

# NSF Regional Innovation Engines

## New York Statement of Principles

The [Regional Innovation Engines \("Engines"\) Program](#), created under the CHIPS and Science Act and to be implemented by the U.S. National Science Foundation ("NSF"), is a program that seeks to catalyze and foster innovation ecosystems across the United States through creating regional-scale, technology-driven, inclusive innovation ecosystems by accelerating key technologies, addressing regional, national, societal, and/or geostrategic challenges, driving economic growth, creating and retaining quality jobs, expanding equitable pathways into careers, and strengthening national competitiveness and security.

To secure additional Engine awards in New York State ("State"), Empire State Development ("ESD") is excited to support one, or more, application(s) that fulfill key state economic development principles and align with state economic development priorities. As such, the application(s) ESD will support must meet both NSF's requirements and the following criteria. A summary of the current proposal must be provided to ESD in order for an assessment to be made on eligibility for ESD support.

### **Key Technology Focus Areas**

The application is encouraged to select at least one of the key technology focus areas outlined by the CHIPS and Science Act that align with ESD priorities, which include:

- Advanced manufacturing
- Advanced materials
- Artificial intelligence
- Biotechnology
- Cybersecurity
- Energy technology
- Quantum information science
- Semiconductors and microelectronics

The **Lead Organization** must demonstrate it has the necessary technological, financial and organizational resources capability, coordination, and vision to lead an Engine grounded in the selected core technology area(s), and fulfill the responsibilities outlined in the [NSF Program Solicitation \("Solicitation"\)](#). The lead must have subject matter expertise in the proposed Technology Focus for the application, as well as the other criteria listed.

The Consortium itself must not only meet the criteria indicated by NSF but for State purposes, also is strongly encouraged to include the following among the discretionary consortia members from NSF:

- labor AND workforce training organizations
- economic development districts or similar
- organizations addressing underserved populations in science, technology, innovation, and entrepreneurship
- venture development organizations or similar to ensure capital/equity access
- K-12 & career/technical education schools
- manufacturing extension partnership centers
- organizations representing underserved communities in economic development

An **organizational chart** outlining the leadership and specific roles of each member of the consortium, including with respect to the key substantive elements of the application in the Solicitation and highlighted below, must be shared with ESD.

The consortium must include the most relevant New York State assets related to its technology focus area including at least one NYSTAR asset.

### **Region of Service & Assets**

Proposals must have a distinct and coherent region of service (as defined by NSF) that has relevant and tightly interconnected assets capital, R&D, workforce capacity, and infrastructure relevant to the technology area. New York will only consider applications where the lead organization is a NYS entity.

### **Equity & Diversity**

This element of the applicant is key for both NSF and the State, and applications should articulate an actionable plan for incorporating it into their plans, including a set of deliverables and measures of success, roles of each partner in the Consortium in the plan, and an explanation of how the Engine, if awarded, would create a significant impact on expanding the value of tech and innovation, and the opportunities the Engine will create, to the broadest range of people both within the target geography but also beyond as the influence of the Engine is realized.

### **Sustainability**

The Engine should outline a reasonable timeline to become a self-sustaining, globally competitive leader in the selected core technology area's market after the 10-year duration of the NSF award.

### **Community Engagement**

Proposals must engage and include historically underserved and underrepresented communities when identifying priorities for the Engine. The proposal must have a plan to boost innovation capacity in a distinct geographic region through an inclusive workforce development strategy.

### **Use-Inspired R&D**

The proposal should have a Use-Inspired R&D strategy, which is research, technology innovations, and knowledge creation driven by the desire for practical solutions to societal challenges and user needs. These technologies should typically be at the Technology Readiness Level (TRL) of 1-5.

### **Workforce Development**

The proposal should have a workforce development strategy that includes career pathways that are accessible (e.g., do not require a bachelor's degree to start on the pathway) and provide equitable access to historically marginalized communities.

### **Translation of Innovation to Practice**

The proposal should outline how the Engine will increase innovation capacity through education and how the Engine will facilitate the commercialization of emerging technologies that bolster national security (advancing them to TRL 6-9). The proposal should also detail ways in which the Engine's operations will support through growth stages, with a focus on ultimately supporting in-state manufacturing.

### **New York State Application Support**

For Engines applicants that NYS determines best meet the criteria listed above, NYS will provide technical support, access to relevant state agencies and data, and assistance in identifying and forging appropriate partnerships. In addition, ESD will provide letters of support to include in the preliminary proposal phase (due to NSF on August 6<sup>th</sup>) and will consider committing during the full proposal phase (due to NSF in February 2025) to provide up to a 20%

match for the first five years of an award, if received. If the application includes states other than NY, match will be provided only towards the portion of the award allocated to NYS entities.

**Interested Parties**

ESD is aware of several consortia coming together and planning efforts in process. Interested parties should contact **Ben Verschueren (ben.verschueren@esd.ny.gov)** and **Brad Willows (brad.willows@esd.ny.gov)** to be considered for NYS support. The state will not support competing proposals.