National Network for Microelectronics Education (NNME):

Regional Node Request for Proposals

Advancing America's microelectronics talent pipeline through collaborative regional ecosystems.

Issued by the SEMI Foundation

Release Date: October 13, 2025
Proposal Submission Deadline: December 22, 2025 • 11:59 PM ET

Contact for Questions: nnme@semi.org

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1. RFP Overview & Key Dates

1.1 Purpose of this Solicitation

The National Science Foundation's National Network Coordination Hub Operator (the "Hub Operator") for the National Network for Microelectronics Education (NNME) is soliciting proposals from regional consortia, hereafter referred to as **Regional Nodes, or "Nodes,"** to accelerate, expand, and improve microelectronics talent development across the United States. Selected Nodes will coordinate education, workforce, and industry partners to launch, scale and deliver high-quality education and training programs, build data-driven continuous improvement systems, and develop and contribute openly-licensed curriculum and training capabilities and best practices across the National Network for Microelectronics Education (NNME) to educate and train the tens of thousands of highly skilled workers needed by the domestic semiconductor industry.

1.2 Key Dates

RFP Key Dates	
Milestone	Date (Eastern Time)
RFP Release	October 13, 2025
RFP Webinar	October 16, 2025 3:00PM ET
RFP Question Submission Deadline	October 25, 2025 1:00PM ET
RFP Webinar 2 (optional)	TBD
RFP Submission Deadline	December 22, 2025 11:59PM ET
Anticipated Award Announcement	March 2026
Project Start Date	Within 30 Days of Award Notification

Note: All dates are subject to change. Any updates will be communicated via the NNME RFP webpage and email notifications to registered interested parties.

2. Background, Vision & Strategic Framework

2.1 Vision for the National Network for Microelectronics Education (NNME)

The National Network for Microelectronics Education (NNME) was established to fulfill a statutory mandate in the CHIPS and Science Act of 2022. Under 42 U.S.C. § 18997(b), the National Science Foundation (NSF), in coordination with the Department of Commerce (DOC), was directed to create the gold-standard[1] national network to support the development, validation, scaling, and delivery of the highest quality education and training programs in microelectronics and semiconductors; promote collaboration among institutions of higher education, industry, and workforce stakeholders; and facilitate the recruitment and preparation of a highly-skilled domestic workforce for microelectronics, semiconductors, and related fields to

[1] https://www.nsf.gov/policies/gold-standard-science

provide opportunities for economic prosperity to all Americans and ensure U.S. leadership in semiconductor technologies.

The NNME is a geographically distributed national infrastructure dedicated to solving the country's microelectronics talent crisis. It achieves this goal by leveraging, building on, expanding and improving regional strengths; developing and coordinating scalable education and training efforts; and ensuring national alignment across employers, education institutions, and workforce systems. The NNME Hub operator leads the overall coordination and implementation of this federal priority. The NNME is establishing the worlds'-leading microelectronics education and training ecosystem to secure American global leadership in innovation, competitiveness, prosperity, and national security. The NNME will build a coordinated national effort that prepares Americans for high-quality careers in the semiconductor industry across all education levels and job types.

Key Objectives of the NNME

- **Set the Gold Standard**: Deliver cutting-edge, industry-aligned education and training spanning high school through Ph.D. and lifelong learning, ensuring the U.S. workforce (from technicians to engineers and scientists) has the skills to meet evolving industry needs.

- **Build a National Network**: Establish Regional Nodes as area-based consortia that align local education and workforce assets with industry needs, through engaging schools, colleges, universities, industry, and workforce and economic development organizations to create a world-class microelectronics education and training ecosystems.

- **Strengthen Workforce Pathways**: -Determine in-demand occupations and skills, create expand degree and certificate pathways, create stackable credentials, and provide up- and reskilling opportunities for veterans and mid-career workers.

- **Modernize Education Infrastructure**: Develop a digital system to share curricula, best practices, and instructional materials nationwide.

- **Enable Hands-On Training**: Expand access to specialized equipment and facilities to prepare learners for manufacturing, design, and research jobs from day one.

- **Scale Workforce Development**: Educate and train tens of thousands of Americans, expand outreach to all Americans, and apply evidence-based recruitment and retention practices.

- **Invest in Educators**: Strengthen faculty professional development and incentivize hiring to expand teaching capacity and effectiveness.

- **Increase National Competitiveness and Security**: Support a resilient domestic talent pipeline for critical semiconductor occupations to reinforce economic and supply chain security

- **Ensure Accountability**: Track student and worker readiness, job placement, career alignment, and retention, driving continuous improvement and national accountability.

National Coordination

NNME Hub Operator serves as the national coordinating body and primary liaison to other Government funded microelectronics workforce initiatives: promoting interoperability, avoiding duplication, and leveraging other Federal, State, and local investments. The Hub also provides leadership to ensure NNME and other programs operate within a cohesive, data-driven framework that accelerates talent development and delivers measurable results nationwide.

Impact

The NNME will deliver a unified national approach to microelectronics education and workforce development that expands opportunity for all Americans, secures U.S. leadership in semiconductor innovation, manufacturing and design capabilities, and strengthens the nation's economic and national security.

2.2 NNME Activities

The specific activities expected of the NNME, including the National Network Coordination Hub and the Regional Nodes and their performers and participants are outlined herein. It should be noted that the NNME is expected to be a constantly evolving infrastructure program to meet the needs of a developing and fast-paced industry. Therefore, all performers will be expected to not only be comfortable with change, but fully embrace it

Educate and Train Sufficient Numbers of Skilled Workers

- The overarching objective and goal of the NNME program is to educate and provide training to sufficient numbers of skilled workers for the U.S. semiconductor industry, across all job types, education levels, and regions, delivering excellent talent to industry at the time it is needed.
- The NNME will develop the means for predicting how many workers are needed as a function of time, education and/or training level, job type, and region. An important component of this will be for the NNME to develop data sharing methods with the semiconductor industry and other Government funded investments.

Select and Manage the Regional Nodes to Form the NNME

- The Hub will collaborate with NSF to execute a merit review-based competition consistent with 42 U.S.C. § 18997(b) to select, fund, and oversee some number of Regional Nodes that will serve as coalitions of regional performers, programs and centers that will develop and catalyze new and existing efforts meant to fully prepare individuals for roles in the microelectronics workforce. The Regional Nodes will enlist performers (both funded and unfunded) to participate in the NNME over time as needed to ensure that the NNME is able to adapt to the changing landscape of both the nation's semiconductor education and training capabilities and industry's needs. The Regional Nodes will be knowledgeable and connected to the regions where employers, learners and educators operate and will be therefore positioned to tailor the activities to the workforce needs in their respective regions.

Provide a Neutral and Independent Platform to Foster Collaboration and Coordination

- The Hub will foster collaboration and tight coordination across the NNME performers and activities to make the best use of the expertise of national and regional stakeholders and contributors.
- The Hub will ensure they are deconflicted from any potential or perceived conflicts of interest that may bias the establishment and coordination of Regional Nodes.
- The Hub will develop relationships with other Federal investments and programs and leverage these capabilities for the NNME.

Ensure Industry Relevant Skills

- Education and training capabilities provided by the NNME, particularly, but not limited to curricula, at all education levels:
    - Should provide sufficient specialized skills needed by industry as well as be sufficiently broad for learners to have transferable skills to new jobs.
    - Should be based on industry-recognized knowledge, skills and abilities (KSAs).
    - Should be developed in collaboration with industry to ensure the education and training activities effectively prepare individuals for jobs in industry and focus on the needs of learners and workers.
    - Should remain modern and stay up to date with the latest industry-grade tools and software.

Engage Early Learners

The Hub's activities and the NNME should address the need to develop new capabilities to encourage K-12 students to become interested and engaged in microelectronics education and career paths and develop effective methods for early learners to be exposed to the importance of microelectronics, important uses of microelectronics, and what it is like to have a career in the microelectronics industry.

Promote Flexible and Transferrable Credentials

- Through its activities and offerings, the NNME will work to address the need for:
    - Stackable credentials and certificates fully aligned with the demand to provide learners with the ability to continuously upskill themselves when desired or needed, including lowering barriers for worker re-skilling and re-training across industries and occupations.
    - Trade schools and community college certificates and degrees to be readily and fully transferrable to four-year colleges and universities (including the establishment of transfer articulation agreements and standards and certification processes for certificates and associates degrees) to ensure that the credits learners earn are useable for furthering their education at other institutions.

Innovate and Incorporate Experiential Learning and Technology

- The education and training programs developed by the Hub and/or its regional performers should bring artificial intelligence (AI)-augmented learning approaches, as well as any new suitable and capable technologies as they may become available, to program development including personalized AI tutors, intelligent instructional materials, digital twins, etc. where applicable and appropriate.

- The Hub and Regional Nodes should infuse AI, virtual reality, digital twins, and other technologies into training programs as appropriate. Taking this approach can enable learners to be prepared to manage new technologies and enable the NNME to reach all Americans.
- The NNME should incorporate experiential learning into curricula and training programs, including meaningful lab and/or industry experience prior to completion of training or education as appropriate.

Support Quality Jobs

The NNME should enable learners to have the opportunity to secure high quality jobs that ensure all workers are paid a stable, predictable living wage, receive basic benefits (e.g., paid leave, health insurance, retirement/savings plan), and have safe working conditions. The activities of the NNME should address:

  - The need to serve and/or include veterans.
  - The need for innovative training programs for incumbent workers, including pre-apprenticeships and Registered Apprenticeships.
  - The need for re-employment and re-training programs for dislocated workers.
  - The need for family-sustaining wages and benefits.
- The Hub should consider creating or leveraging existing mechanisms that connects individuals with opportunities across the nation (e.g., a job and candidate database). This platform could serve as one location where employers can find learners trained via relevant NNME-sponsored or supported programs.

Provide Opportunities for All Americans

- The Hub and by extension the NNME should reach learners from all backgrounds and make opportunities for careers in microelectronics available to all Americans.
- It is crucial that the benefits of the program reach as many communities as possible throughout the U.S. and that all interested Americans have the necessary and relevant support required to participate in and benefit from this program.

Remove barriers for Learners

- It is expected that the Hub and NNME will identify and offer services learners may need to complete their education for employment in industry.
- The full NNME will be responsible for forming partnerships with organizations, local government, and other partners to support the delivery of learner-assistance services effectively, as appropriate. The Hub and NNME will work with providers to ensure that learners are provided the resources they need to overcome barriers to help grow the talent pool for industry.

Ensure Financial Sustainability and Enduring Support

- An important goal of this program is financial sustainability. NSF anticipates funding the creation and growth of the Hub and the NNME for a limited period of time. Therefore, the NNME, led by the Hub, will be expected to explore and develop the means to sustain operations beyond the funding period through a variety of mechanisms, including, for example, industry support and fees.

2.3 NNME Hub Operator Strategic Role

Under the authority of 42 U.S.C. § 18997(b), the SEMI Foundation was selected by the National Science Foundation, in cooperation with the U.S. Department of Commerce, as the coordinating entity referred to as the “Hub Operator” for the National Network for Microelectronics Education (NNME).

As Hub Operator, the SEMI Foundation ensures that NNME, including NNME Hub, Regional Nodes and their performers and participants, collectively achieves its vision as the gold standard for employer-aligned training: delivering modernized curriculum at scale, work-based learning opportunities that provides opportunities to all Americans for pursuing quality jobs, and strengthening U.S. innovation and prosperity. Its statutory role includes coordinating participating entities, supporting the improvement and expansion of microelectronics education and training programs, facilitating workforce recruitment and preparation, and managing national infrastructure, evaluation and reporting systems, including standardized data collection on learner readiness, job placement, post-placement career progression, and responsiveness to changing industry needs. This designation establishes the NNME Hub Operator as the national backbone for microelectronics workforce development under the CHIPS and Science Act.

The NNME Hub Operator fulfills these responsibilities by providing:

- **Strategic leadership and national coordination**, ensuring alignment and synergy in activities and goals across Regional Nodes, federal initiatives, and industry efforts;
- **Technical assistance and capacity-building resources**, including tools for governance, curriculum modernization, access to industry experts, data systems, and employer engagement;
- **A shared digital infrastructure**, such as the NNME curriculum clearinghouse, Customer Relationship Management (CRM) and Key Performance Indicator (KPI) platforms, and career exploration portal; and disseminate education and training capabilities and best practices across the country and maximize their societal impacts;
- **Performance monitoring and evaluation oversight**, including standardized metrics and KPIs, quarterly reporting, accountability and continuous improvement protocols, as well as benchmarking across Regional Nodes to identify barriers to placement and career alignment;
- **Communications**, including executing communications campaigns to raise awareness of and interest in careers in the semiconductor industry; and showcase accomplishments of the NNME to key stakeholders and the general public;
- **Facilitation of cross-regional collaboration**, through national Communities of Practice, peer learning exchanges, and annual convenings.

The Hub will also identify and utilize other activities in support of the mission and goals of the National Network over time. The NNME Hub Operator serves as the primary liaison to other federally and Government funded microelectronics and semiconductor education and workforce development efforts to promote interoperability, avoid duplication, and maximize leveraging and utilization of the nation’s collective capabilities and resources. Its leadership ensures that Regional Nodes operate within a nationally cohesive, data-informed framework designed to accelerate talent development and deliver measurable results across

the country.

2.4 NNME Strategic Pillars

The NNME is built upon three interdependent strategic pillars that guide Regional Nodes in designing, developing, delivering, and scaling microelectronics workforce solutions. These pillars reflect the priorities articulated in the CHIPS and Science Act of 2022 and are structured to align with the statutory responsibilities of the NNME coordinating entity under 42 U.S.C. § 18997(b)(2).

Together, these pillars operationalize NNME's role as the gold standard for employer-aligned training, ensuring consistency, accountability, and impact across the national network, maximizing opportunities for all Americans:

1. Network Engagement

Establish and sustain collaborative regional ecosystems that are deeply integrated with national goals.

- Launch and maintain robust regional consortia composed of employers, education and training providers, workforce agencies, and other strategic partners.
- Actively participate in NNME's national Community of Practice and cross-node peer learning activities.
- Align regional implementation with national milestones and coordination structures defined by the NNME Hub Operator and contribute standardized data to support shared learning and performance monitoring.

2. Curriculum & Pathways

Develop, expand and improve education and training aligned to current and future industry needs.

- Leverage labor market information and employer input to co-design relevant entry points, pathways and credentials and validate their effectiveness through learner readiness and placement data.
- Modernize and openly share peer reviewed microelectronics curriculum using the NNME clearinghouse and national standards.
- Embed stackable, industry-recognized credentials and work-based learning models across regional programs.
- Adopt evidence-based instructional strategies that meet the needs of different learning styles across K–12, postsecondary, and adult education.
- Curriculum and pathways must be systematically reviewed and updated to reflect emerging technologies and changing industry demand, with adjustments documented through NNME's evaluation framework.

3. Increasing Participation

Ensure all Americans have access to microelectronics careers.

- Conduct targeted outreach and awareness campaigns to increase visibility of microelectronics career pathways, working in partnership with employers, educational institutions, and workforce development systems.
- Engage youth and other populations through early exposure programs, local events, and content design that connect early interest to sustained preparation and career entry.
- Track and report disaggregated participation and outcome data including learner readiness for placement, job matching effectiveness, post-placement career progression, and satisfaction, using national tools and frameworks provided by the NNME Hub Operator.

These pillars operationalize the coordinating entity's statutory functions, including the development and validation of education and training programs, the facilitation of workforce recruitment, and the coordination of national and regional activities, as outlined in 42 U.S.C. § 18997(b)(2). By organizing around this framework and leveraging the infrastructure and technical support provided by the NNME Hub Operator, each Regional Node helps advance a scalable, resilient, and skilled national microelectronics workforce strategy that sets the gold standard for employer-aligned training and ensures measurable successful outcomes for learners, employers, and the nation.

2.5 Hub-Provided Technical Assistance & National Infrastructure

Pursuant to 42 U.S.C. § 18997(b)(2)(A)–(D), the NNME Hub Operator is authorized to coordinate the activities of the Network, support the development and validation of training programs, facilitate the recruitment and preparation of a skilled workforce, and manage data and dissemination infrastructure. To fulfill this statutory charge, the NNME Hub Operator provides each Regional Node with structured technical assistance and access to shared national infrastructure, enabling Nodes to maximize their local impact while aligning with a cohesive national strategy. This support ensures that each Node not only launches and operates effectively but also measures and reports on outcomes such as learner readiness, placement effectiveness, post-placement career progression, and employer satisfaction; core benchmarks of the NNME's gold-standard approach.

The Hub's support is delivered across three integrated areas:

Targeted Technical Assistance

The NNME Hub Operator offers expert guidance and tools to accelerate Node start-up, implementation, and continuous improvement:

- **Governance & Coalition Building:** Templates for contracts, Memorandums of Understanding (MOU) and charters, facilitation guides, and quarterly "consortium clinics" to support effective and broad regional governance with an emphasis on deep regional representation that ensures all relevant employers, educators, and workforce actors contribute to Node governance.
- **Curriculum Modernization:** Access to subject-matter experts, industry-aligned curriculum rubrics, and curated modules to support the development of high-quality, portable training to support the development of high-quality training that demonstrably improves learner readiness for job placement. Standardized and industry-recognized KSAs to ensure education and training activities align to industry's needs.

- **Data & Continuous Improvement:** Standardized KPIs interactive dashboards, and quarterly data webinars that allow Nodes to track progress and adapt in real time, as well as metrics on readiness for placement, job matching efficiency, career alignment, and retention.
- **Employer Engagement & Sustainability:** Employer playbooks, ROI calculators, and match-making workshops to drive co-investment and long-term financial viability with measurable improvements in trainee hiring and retention.
- **Youth Outreach & Awareness:** Toolkits for social campaigns, event templates, and pop-up programming guides to expand early exposure, build awareness of career opportunities, and connect early engagement to sustained preparation and eventual placement.

Shared Digital Infrastructure

The NNME Hub Operator maintains a federated, cloud-based infrastructure that enables consistency and collaboration across the Network. This comprehensive national system is integrated with other Federal programs and activities, making them accessible and easy to navigate for learners to determine the learning pathways that best serve their needs and goals.:

- **LCMS (Learning Content Management System):** A modular, open-access digital platform for storing, sharing, and versioning microelectronics curricula. Regional Nodes may upload content for national use and adapt approved modules for local implementation.
- **Career Navigation:** Nodes will have access to a personalized career navigation platform that uses AI to help learners explore microelectronics roles, identify relevant skills gaps, and generate tailored training plans aligned with regional program offerings.
- **Learner Experience & Employer Matching Tools:** NNME's digital footprint will also feature support wraparound services by integrating resumes, credentials, and interest inventories into individualized learner journeys that will connect to actual employer job opportunities while measuring placement rates, time-to-hire, and alignment between training and jobs secured.
- **CRM & KPI Portal:** A unified platform for quarterly data submissions, real-time performance dashboarding, and reporting compliance enabling standardized, comparable reporting across all Nodes to ensure accountability and continuous improvement.

Learning Community & National Events

To foster knowledge sharing, peer mentorship, and scalable innovation, the NNME Hub Operator facilitates:

- **Monthly Communities of Practice (CoPs):** Rotating cross-node peer groups; each Node co-leads at least one session per year.
- **Annual NNME Convening:** A two-day national summit with employer panels, policy roundtables, and "innovation showcases."
- **Peer Exchange Opportunities:** Travel stipends to support inter-Node learning through site visits and virtual shadowing experiences.
- **Evaluation and Dissemination**: Annual synthesis reports highlighting lessons learned, successful strategies, and comparative performance across Nodes.

3. Definition of a Regional Node & Eligibility Requirements

3.1 What Is a Regional Node?

Regional Nodes are the core implementation partners and education and training providers of the National Network for Microelectronics Education (NNME), established under 42 U.S.C. § 18997(b) through the CHIPS and Science Act of 2022. Awards made under this authority (42 U.S.C. § 18997(b)(4)) are intended to fund regional, sectoral and local consortia that deliver training and education programs aligned with national priorities and tailored to meet the evolving needs of the microelectronics industry. More information on program specifics may be found in the Solutions Offering for the Hub Operator, you may access it here.

Each Node advances the NNME's role as the national gold standard for employer-aligned training, ensuring local innovation is integrated into a cohesive, outcomes-driven national system. Nodes operate as regionally grounded consortium of employers, education and training providers, workforce organizations, and community partners. Nodes are responsible for designing and implementing education, training and workforce solutions that reflect local context while contributing to a nationally cohesive talent development system that emphasizes employer participation, successful hiring outcomes, and long-term workforce sustainability.

Consortia are encouraged to leverage, align, and braid existing public and private resources, as well as seek and secure additional public funding support to augment their Regional Node activities.

Regional Nodes will be funded to carry out key activities and functions consistent with the statutory intent of the program, including:

1. Designing, delivering, and disseminating industry-aligned training programs, including curriculum and training development and sharing of best practices across the NNME network while tracking outcomes such as learner readiness, placement rates, and job alignment (42 U.S.C. § 18997(b)(4)(A));
    - As part of this, the Nodes will work with the Hub, other Regional Nodes, industry and other Government agencies to develop uniform sets of knowledge, skills and abilities (KSAs) required for employment in semiconductor industry jobs at all education levels and job types. The curricula developed by the Hub and/or its regional performers should bring artificial intelligence (AI)-augmented learning approaches, as well as any new suitable and capable technologies as they may become available, to curriculum development including personalized AI tutors and intelligent instructional materials, where applicable and appropriate. The Regional Nodes should infuse AI, virtual reality, digital twins, and other technologies into training programs as appropriate. Taking this approach can enable learners to be prepared to manage new technologies and enable the Hub to reach all Americans.
    - Training development should address dissemination and delivery via methods such as train-the-trainer programs for faculty and instructors, and facilitate adoption of industry-standard education and training tools to ensure scalable, high-quality delivery across regional partners.

- Regional Node and their performers are encouraged to propose new and novel methods of education and training that are proven effective.

2. Developing strong regional partnerships with two-year and four-year colleges, graduate school programs, workforce programs, economic development organizations, and industry to build a national technical workforce that can be accessed by all Americans. (42 U.S.C. § 18997(b)(4)(B));
3. Building local workforce pipelines that align with semiconductor-related investments by industry and government, including vocational training, community college pathways, veteran transition programs, and high school engagement (42 U.S.C. § 18997(b)(4)(C));
4. Facilitating partnerships with employers and employer consortia to offer apprenticeships, internships, and applied learning experiences, with shared responsibility for measuring hiring, retention, and satisfaction outcomes. Solicit and braid industry support (e.g., sponsorships for internships, co-ops, and apprenticeships) to expand applied learning capacity and long-term sustainability. (42 U.S.C. § 18997(b)(4)(D));
5. Contributing to shared infrastructure (physical or digital) that enables experiential learning and access to industry-standard tools and training environments (42 U.S.C. § 18997(b)(4)(E)), including providing access to microelectronics design and fabrication infrastructure and resources, including design and verification tools, clean rooms, chip fabrication, packaging, testing and characterization facilities, for hands-on training and education. Provision of such resources will be through physical access to the facilities within the respective geographic vicinity and/or remotely through the cloud (as appropriate). In addition to providing access, implement a robust model to provision and track trainee access (physical and cloud) to tools and facilities for hands-on learning.;
6. Conducting public outreach and awareness activities that increase visibility of microelectronics careers, particularly through engagement with PreK–12 education and STEM-focused organizations, culminating in a robust outreach plan (including PreK–12 and the general public) and processes to identify and address region-specific workforce needs." (42 U.S.C. § 18997(b)(4)(F));
7. Collaborating, coordinating and leveraging with existing and newly formed microelectronics education, training and workforce initiatives at the state, federal (NSF, DoD, DOC, DOE, etc.), local and industry levels to ensure alignment and resource sharing (42 U.S.C. § 18997(b)(4)(G)).

Each Node must also demonstrate capacity for broad industry awareness outreach, data-informed improvement, and long-term sustainability. At minimum, Nodes will track standardized metrics on learner readiness, job matching effectiveness, post-placement career progression, and responsiveness to industry change. Selected Nodes will receive technical assistance, shared tools, and strategic coordination from the NNME Hub Operator, as authorized by 42 U.S.C. § 18997(b)(2)(A)–(D). Moreover, it should be understood that the Regional Nodes and their performers and participants will work with the collective NNME to perform the activities recited in Section 2.2.

Together, these activities ensure that every Regional Node contributes to the NNME's national vision: a resilient, skilled, and industry-responsive workforce pipeline which sets the gold standard for employer-aligned training in microelectronics. It is understandable that not all activities will be pursued at the onset of

the Regional Nodes and their performers and participants, but they must be established within one year from the start of the award.

3.2 Eligible Lead Organizations

To ensure proper oversight, effective coordination among a multiplicity of varied organization types, and alignment with statutory intent under 42 U.S.C. § 18997(b)(4), the lead applicant (prime recipient) must be a U.S.-based public or nonprofit entity with the legal and administrative capacity to manage sub-awards and serve as the primary convener of a multi-stakeholder regional consortium.

Eligible lead organizations include:

- Community or technical colleges.
- Four-year colleges and universities.
- Workforce development boards or workforce intermediaries.
- Industry associations or sector partnerships.
- Economic development agencies.
- Nonprofits.

The lead applicants must be able to:

a) rapidly enter into sub-agreements with multiple regional partners (i.e., days, not months);

b) track and report key performance indicators in accordance with NNME Hub protocols, including learner readiness for placement, job matching effectiveness, post-placement career progression, and responsiveness to industry change;

c) serve as the administrative and programmatic liaison to the NNME Hub Operator; and

d) ensure regional alignment with statutory functions under 42 U.S.C. § 18997(b)(2)(A)–(D), including curriculum and training development and delivery workforce recruitment, and coordinated outreach.

Note: For-profit entities may participate as consortium partners or subrecipients but are not eligible to serve as the lead applicant.

Each lead organization is required to identify a Regional Node Program Manager and any other senior/key personnel.

- For the purposes of this solicitation, a Regional Node Program Manager is the individual employed and designated by the lead organization who has the appropriate level of authority and responsibility for leading and directing the effort. An eligible Regional Node Program Manager can be listed in only one proposal in response to this solicitation and may not support a subaward on any additional proposals.
- For the purposes of this solicitation, senior/key personnel include the individuals designated by the lead organization who will contribute in a substantive, meaningful way to the execution of the

project. Eligible senior/key personnel who are not the designated Regional Node Program Manager on a proposal may be included on multiple proposals.

The Regional Node Program Manager and any other senior/key personnel identified in the proposal must hold an appointment at an organization that is eligible to submit a proposal under this solicitation.

3.3 Required Consortium Composition

Each Regional Node must be structured as an area-based consortium composed of partners who collectively reflect the educational, training, and workforce development capacity and can meet the workforce needs of the region. This structure is consistent with 42 U.S.C. § 18997(b)(4)(B), which requires the formation of regional partnerships among associate-degree- and bachelor-degree-granting institutions, workforce development programs, industry, and others to ensure that education and training efforts are responsive to evolving national needs. These partnerships must also commit to measuring and reporting outcomes such as learner readiness, placement rates, job alignment, and employer satisfaction, ensuring that education and training efforts are demonstrably effective and at the highest quality level

At minimum, each Node consortium must include:

- **One or more postsecondary institutions** that delivers workforce-relevant training (e.g., a community or technical college, four-year college, or university);
- **One or more regional and/or national employers** in the microelectronics, semiconductor, or related manufacturing sectors that are committed to co-designing education and training programs, and to hiring NNME learners who have completed or participated in NNME education and training initiatives.
- **One or more workforce development organizations**, such as a workforce board, training providers, or workforce intermediary with responsibility for connecting learners to registered apprenticeships, internships, and job placement services;
- **One or more additional partners** from the broader regional ecosystem, such as:
    - K–12 school district or STEM-focused nonprofits;
    - Economic development agencies;
    - Industry associations or sectoral partnerships;
    - Training providers;
    - Government agencies supporting education, training, or workforce development.
    - Professional associations and credentialing bodies;
    - Community-based organizations and service providers offering services for learners (e.g., housing, childcare, transportation) that expand access and reduce barriers to completion, with outcomes tracked and reported through the NNME Hub framework; and,
    - Chambers of commerce and local government agencies.

It is the sole responsibility of each proposing Regional Node to determine the composition of its consortium, including the type and number of partners involved. Nevertheless, the proposed must be able to correctly and adequately address the semiconductor industry's workforce needs in that respective region. Further, the

proposing Regional Node will need to provide evidence to effectively demonstrate that their consortium has the correct composition to successfully address the industry's workforce needs that that region.

Regional Node proposers may include partners in their proposed efforts that do not require or want funding support as "unfunded partners" in their efforts. Proposers should describe what these unfunded partners will contribute to their efforts.

The composition of each consortium must reflect a commitment to building workforce pathways that are available to Americans in all communities and geographies. Consortia should be structured to enable shared governance, clear decision-making processes, accountability to statutory functions under 42 U.S.C. § 18997(b)(2)(A)–(D), and sustainable operations beyond the period of federal funding.

Letters of commitment or memoranda of understanding must be included from all consortium members, affirming their active role, specific contributions, engagement in joint planning and execution, and agreement to participate in standardized data collection and data sharing, and reporting protocols established by the NNME Hub Operator. The lead applicant will serve as the fiscal agent and point of accountability for the full consortium.

3.4 Geographic Scope

Each Regional Node must be anchored in a specific U.S. geographic region with demonstrated potential to contribute to the expansion of the domestic microelectronics workforce. As authorized in 42 U.S.C. § 18997(b)(4)(B)–(C), Regional Nodes are intended to strengthen local and regional pipelines by aligning education and training efforts with industry presence, workforce demand, and existing or planned semiconductor-related investments. Eligible regions should include cross-state regional labor markets with shared industry infrastructure. Regional Nodes must also demonstrate the ability to scale their impact beyond immediate local boundaries, ensuring that lessons learned, training models, and outcomes can inform and strengthen the national NNME system." It is understood that some activities, such as design capabilities, may extend beyond that the Regional Node's defined region for broader accessibility and greater efficiencies.

Applicants must clearly define their proposed region and provide evidence-based rationale based on factors such as:

- Existing or anticipated semiconductor and microelectronics employers, including evidence of employer commitments for hands-on training, co-development of education and training programs, and the hiring of NNME program graduates.
- Workforce supply-demand imbalances and projected needs, with analysis aligned to national NNME metrics on readiness, placement, and job alignment.
- Education and training capacity, including the ability to embed portable, stackable credentials and adapt programs to emerging industry needs.
- Presence of federal or state-designated innovation clusters, economic development zones, CHIPS-related investments, and/or other Government investments, and how these will be leveraged by the NNME to further advance successful workforce outcomes.

Importantly, each Regional Node is required to provide a fact-based convincing explanation and justification of their specific "value-add," backed by data, that their proposed Regional Node geographical extent, composition of performers, partners and participants, is the correct one to address that region's workforce needs. As part of this, the Regional Nodes should have developed a complete and accurate landscape and SWOT analyses of their respective regions. These analyses should be based on present as well as future circumstances to the extent possible. Proposer should submit these analyses as well as the results in their submissions.

While each Node is regionally grounded, participation in the NNME is national in scope. Awardees must contribute to shared goals, curricula, and systems coordinated by the NNME Hub Operator, as outlined in 42 U.S.C. § 18997(b)(2)(A) including contributions to shared curricula, standardized data systems, and evaluation frameworks that track readiness, placement, and long-term career outcomes. Together, these commitments ensure that regional activities advance the NNME's national vision: building the gold standard for employer-aligned training, producing measurable outcomes for learners and employers, and strengthening U.S. innovation and prosperity.

3.5 Additional Eligibility Requirements

- **Operational Readiness:** Applicants must demonstrate the ability to begin implementation activities within 30 days of award execution. This includes having a staffing and fiscal structure including, but not limited to, having a full-time node manager in place to receive and distribute funds, launch programming, and engage consortium partners without delay. Plans must also describe how operational capacity will be sustained beyond initial federal funding to ensure durable regional impact, in alignment with the national urgency outlined in 42 U.S.C. § 18997(b).
- **Data Reporting Capacity:** Applicants must agree to adopt NNME-wide data standards and submit quarterly reports to the NNME Hub Operator. These reports will include structured KPI extracts and accompanying narrative summaries, these may include, but are not limited to[2]:
    - (i) learner readiness for placement;
    - (ii) effectiveness of job matching and placement outcomes (including time-to-hire and job alignment);
    - (iii) post-placement career progression, retention, and satisfaction;
    - (iv) responsiveness of curricula and training to emerging industry needs; and
    - (v) node adoption of NNME digital platforms.

This requirement is consistent with 42 U.S.C. § 18997(b)(2)(D).

- **Intellectual Property Sharing:** Applicants must commit to contributing nonproprietary curricula, toolkits, and training materials listed as Open Educational Resources (OER) to the NNME's openly-licensed digital repository. Contributions must be documented with metadata and aligned to nationally defined frameworks, ensuring resources can be scaled and adapted across the network.

[2] Please refer to Appendix A for the full KPI table and data dictionary

This supports the statutory intent to disseminate best practices and scale high-quality education and workforce resources across the network, as authorized in 42 U.S.C. § 18997(b)(4)(A) and 42 U.S.C. § 18997(b)(2)(C).

3.6 Ineligible Entities

Applications will be deemed ineligible if the lead organization:

- Is headquartered outside the United States.
- Is debarred or suspended from federal funding.
- Lacks a D-U-N-S/UEI number or active SAM.gov registration.

3.7 Compliance with Federal Regulations

All awards will follow applicable federal regulations, including, but not limited to, passages referred to in Section 9 and 10. Nodes must participate in any oversight, evaluation, or audit activities required by the National Science Foundation including adoption of NNME-wide data standards and cooperation in cross-Node evaluations of readiness, placement, and post-placement outcomes, pursuant to 42 U.S.C. § 18997(b)(2)(D).

4. Available Funding & Period of Performance

4.1 Funding Overview

An initial amount of up to $5 million per Regional Node is available for Year 1, with follow-on year funding dependent on the availability of funds and evaluation of performance/collaboration. Each Regional Node will function as a sub-contractor of the Hub Operator's Prime Award and will function to perform activities in furtherance of the Prime Contractor obligations under the Prime Award (an Other Transaction or "OT" as agreed upon by the Hub Operator and the National Science Foundation). It is requested that proposers familiarize themselves to the extent possible with OT contracting processes since there are major differences from OTs compared to financial assistance types of awards such as Grants. Importantly, OTs are performance-based contracts wherein performers are paid according to the successful completion of previously agreed upon milestones. Further, many milestones will be quantitative in nature.

4.2 Allowable & Unallowable Costs

Federal funds are to be used only for costs that a reasonable and prudent person would incur in carrying out this award.

For budget planning purposes, the following expense categories are generally permissible provided they align with the approved budget and relate directly to Node activities. Cost categories are pre-filled in the Budget template; utilize the Budget Narrative to describe the cost breakdowns as described below.

- **Direct Labor** - Breakdown of direct labor identifying the individuals, labor categories, pay rates, and projected level of effort devoted to the project, and their associated subtotals.
- **Fringe Benefits** - Rate(s) and base(s), and the cumulative effect on labor costs.
- **Travel** - Breakdown of estimated travel and transportation costs. Please be as detailed as possible, but we are aware it's impossible to accurately detail to the person/trip what future travel will look like at this stage.
- **Equipment** - Description and cost of equipment. Include the basis of the cost estimate (e.g., historical data, competitive market quotes, and in-house transfers).
- **Supplies** - Description and cost of supplies. Include the basis of the cost estimate (e.g., historical data, competitive market quotes, and in-house transfers).
- **Subcontracted Services** - Breakdown of each organization or individual's expertise, primary organizational affiliation, normal hourly or daily compensation rate, and number of days of expected service, as well as any expected travel costs.
- **Subawards** - For proposals that contain one or more subawardees, such as funded performers, include a separate subawardee budget for each planned entity that provides a comparable level of detail to the budget submitted for the overall proposal.
- **Other Direct Costs** - Breakdown of other direct costs not already included elsewhere in the budget.
- **Indirect Costs** - Indirect costs are capped at the federally recognized de minimis rate.

Examples of Unallowable Costs:

- Lobbying or political contributions.
- Capital equipment (>$25,000 per unit) without prior written approval.
- Alcohol, entertainment, or nonbusiness meals.

4.3 Period of Performance

The expected total period of performance of the Regional Nodes, based on available funding, is up to five years. Regional Nodes awarded though this RFP will be initially funded for 1 year with follow-on year funding dependent on the continued availability of funds, evaluation of performance, and future workforce needs of industry. Each year, the Regional Nodes will be required to negotiate with the NNME Hub Operator a set of KPIs, metrics and milestones that they will achieve in the coming year, including a milestone-based payment schedule.

Initial Contract Term: 1 year (12 months), extendable for up to five years total.

Start Date: Within 30 days of award notification and subaward execution.

4.4 Continuation Funding Criteria

Funding for regional nodes is currently projected to be available for a maximum of 5 years from the start date of awards. Nodes will be considered for renewal funding based on:

1. **Successful achievement of deliverables and payment-based milestones and KPIs.**
2. **Compliance & Fiscal Stewardship**. Timely submission of invoices, reports, and audit documentation.
3. **Availability of funding.** Awards are contingent on federal funding from NSF.
4. **Contribution to NNME Goals and Learning Network**. Active participation in Communities of Practice, curriculum portal uploads, and effectiveness of geographic reach.

Failure to meet minimum performance or compliance standards may result in funding reduction, suspension, probation, or termination.

5. Application Instructions & Required Components

5.1 Submission Format & Portal Access

- **Submission Method:** RFP responses will be accepted at https://semifoundation.submittable.com/submit
- RFP responses will be completed and submitted through the platform mentioned above.
- Some sections require a template to be downloaded, completed, and uploaded back into the portal. Links for those files can be found both in the platform itself, and at https://nnme.org/rfp-forms/
- **File Naming Convention**: **<YourOrg>_ Node_<DocTitle>.pdf**
  e.g., "GreatLakes_Node_BudgetNarrative.pdf"
- **Deadline:** December 22, 2025 • 11:59 PM ET (see § 1.2). Late submissions will **not** be accepted.

5.2 Proposal Content & Submission Requirements

Part	Format	Content & Requirements
Section 1: Lead Applicant Information	Web Form	• Lead org details: name, address, UEI. • Authorized Representative: name, title, email, phone • Point of Contact for questions (if different)
Section II: Proposal Details	Web Form	**A.** Vision
	Web Form **File Upload**	**B.** Regional Context, Industry Demand & Geographic Scope (including Landscape & SWOT Analysis) **• Map of Regional Resources & Partners**
	Web Form	**C.** Organizational Capacity & Collaborative Experience
	Web Form	**D.** Approach & Implementation Plan
	File Upload	**E. Activities/Timeline/KPIs Table**; list completely the anticipated activities, timeline and KPIs of the regional node in Y1, aligned with sections 2+3.
Section III: Budget & Budget Narrative	Web Form **File Upload** **File Upload**	• Y1 High Level Budget Overview • **Detailed Costs Budget** • **Budget Narrative:** complete template explaining Year 1 cost bases, allowable categories, and any leverage/match contributions you anticipate. Include Subaward Budgets and Narratives following your narrative.

	File Upload Web Form	• **Proposed Milestone Payment Schedule:** complete template; propose milestones and payments aligned with Y1 budget and deliverables stated in Activities/Timeline/KPIs. • Long-Term Financial Model: Provide a rough-draft Year 2 budget and financial model considering sustainability strategies (e.g., industry fees, philanthropy, service contracts) for Y2 and beyond.
Section IV: Data Management & Privacy Plan	Web Form	Plans for data collection, storage, sharing, preservation, licensing, and privacy safeguards
Section V: Letters of Commitment	**File Upload**	**One-page, signed letters from:** • Employers (hiring projections, WBL slots, in-kind support) • Subawardees (scope of work and unique qualifications)

5.3 Narrative Guidance for Section II, Parts A–E

PART A. VISION (1,500 WORDS, TEXT ENTRY)

Please provide a concise, non-technical overview that covers:

- **Regional Need:** What specific microelectronics/semiconductor workforce gaps or hiring demands drives this proposal?
- **Your Approach:** What is your vision to marshal partners and NNME Hub resources to close those gaps?
- **Year 1 Outcomes and Impacts:** What are the highest priority results will you deliver (e.g., curriculum modules updates, credentials awarded, hires, program improvements) and what are their impacts?

PART B. REGIONAL CONTEXT, INDUSTRY DEMAND & GEOGRAPHIC SCOPE (3,000 WORDS, TEXT ENTRY)

Please describe the following to demonstrate why your region and network make you a strong NNME Node candidate:

- **Network Geographic Reach, Scale & Composition:** What is the geographic span of your organization's existing partners as listed in this proposal? How many and what types of consortium partners do you have? How and why this consortium exactly meets the needs of your defined region? Who or what is missing from your proposal, and why? What is the node's strategy for expanding the partnership network over time?
- **Employer Commitments:** What formal commitments (e.g., hiring projections, registered apprenticeships or other work-based learning slots, direct financial support, in-kind support, etc.) have you secured? Reference attached commitment letters and/or MOUs.

- **Subsector Focus & Labor-Market Evidence:** What are the subsector focuses of your region's current workforce efforts across the microelectronics value chain, if any (fabs, OSAT, packaging, design, materials, equipment, etc.)? Please provide a narrative, aligned to those subsector(s), that documents current demand and projected workforce needs (e.g., job openings per year, growth rates), citing your sources.

- **Gap Analysis:** Why can't existing regional efforts meet current and future demand in your region? What will this Node allow your region to achieve that is not currently possible without NNME support? How will your Node leverage existing and underutilized resources?

- **List** counts for employers, higher-education/training providers, workforce or economic-development agencies, K-12 and other partners within the proposed Regional Node area. Use the table provided in Submittable, example provided below.

Type of Partner	**Partner Count**	**Example Organizations**	**Geographic Reach**
Postsecondary Institutions	16	Prairie State University, Badlands Technical College, Big Sky Community College, Missouri Breaks College	Statewide (North Dakota), Multi-county
Microelectronics Sector Employers	12	Dakota Microsystems, Big Sky Semiconductors, Prairie Circuits	North Dakota, South Dakota, Montana
Workforce Development Organizations	8	NDWorks–Central Dakota, Black Hills Workforce Collaborative	Central North Dakota, Western South Dakota
K–12 and STEM Education Partners	30	Bismarck Prairie Schools, Great Plains STEM Network	Bismarck–Mandan Metro, Statewide (South Dakota)
Economic Development	5	Montana Growth Authority, Dakota Plains Development Corporation	Montana, North Dakota
Community-Based & Technical Partners	5	Prairie Pathways Initiative, Big Sky Uplift Coalition	Red River Metro (ND), Statewide (Montana)
Industry Associations & Credentialing	5	Northern Plains Electronics Council, High Plains Skills Consortium	National, Multi-state
Wraparound Service Providers	4	Frontier Adult Learning Cooperative, Prairie Community Support Services	Western North Dakota

- **Provide** a map of their respective regions showing the existing capabilities, resources, and locations of their proposed partners as well as the industry workforce needs and locations.

PART C. ORGANIZATIONAL CAPACITY & COLLABORATIVE EXPERIENCE (1,750 WORDS, TEXT ENTRY)

You may present this section in narrative or outline format to highlight capacity or past projects.

Demonstrate your readiness to convene and manage a multi-stakeholder Node by providing:

Staff & Infrastructure Capacity

Describe your organization's existing teams, structures, and systems that enable you to manage subawards, compliance, data tracking, and partnerships. For example:

- This section must convey the track record of your organization and of your leadership team, including the designated Hub Program Manager and any senior/key personnel, in leading education and workforce development activities and in working closely with industry.
- Other relevant internal functions or units (e.g., program management office, data analytics team, curriculum development).
- Physical and digital assets (labs, equipment, relevant software licenses, data platforms).
- Standard operating procedures or tools you use for project and partnership coordination.

Relevant Experience & Example Project

Summarize one or more past or present multi-year grant, contract or regional initiative your organization led, or co-led that demonstrates your organization's ability to effectively build network connectivity across a geographic region and multiple high-performing partners please include:

- **Project name & timeframe.**
- **Key partners & sectors engaged.**
- **Governance/collaboration model** (e.g., steering committee, MOU framework).
- **Major outcomes** (programs launched, learners served, policy changes).

If you did not lead the project solo, briefly describe your role as co-lead or partner. Then, expand on one of the following aspects of that project (choose one):

- **Stakeholder Engagement:** How you identified, recruited, and sustained participation from an array of partners.
- **Governance & Formalization:** How you established decision-making structures and formal agreements.
- **Data & Performance Management:** How you tracked progress, analyzed results, and iterated on activities.
- **Partnership Alignment:** How you reconciled differing interests and built consensus on goals.
- **Measured Impact:** How you quantified success and used metrics to demonstrate results.

Part D. Approach & Implementation Plan (Table AND Text Entry)

Please outline your approach to design and implement your Regional Node in Year 1 by detailing:

1. Key Focus Areas

Using the table provided in Submittable and the columns below, identify Year 1 priorities that align with NNME strategic goals and address your region's greatest gaps or opportunities.

Focus Area: Name of the priority (e.g., Curriculum Co-development).

Why It Matters: A brief statement of the regional need or opportunity for this focus.

Activities / Phases: High-level tasks or project phases you will undertake under this focus.

Expected Outputs & Outcomes: Tangible deliverables or results, explicitly tied to the NNME's performance KPIs and evaluation domains.

2. Stakeholder Roles

Using the table provided in Submittable and the columns below, outline ownership and support for each major workstream in a table using these columns:

Workstream: Name of the workstream or activity area.

Lead Organization/Team: Which internal group will take responsibility.

Supporting Partners: External consortium members who will assist.

Primary Contact: Name and email of the person accountable.

3. Additional Information (750 Words)

Provide any additional information regarding Key Focus Areas or Stakeholder Roles not captured in the Tables above.

4. Risk & Adaptation (1000 Words)

Briefly identify **1–2** potential Year 1 risks or impediments and describe your contingency plan(s) for mitigating and overcoming them. For example:

Risk: Delayed lab readiness → **Adaptation:** Use partner simulation platforms while awaiting lab access.

Risk: Lower-than-expected employer engagement → **Adaptation:** Launch targeted incentives and one-on-one outreach.

Part E. Activities, Timeline & Deliverables (File Upload)

Map Year 1 deliverables to a schedule and ownership using the table provided ("Activities/Timeline/KPIs") with the columns below, and upload to Submittable.

Quarter/Month: When the activity occurs (e.g., Q2 or Apr–Jun).

Activity: The specific action, deliverable or milestone.

Lead: Person or team responsible.

Output/Deliverable: What you will produce or achieve.

5.4 Budget Requirements/Guidance for Section III

- Complete the high-level budget table (Year 1 Budget Overview) in Submittable.
- Download and complete the Direct Detail Cost Template, and upload to Submittable. Be sure to align budgeted costs with the high-level table and Proposed Payment Schedule.
- Download and complete the Budget Narrative Template, and upload to Submittable. Be sure to include a copy for each for each subawardee included in your proposal.
- Download and complete the Proposed Milestone Payment Schedule, and upload to Submittable. Complete template with milestones and payments aligned with Y1 budget and to your deliverables stated in Activities/Timeline/KPIs table.
- Complete the text form with your long-term financial model addressing sustainability.

5.5 Formatting & Accessibility Requirements

- Bookmark each main section in the PDF for easy navigation.
- Provide alt-text for all figures and images where possible.
- Use descriptive headings; avoid scanned images of text. PDF must be screen-reader friendly.

5.6 Questions & Clarifications

- Submit written questions by the deadline in § 1.2; FAQs posted on the NNME website.
- RFP Announcement webinar optional; recording posted within 48 hours.

5.7 Withdrawal or Resubmission

Proposals may be withdrawn or resubmitted any time before the deadline. The portal will review the most recent version received up until the submission deadline.

6. Evaluation Criteria & Scoring Rubric

A merit review panel will score proposals against six weighted criteria as noted in the table below. Each criterion is rated on a 0–5 scale, then multiplied by the weight shown to yield a composite score of up to 100 points.

6.1 Scoring Scale

5 – Excellent: Exceeds all requirements with compelling, validated evidence and minimal weaknesses.

3 – Adequate: Meets requirements with some notable gaps or untested assumptions.

1 – Poor: Partially meets requirements with significant deficiencies in evidence or feasibility.

(4 and 2 may be used for intermediate ratings; 0 if a complete response is lacking.)

6.2 Assigned Category Weights

#	Category	Weight (points)
1	Regional Relevance & Industry Demand	20
2	Convening Power & Network Reach	15
3	Organizational & Operational Capacity	15
4	Workforce Education Alignment & Training Infrastructure	30
5	Data Infrastructure & Continuous Improvement	10
6	Sustainability & Employer Investment	10

6.3 Category Descriptions

1. Regional Relevance & Industry Demand (20 pts)

Reviewers will consider the strength of the proposer's regional labor market analysis, documented employer commitments, breadth of industry engagement, and the quality and completeness of landscape/SWOT/gap analyses. Clear justifications for the proposed geographic scope and evidence of leveraging other federal/state investments will also be considered.

2. Convening Power & Network Reach (15 pts)

Reviewers will assess the breadth and quality of the proposer's network (employers, education/training providers, workforce/economic development, K–12, etc.) and the structures in place for governance, matchmaking, and expansion. Plans for outreach to all Americans in the region will be considered.

3. Organizational & Operational Capacity (15 pts)

Reviewers will consider the capacity and experience of staff, governance and compliance systems, infrastructure readiness (digital and physical), teaching/training capabilities, and detailed Year 1 milestones. Plans to adopt NNME Hub tools will be weighted

4. Workforce Education Alignment & Training Infrastructure (30 pts)

Reviewers will evaluate the degree of employer co-design and validation, breadth and relevance of training models, mechanisms for region-wide impact, facility/simulation access, and a clear scaling roadmap informed by demand signals.

5. Data Infrastructure & Continuous Improvement (10 pts)

Reviewers will consider the proposer's ability to collect, share, disaggregate, and analyze data across partners; the existence of data-sharing agreements; use of KPIs and dashboards; and plans for continuous improvement based on evidence.

6. Sustainability & Employer Investment (10 pts)

Reviewers will assess the level and range of employer and partner co-investment, the robustness of the sustainability plan in Year 1 and beyond, readiness for ongoing invoicing and reporting, and commitment to sharing curriculum and training materials as Open Educational Resources (OER) that are openly-licensed.

6.4 Privacy and Confidentiality Protections

The NNME Hub operator is responsible for the collection, review and evaluation of proposals received from proposing Regional Node performers. The NNME Hub operator will maintain the privacy of the proposers and confidentiality of the received proposals as well as any other documents or information developed and/or collected during the evaluation processes. Panel reviewers will be required to execute a non-disclosure agreement prior to engaging in the merit review process. Additionally, the proposers should be aware that the NSF will have access to all documentation and information related to the proposers, their proposals and other documents and information developed and/or collected during the evaluation process.

7. Oral Presentation

7.1 Oral Presentation Instructions

Oral Presentation: The NNME Hub Operator may invite virtual oral presentations via a MS Teams video conference. Any virtual oral presentations are currently estimated to occur in February. By participating in oral presentations, proposing organizations acknowledge that they are in compliance with all solicitation rules and parameters, in accordance with applicable laws and statutes.

Presentation Participants: No more than six total individuals from proposing organizations shall attend the oral presentation. The NNME Hub Operator requests that participants be personnel that the proposing organization deems as key personnel and/or responsible organization official(s). Participants must be employees of the proposing organization or major subawardee(s) or consortium members.

Oral Presentation Format: NNME Hub Operator will provide the oral presentation format to the proposing organizations invited to participate at least 10 business days in advance.

NNME Hub Operator may also distribute a set of questions to the invited proposing organizations. Responses to these questions will be due prior to participation in oral presentations and will be rated using the same elements and rating guidelines as described in this section.

The NNME Hub Operator intends to engage in interactive dialogue during the oral presentations. These exchanges are viewed as a component of the oral presentation itself and used to clarify elements of the oral presentation.

Recording of Oral Presentations: Recording oral presentations by proposing organizations is strictly prohibited, notwithstanding local laws and regulations with regards to virtual meetings or voice-only telephone oral presentations. The NNME Hub Operator reserves the right to record oral presentations. If recorded, the recording will be considered source- selection sensitive and handled accordingly.

7.2 Oral Presentation Evaluation Guidelines

Oral Presentation Selection Criteria: All oral presentations will be evaluated in accordance with the criteria described below.

- The extent to which the proposing organization demonstrates a clear understanding of the challenges, provides an excellent and compelling vision for establishing and operating the Regional Node and making the NNME a success, and demonstrates a sufficiently skilled, knowledgeable and experienced team to meet the domestic semiconductor industry’s workforce needs.
- The extent to which the proposing organization’s proposed activities are both appropriate and impactful to fulfill the goals and objectives of the NNME program.

- The extent to which the proposing organization demonstrates that the assembled team [including organization(s), resources, capabilities and people] has the experience in providing an integrated and convincing strategy for executing their vision, methodology, and overall approach to fulfill the goals and objectives of this program.
- The extent the proposing organization provides a coherent methodology and nimble approach for expanding the reach and network of performers within the Regional Node to creatively and effectively implement solutions to address the challenges discussed in this document.
- The extent to which the proposing organization provides a clear strategy on how they will work with the other Regional Nodes and NNME Hub to leverage their collective resources.
- The extent to which the proposing organization provides complete and accurate responses to questions posed by the review panel.

8. Award/Agreement Conditions

8.1 Sub-award Node Agreement

Each selected Regional Node will enter into a sub-contract agreement with the SEMI Foundation that incorporates:

Regional Node Annual Project Plan. A Project Plan for Year 1, incorporating Regional Node Activities, Deliverables, KPIs and budget/milestone payment schedule, will be finalized post-award and incorporated into the final agreement. Future Regional Node Annual Project Plans will be developed in coordination with the NNME Coordinating Hub.

Approved Budget & Milestone Payment Schedule. Incorporated into the above Annual Project Plan, an approved Budget, Budget Narrative, and Payment Schedule (including sub-awardee budgets and budget narratives) as well as payment draw schedule, will be finalized post-award and incorporated into the final agreement.

8.2 Payment Terms

Payments will be tied to the completion of milestones identified in the Annual Project Plan. Regional Nodes are to invoice the NNME Coordinating Hub no more than once per month as milestones are completed and accepted. SEMI's and/or the Government's liability to make payments is limited only to those funds obligated by the Government under the Government's Prime Award to SEMI. Any costs incurred by Awardees prior to the execution of the award are the sole responsibility of the Sub-Awardee and will not be used as the basis of a claim against or construed as an obligation to SEMI or the Government.

8.3 Financial & Performance Reporting

Awardee shall provide a written quarterly report no later than thirty (30) days following the end of each reporting period containing two elements:

Technical Status Report. The technical status report should summarize development, deliverables, achievements, challenges, and solutions to keep the project on track.

Business Status Report. The business status report will provide summarized details of the agreement funding to date.

Annual Report. The annual report should provide a comprehensive summary of progress against the approved Annual Project Plan, including technical achievements, deliverables completed, and outcomes against standardized KPIs. The report must also document challenges encountered, strategies for continuous improvement, contributions to NNME-wide infrastructure and activities, and opportunities for the subsequent year

8.4 Monitoring & Site Visits

Applicants should expect participation in the following monitoring activities:

Virtual Check-ins: The NNME Coordinating Hub will hold bi-weekly calls with Regional Nodes.

Desk Reviews: Annual review of financial documentation and internal controls.

Site Visits: At least one program or financial monitoring visit during the award period.

Assessment Reviews & Data Collection: Awardees are expected to participate in internal and external assessments including working collaboratively to share data among stakeholders.

8.5 Audit and Record Retention

Financial records, supporting documents (including documentation of personnel expenses), statistical records and other records pertinent to the award must be retained for six (6) years, three (3) months after the end of the period of performance. Records are subject to examination or audit by the Government during this retention period.

8.6 Accounting Systems Requirements

Awardees shall maintain adequate records to account for the control and expenditure of Government funds received under the award.

9. Legal, Compliance & Intellectual Property Provisions

Organizations which are selected for an award, including all partners and/or subcontractors, must agree to terms and conditions set forth in the Regional Node Agreement before receiving any portion of the award. A summary of the key terms and conditions include, but are not limited to, the following: complete text of terms and conditions will be available for review during the contracting phase.

Branding and Communications: Branding activities and communications for and about the NNME and Nodes will be subject to NSF's oversight and direction.

Disclosure of Information: Awardees will be required to receive NSF approval before the release of information related to the performance of this award unless;

The information is otherwise in the public domain before the date of release; or

The information results from or arises during the performance of an activity that involves no controlled unclassified information and has been scoped and negotiated by the Parties and research performer and determined in writing by the Agreements Officer to be fundamental research.

The Hub shall provide to NSF all information, data, and reports necessary for the management, evaluation, and oversight of the NNME. Information identified as proprietary or containing Controlled Unclassified Information shall be marked accordingly. NSF will safeguard such information in accordance with applicable federal law and shall not disclose it outside the Federal Government except as required by law or as necessary for interagency coordination related to the NNME.

Additional FAR Provision Compliance: Awardees' compliance obligations include, but are not limited to, the following Federal Acquisition Regulation ("FAR") clauses:

- FAR 52.204-23 – Prohibition on Contracting for Hardware, Software, and Services Developed or Provided by Kaspersky Lab Covered Entities (Dec 2023);
- FAR 52.204-25 – Prohibition on Contracting for Certain Telecommunications and Video Surveillance Services or Equipment; and
- FAR 52.204-27 – Prohibition on a ByteDance Covered Application.

NSF Buy American Requirements: In accordance with 41 U.S.C. 1870a, to the maximum extent practicable and consistent with current law, awardees must procure goods and services from domestic firms.

Foreign Entities of Concern and Malign Foreign Talent Programs:

- In compliance with the CHIPS and Science Act of 2022, Section 10636 (person or entity of concern prohibition) (42 U.S.C. 19235), the following are not eligible to receive or participate in the National Network for Microelectronics Education (NNME) and any Regional Nodes sub-contract:
    - Organizations on the Department of Commerce's Bureau of Industry and Security (BIS) Entity List;
    - Any entity identified under Section 1260H of the William M. (Mac) Thornberry National Defense Authorization Act (NDAA) for FY 2021 (10 U.S.C. 113 note; Public Law 116-283). The most recent list of entities may be found here;
    - Any person published on the list under section 1237(b) of the Strom Thurmond National Defense Authorization Act for Fiscal Year 1999 (Public Law 105-261; 50 U.S.C. 1701 note). Note, as this list is no longer maintained, monitoring of this list pursuant to this prohibition is currently suspended. The final notice can be found here; and
    - Any "foreign entities of concern" as defined in section 10638(3) of the CHIPS and Science Act of 2022, which includes, among others, entities owned by, controlled by, or subject to the jurisdiction or direction of the government of the Democratic People's Republic of North Korea, the People's Republic of China, the Russian Federation, or the Islamic Republic of Iran.
- In compliance with the CHIPS and Science Act of 2022, Section 10632 (malign foreign talent program prohibition) (42 U.S.C. § 19232), the following are not eligible to serve as senior/key personnel in the National Network for Microelectronics Education (NNME) National Coordination Hub and Regional Nodes: Individuals who are a party to a Malign Foreign Talent Recruitment Program.
        - See the definition of a Malign Foreign Talent Recruitment Program here.
        - Senior/key personnel include individuals who contribute in a substantive, meaningful way to the scientific development or execution of the NNME program as carried out under this contract.
        - Compliance with this prohibition requires annual certification for the duration of the contract.

Organizational Conflicts of Interest: Awardees must disclose any actual or potential organizational conflicts of interest. If an Awardee identifies an actual or potential organizational conflict of interest that has not already been adequately disclosed and resolved, the Awardee shall make prompt and full disclosure in writing to SEMI. This disclosure shall include a description of the action the Awardee has taken or proposes to take in order to resolve the conflict.

- An organizational conflict of interest mitigation plan must be developed within 30 days of the issuance of an award under this RFP and must contain the following items at a minimum:

- Safeguards the awardee has in place to segregate funds to ensure they can be traced to activities under the award;
- Safeguards the awardee has in place to resolve the appearance of a potential conflict of interest between the domestic focus of this work and international work; and
- Any actual conflicts of interest identified by the awardee and the strategies to mitigate or minimize the conflicts.

Civil Rights Act & Non-Discrimination Statutes: Awardees must certify that:

- Compliance in all respects with applicable Federal anti-discrimination laws is material to SEMI and the government's payment decisions for purposes of section 3729(b)(4) of title 31, United States Code; and
- The awardee does not operate any programs promoting DEI that violate any applicable Federal anti-discrimination laws.

Accessibility, Section 508 of the Rehabilitation Act Awardees shall be responsible for ensuring that all electronic content including web and non-web documents developed under this Agreement shall conform to relevant accessibility requirements and be fully accessible by employees and members of the public with disabilities.

The Section 508 technical standards, functional performance criteria and information, documentation and support requirements have been determined to apply to this acquisition and expressly for electronic documentation including web and non-web content.

Appendix A: KPI Data Dictionary & Reporting Schedule

Regional Node leads will be responsible for working with their regional partners to ensure that multi-level performance data is collected and reported to the Hub team on a regular basis. For additional context, KPIs for the NNME Operator Hub have also been included in the table below but are not the responsibility of the individual nodes. Preliminary key performance indicators (KPIs) with reporting frequency are noted in the table below, these are subject to change as the work continues to evolve. In addition to KPIs, Node performance will also be assessed on additional domains including strategic alignment and common agenda, participation in the shared measurement system, implementation of mutually reinforcing activities, ability to scale practice change, extent of opportunity provision to all groups, communication and stakeholder engagement, and adaptive leadership and innovation. Additionally, Nodes are expected to collect and submit outcome data on learner readiness, placement, post-placement retention, and satisfaction. Finally, Nodes will be expected to facilitate implementation and impact evaluation activities with the initiative's external evaluator.

NNME KPI Table

Pillar	Initiative	Success Metric	Unit of Analysis	Data Source	Reporting Frequency
Network Engagement	Regional Network Development and Expansion	# of states with NNME-affiliated programs	Hub	Hub administrative records	Ongoing
		# of Active Regional Nodes	Hub	Hub administrative records	Ongoing
		# of engagements with NNCI sites, ME Commons Hubs, NSF Engines, and other federal initiatives	Hub Node	Hub and Node communication / engagement logs	Quarterly
		% of performers submitting complete and timely KPI reports	Node	Hub review of Node Reports	Quarterly
		% of nodes with active employer advisory boards meeting quarterly	Node	Node administrative records; Hub confirmation of	Quarterly

				advisory agendas/ attendance logs	
	Communities of Practice + Collaboration Platform	# of organizations incorporating NNME-facilitated practices	Node	Node survey of partner orgs	Quarterly
		# of state and federal partnerships and collaboration mechanisms	Node	Node administrative records Node survey of partner orgs	Quarterly
	Evaluation & Performance	% of NNME-affiliated programs meeting performance benchmarks	Hub	Node progress reports	Quarterly
		% stakeholders reporting satisfaction with NNME programs and responsiveness to feedback	Hub Partners Node Partners Activity Participants	Node survey of partner orgs Hub survey of node leads Embedded survey item in all resources and activities (CoP, platform, etc.)	Quarterly
		% of nodes demonstrating data system compliance (accuracy/timeliness of reporting)	Node	Hub data system audits; platform analytics	Quarterly
	Employer Hiring Barriers	Employer-reported obstacles to hiring NNME trainees	Employer (Node Partner)	Employer survey & interviews coordinated by Nodes; Hub	Semi-Annual

				aggregated reporting	
	Post Placement Outcomes	Retention rates at 6, 12, 24 months	Activity Participant	Node follow-up surveys; employer HR confirmations; external evaluator assessment	Annual (with lagged reporting windows)
		Employer satisfaction with NNME hires	Employer (Node Partner)	Employer surveys & structured interviews	Semi-Annual
		Turnover rates (voluntary vs. involuntary)	Activity Participant/ Employer	Employer HR data; Node follow-up surveys	Annual
		Career progression: % of participants experiencing advancement or wage growth within 2 years	Activity Participant	Alumni surveys; employer HR confirmations; wage record matching if available	Annual
Curriculum & Pathways	Digital Education and Curriculum Modernization	# of users accessing online repository	Activity Participants	Platform metrics (or via Google Analytics)	Ongoing
		# of organizations incorporating NNME-facilitated education or training content	Node Partners	Node survey of partner orgs / Node administrative records	Quarterly
		Average time from employer skill-signal → updated curriculum/module	Curriculum module (Node/Hub)	Node curriculum revision logs; Hub validation reports	Semi-Annual
		# of new or updated curricula validated annually by employers	Curriculum product (Node)	Node administrative records; employer validation meeting minutes	Annual
	Industry-Recognized	# of individuals earning industry-	Activity Participants	Node survey of partner orgs	Quarterly

	Credentials and Pathways	recognized credentials		Partner org administrative records	
		# of industry-recognized credentials developed and launched	Node	Node administrative records Node survey of partner orgs	Quarterly
		% of learners categorized as “ready now / ready soon / needs further development	Activity Participant	Node-administered readiness assessments, employer-informed rubrics	Quarterly
		Median time-to-first job offer for NNME-trained participants	Activity Participant	Participant follow-up survey; employer confirmations	Annual
		% of placements aligned with NNME training KSAs	Placement (Activity Participant matched with Job)	Employer surveys/interviews; NGG outcome analysis	Annual
Increasing Participation	Industry Image and Awareness	# of persons expressing interest in semiconductor careers	Activity Participant General public	Node Partner org survey of participants Hub web form	Quarterly
		# of media placements about the semiconductor industry and NNME initiatives	Hub	Hub review of media analytics via service like Cision	Quarterly
	K-12 Outreach and Engagement	# of youth participating in	Activity Participant	Node partner administrative records	Quarterly

		NNME-facilitated practices			
		# of K-12 outreach activities conducted where learners create profiles in the Career Exploration portal	Node Partners	Node partner org administrative records	Quarterly
	Reducing Barriers and Increasing Participation for All Americans	% increase of participants from all Americans	Activity Participants	Node partner org administrative records	Quarterly
		Trainee satisfaction with career pathway clarity and job quality	Activity Participants	Post-placement surveys administered by nodes and aggregated nationally	Semi-Annual