

**2026 Focused Solicitation
Request for Proposals (RFP)
Issued: 5/19/2026
Full Proposals Due Date: 7/6/2026**

1. Mission/Objectives and Topics

SEMI FlexTech is a public-private partnership that brings together government, industry, and academia to accelerate innovation in Flexible Hybrid Electronics (FHE). Funded by the U.S. Army Research Laboratory (ARL), the program supports targeted research and development activities that advance technologies from Technology Readiness Level (TRL) 3 to 6, with the goal of enabling reliable, scalable, AI-enabled, and domestically sourced hybrid electronic systems.

Since 2008, FlexTech has supported more than 90 projects focused on strengthening the technical foundation of the FHE ecosystem, including flexible energy storage, energy harvesting, power management, and system-level integration. These efforts have evolved to integrate semiconductor devices with printed interconnects and functional materials on flexible, conformal, and non-planar surfaces. Key advancements include the use of high-precision fabrication methods such as aerosol jet, inkjet, and electrohydrodynamic (EHD) printing, as well as the development of conductive materials, adhesives, and dielectric layers designed for harsh operating environments. To further improve manufacturability, process control, and yield, FlexTech has also supported AI-enabled and machine learning-driven approaches for thin-film manufacturing and advanced printing technologies.

Building on this technical momentum, the current RFP focuses on advancing next-generation hybrid electronic technologies for defense and commercial applications. Areas of interest include moldable and reconfigurable 2D electronics, high-reliability interconnect and attachment materials for harsh environments, advanced flexible energy storage technologies, and scalable 2D material platforms, including transition metal dichalcogenides (TMDs), for high-performance electronic devices. These efforts aim to strengthen domestic manufacturing capabilities and enable next-generation adaptive electronic systems.

The 2026 RFP topics include:

- A. Flexible, Moldable Electronics
- B. Advanced Bonding Reliability
- C. Novel Flexible Energy Storage Beyond Conventional Architectures
- D. 2D Materials

2. Proposal Process

The proposal process requires the submission of a Full Proposal. Members of the RFP Review Committee will review the full proposals and recommend those for further consideration to the Governing Council. The primary point of contact, for the submissions selected by the Governing Council, will be invited to advance to the next stage.

To date, SEMI has enabled funded R&D projects to be conducted by industry and academic teams with technical guidance and oversight from subject matter experts within the government.

SEMI will support technical approaches that are novel, or game-changing thus having a more significant element of risk, as well as approaches that represent evolutionary improvements upon existing capability, which tend to be less risky and involve shorter development and delivery intervals. It is recognized that it may be desirable to include information that is considered confidential and proprietary by the submitter to

fully and effectively convey the technical merits of the proposal. While a best effort will be made to restrict the proposal information to those with a need to know expressly for purposes of the review, it is recommended that the inclusion of proprietary information be limited to the minimum necessary to convey the highlights of the technical approach.

With respect to intellectual property developed under a SEMI contract, the following policy has been established to encourage suppliers to cooperate with SEMI and our government partners in the accomplishment of their objectives:

“Legal title to any technology developed under a funded research and development contract will be the property of the development partner.”

Development agreements generally will be awarded on an actual cost basis, not-to exceed contracts, with payments to be made quarterly and based on actual project costs. If your institution has a U.S. government approved rate structure, use it. If not, the normal commercial cost accounting system used for internal R&D projects will be acceptable. The methods used to value “cost sharing” cost must be the same as those used to value the full project costs. All suppliers are expected to have a government approved or industry standard accounting system by which actual project costs are tracked and reported. This is an absolute requirement to be sure that cost share obligations are met.

A work breakdown structure should be the basis of project schedules, milestone definitions, and cost estimates. An excel spreadsheet (template provided by SEMI) showing the cost estimate calculations must accompany each proposal. The same spreadsheet should also show the specifics of how you will contribute your matching share of the total costs of the development contract. Cost sharing expectations have been established in the master agreement between SEMI and ARL, and a minimum 50/50 cost sharing ratio between government and industry is targeted. The template will be provided by emailing flextechrfp@semi.org.

3. Research and Development Award Budget

Anticipation for this 2026 RFP solicitation is a cash budget range of \$250,000 - \$500,000 with an additional matching (or greater) cost share from the award recipient(s). Submissions may be from single institutions, or a project team comprised of various companies and/or universities. Submissions from multi-institutional teams are preferred. Programs proposed should run for 12 months. The hard stop for the project completion will be communicated at a later date.

4. TRL and MRL Entry and Exit Levels

The maturity of the proposed research effort should be assessed by a TRL or MRL definition. We seek innovations in TRL 3 through TRL 6 showing clear technology maturation over the duration of the project. TRL and MRL levels are determined through the project team self-assessment as well as ARL, or other designated end user assessments. Proposers should consider the definitions of TRL and MRL and reference specific elements within the TRL category that will enable the maturation of the technology. Primary focus by the RFP review team will be on the justification and maturation of TRL, however, reference to MRL awareness should be included.

The definition of the TRL and MRL levels are described below:

TECHNOLOGY READINESS LEVEL DEFINITIONS

TRL 3. Analytical and experimental critical function and/or characteristic proof of concept

- Active research and development are initiated
- This includes analytical studies and laboratory studies to physically validate the analytical predictions of separate elements of the technology
- Examples include components that are not yet integrated or representative

TRL 4. Component and/or breadboard validation in laboratory environment

- Basic technological components are integrated to establish that they will work together
- Relatively “low fidelity” compared with the eventual system

- Examples include integration of “ad hoc” hardware in the laboratory

TRL 5. Component and/or breadboard validation in relevant environment

- Fidelity of breadboard technology increases significantly
- Basic technological components are integrated with reasonably realistic supporting elements so they can be tested in a simulated environment
- Examples include “high-fidelity” laboratory integration of components

TRL 6. System/subsystem model or prototype demonstration in a relevant environment

- Representative model or prototype system, well beyond TRL 5, tested in a relevant environment
- Represents a major step up in a technology’s demonstrated readiness
- Examples include testing a prototype in a high-fidelity laboratory environment or in simulated operational environment

MANUFACTURING READINESS LEVEL DEFINITIONS

MRL 4. Capability to produce the technology in a laboratory environment

- Required investments, such as manufacturing technology development identified
- Processes to ensure manufacturability, producibility and quality are in place to produce demos.
- Manufacturing risks identified for prototype build
- Manufacturing cost drivers identified
- Producibility assessments of design concepts have been completed.
- Key Performance Parameters (KPP) identified
- Special needs identified for tooling, facilities, material handling and skills

MRL 5. Capability to produce prototype components in a production relevant environment

- Manufacturing strategy refined and integrated with Risk Management Plan
- Identification of enabling/critical technologies and components is complete
- Prototype materials, tooling and test equipment demonstrated on components in a production relevant environment
- Manufacturing technology development efforts initiated or ongoing
- Producibility assessments of key technologies and components ongoing
- Cost model based upon detailed end-to-end value stream map

MRL 6. Capability to produce a prototype system or subsystem in a production relevant environment

- Initial manufacturing approach developed
- Most manufacturing processes have been defined and characterized, but there are still significant engineering/design changes
- Preliminary design of critical components completed
- Producibility assessments of key technologies complete
- Prototype materials, tooling and test equipment, as well as personnel skills have been demonstrated on subsystems/ systems in a production relevant environment
- Detailed cost analysis includes design trades. Cost targets allocated.
- Producibility considerations shape system development plans

TRL and MRL CLARIFYING DEFINITIONS

BREADBOARD: Integrated components that provide a representation of a system/subsystem and which can be used to determine concept feasibility and to develop technical data. Typically configured for laboratory use to demonstrate the technical principles of immediate interest. May resemble final system/subsystem in function only.

HIGH FIDELITY: Addresses form, fit and function. High fidelity laboratory environment would involve testing with equipment that can simulate and validate all system specifications within a laboratory setting.

LOW FIDELITY: A representative of the component or system that has limited ability to provide anything but first order information about the end product. Low fidelity assessments are used to provide trend analysis.

MODEL: A reduced scale, functional form of a system, near or at operational specification. Models will be sufficiently hardened to allow demonstration of the technical and operational capabilities required of the final system.

OPERATIONAL ENVIRONMENT: Environment that addresses all of the operational requirements and specifications required of the final system to include platform/packaging.

PROTOTYPE: The first early representation of the system which offers the expected functionality and performance expected of the final implementation. Prototypes will be sufficiently hardened to allow demonstration of the technical and operational capabilities required of the final system.

RELEVANT ENVIRONMENT: Testing environment that simulates the key aspects of the operational environment.

SIMULATED OPERATIONAL ENVIRONMENT: Environment that can simulate all of the operational requirements and specifications required of the final system or a simulated environment that allows for testing of a virtual prototype to determine whether it meets the operational requirements and specifications of the final system.

PRODUCTION RELEVANT ENVIRONMENT: An environment normally found during MRL 5 and 6 that contains key elements of production realism not normally found in the laboratory environment (e.g. uses production personnel, materials or equipment or tooling, or process steps, or work instructions, stated cycle time, etc.). May occur in a laboratory or model shop if key elements or production realism are added.

Additional Information on the Technology and Manufacturing Readiness Assessment process can be found at:

- TRL Assessment: <https://www.cto.mil/wp-content/uploads/2025/03/TRA-Guide-Feb2025-Cleared.pdf>
- MRL Assessment: <http://dodmrl.com>

5. Focused Solicitation

There are four focused solicitation topics:

Topic A: Flexible, Moldable Electronics

Develop and demonstrate moldable 2D electronics that are fabricated in a flat form and, when ready to deploy, can be folded, shaped, or reconfigured into functional 3D configurations at the point of use. Leverage origami/ kirigami-inspired architectures, 4D printing, and/or direct in-molded manufacturing, to enable electronics with reduced part count, improved cost efficiency, and enhanced mechanical robustness. These technologies should aim to extend beyond the constraints of conventional rigid electronics, enabling form factors adaptable (flex to fit), durable to strain, and space-efficient systems for next generation adaptive electronic in defense and aerospace applications.

Topic A: Technology Requirements/ In Scope:

The technologies required to achieve the above solutions must be designed to address some or all the following features:

- Circuit and Interconnect Engineering for Formable Electronic
 - Develop reliable transitions between rigid and flexible regions
 - Enable circuit integrability for in-mold applications with additively printed circuits
 - Develop circuit architecture that resist distortion and performance degradation during transformation from planar (2D) geometries to three-dimensional (3D) formed structures
 - Develop resilient conductive traces with enhanced mechanical tolerance, including material strategies to bridge micro-cracks, accommodate repetitive creasing, and support self-healing or strain-relief functionality
- Material Development for Foldable and Moldable Systems
 - Develop inks and substrates capable of reliable folding and molding, with particular emphasis on low-cycle fatigue at origami-style crease locations, including embedded circuits and conductive traces
 - Develop functionalized inks focusing on optimized for extreme molding, repeated flexing, and folding without loss of electrical or mechanical performance
 - Develop multi-material integration strategies for flexible and moldable electronics, enabling the integration of conductors, insulators, and mechanically compliant semiconductor materials
 - Develop ultra-thin, paper-like substrates compatible with printing
- Reliability

- Demonstrate Reliable electrical and mechanical operation across wide temperature extremes, including stability under thermal cycling, post-processing, and thermoforming conditions
- Demonstrate long-term performance stability under repeated mechanical deformation, including folding, rolling, and creasing cycles
- Develop crease-tolerant conductive traces and interconnect architectures that accommodate sharp bending radii and origami-style folds while preventing strain localization and fracture
- Preserve circuit geometry, alignment, and electrical integrity during 2D-to-3D transformation, minimizing distortion and performance loss
- Mitigate failure mechanisms arising from material and structural mismatches, including delamination, warpage, coefficient of thermal expansion (CTE) mismatch, and interfacial stress in multi-layer systems
- Quantify the impact of time-dependent local environments and downstream processing conditions, including temperature, pressure, curing, residual stress, and mechanical loading, on material reliability
- Establish physics-of-failure models and mechanical property characterization to predict reliability and performance variability in folded, molded, and reconfigured circuit states
- Tools
 - Develop predictive modeling tools to quantify deviations between design and realized circuit function, including changes in electrical performance, interconnect behavior, and material properties induced by processing, forming, and environmental exposure
 - Implement digital twins bidirectionally link materials, processing, and in-line characterization data to continuous synchronization with the physical system, providing accurate, real-time representations of process parameters, material states, and device performance
 - Develop design rules, material and process trends to integrate into design tools and lifecycle management frameworks

Topic B: Advanced Bonding Reliability

Ensure reliable interfaces, interconnects, or surface mount materials maintain mechanical and electrical integrity under thermal and mechanical stress throughout their operational life. This effort should focus on inks, solders, and attachment technologies capable of surviving hundreds of high-stress cycles, including sustained operation above 150°C and thermal cycling up to 500°C, while preserving conductivity. By addressing/ mitigating dominant failure modes such as interface debonding, resistance drift, and cumulative damage in printed materials, the technologies aim to enable robust next-generation high-stress electronic systems.

Topic B: Technology Requirements/ In Scope:

The technologies required to achieve the above solutions must be designed to address some or all the following features:

- Engineer Material and Mitigate for Failure
 - Develop rapid material-screening and system-level reliability assessment methods to accelerate evaluation of new reliable materials
 - Enhance material property and attachment method to strengthen the reliability of material attached to printed circuits material
 - Develop printable, fabric-like flexible material to enable flexible conductor and interface/interconnect materials for conformal systems
 - Engineer interfaces to tailor interfacial/ material properties (e.g., elastic modulus, coefficient of thermal expansion (CTE), auxetic behavior) to reduce stress and improve joint life
 - Enable robust material stability:
 - Develop long-term stable bonding systems, including thermoset-based materials
 - Control intermetallic growth in fine-pitch solder alloys to improve joint reliability
 - Develop materials and processes that are:
 - tolerant to contaminants and surface preparation variability,

- resilient to out-of-spec processing conditions,
 - compatible with diverse processing environments,
 - and capable of self-healing where beneficial
- Mitigate solder-interface failures in low-temperature processes while meeting IPC Class 3 requirements
- Develop crack-mitigation strategies to prevent or slow microcrack initiation and propagation
- Develop low-CTE underfill materials and bonding methods to improve chip-to-board interface reliability
- Test & Tools Towards Standardization
 - Design for long-term reliability by aligning materials, interfaces, and bonding methods with expected operational lifetimes and mechanical stresses.
 - Develop adhesion tools/ methods towards establishing FHE-specific standards for adhesion testing, particularly post-accelerated-aging adhesion performance
 - Develop and standardized one to three highly reliable reference material systems (e.g., silver on polyimide) as interfaces and interconnect to serve as industry benchmark and enable comparative evaluation
 - Develop high-temperature (up to 500°C) test infrastructure and non-destructive characterization methods to study failure mechanisms under extreme conditions
 - Implement high-resolution imaging and AI/ML-driven modeling to enable real-time defect detection, lifecycle reliability assessment, and root-cause failure analysis

Topic C: Novel Flexible Energy Storage Beyond Conventional Architectures

Develop and demonstrate transformative flexible energy storage technologies that go beyond conventional rigid and commercially available battery architectures for conformal, defense, and aerospace applications. These systems should combine lightweight form factors, mechanical flexibility, durability, high performance, and extended operational lifetime while enabling capabilities not achievable with today's bulky or rigid energy-storage solutions. Leverage novel, locally sourced materials and unconventional energy-storage architectures to reduce dependence on foreign resources, establish a competitive technological advantage, and enable scalable next-generation manufacturing. Technologies are not limited to printable batteries. Focus on nontraditional energy-storage systems, alternative electrochemical materials, flexible micro-supercapacitors, and structural energy-storage materials.

Topic C: Technology Requirements/ In Scope:

The technologies required to achieve the above solutions must be designed to address some or all the following features:

- Flexible Energy Storage
 - Develop rechargeable, ultra-thin (<1 mm), mechanically flexible energy storage devices with current density (500 mAh) to sustain extended prolonged operation in thin, flexible wearable and conformal electronics
 - Develop and validate flexible energy storage systems that maintain target energy density and power density after exposure to thermal cycling, mechanical bending, vibration, and humidity stresses.
 - Develop high-performance battery technologies with low self-discharge and minimal leakage to enable FHE systems that reliably retain charge over long durations without performance degradation
 - Develop substrates that inherently act as flexible power sources and maintain electrochemical integrity after repeated mechanical deformations
 - Develop compact, lightweight, reliable energy storage systems (including wireless charging) with long storage duration, low heat dissipation, and consistent performance
 - Develop integrated energy harvesting, self-charging, and storage systems that reduce reliance on larger batteries by extracting power from the environment (e.g., vibration, temperature, etc . . .)
- System-Level Integration and Deployment Readiness

- Develop energy storage materials systems with validated performance and positioned to be transitioned into manufacturing (e.g. liquid-based, mechanical nano-storage devices, flexible micro-supercapacitors, including locally sourced material)
- Integrate commercial or near-commercial flexible energy storage technologies into new system architectures, demonstrating performance, durability (including repeated bending), and reliability under realistic operating conditions

Topic D: 2D Materials

Develop and industrialize robust, scalable 2D materials—such as transition metal dichalcogenides (TMDs)— that delivers performance beyond traditional semiconductor materials in advanced electronic devices and enables ultra-thin, high-speed transistors with low-resistance, stable contacts, precise layer control, defect-free growth, and/or long-term material stability and reproducibility. These technologies should aim to position 2D materials for mass production, sustainable supply chains, and broad commercial adoption.

Topic D: Technology Requirements/ In Scope:

The technologies required to achieve the above solutions must be designed to address some or all the following features:

- Fundamental Understanding, Processing, and Integration
 - Characterize and model the fundamental physics, chemistry, and mechanisms governing the behavior and performance of 2D materials
 - Establish processing–structure–properties–performance relationships and verify suitability of 2D materials for deformable and flexible substrates and associated applications
 - Develop scalable synthesis, exfoliation, deposition, printing, self-assembly, and transfer-integration processes to produce high-quality 2D materials with controlled thickness, crystallographic orientation, uniformity, and minimal defects for integration into functional flexible hybrid electronic (FHE) systems
 - Improve the accuracy and uniformity of spin cast, drop cast, and printed 2D material, surpassing the performance of traditional CVD methods of fabrication
 - Develop non-contact characterization and metrology techniques to assess material quality, uniformity, and interface integrity during fabrication and integration
- Manufacturing and Commercialization
 - Develop 2D materials into printable functional inks with controlled composition and performance with a scalable, high-throughput manufacturing process
 - Demonstrate low cost, ambient, room-temperature fabrication processes of 2D material that reduce manufacturing complexity, production cycle time, and energy consumption relative to conventional semiconductor fabrication methods
 - Develop 2D materials for reliable operation in extreme-environment applications, including elevated temperature, shock, and vibration and establish manufacturing scalability, supply-chain readiness, and commercialization pathways to enable high-volume production and deployment

6. Requirements for Receiving an Award

To submit a response to this RFP and subsequently be considered for an award, several requirements must be met as detailed below.

- To receive an award the company or composite team of companies must have a significant presence in the United States in the form of R&D activities and/or manufacturing. At least 50% of the work activity (funds) must be spent within the U.S. operations. The primary company leading the proposal must be a U.S.-owned company. Further, for the period of award performance plus the 3 years following, the primary company plus all IP resulting from said award must remain under control of a U.S.-owned or majority-controlled company. In certain cases, where it can be demonstrated that the development is both critical to U.S. manufacturing capability and unique,

this “preference for U.S. operations” requirement can be waived with ARL approval. Any responding company requiring such a waiver must make this known in the proposal document.

- The company or companies must be committed to volume manufacturing of the developed products and provision to the U.S. Flexible Hybrid Electronics Industry on a right-of-first acceptance basis. Applied research conducted by universities will be considered and does not need to meet this requirement. However, in this latter case a pathway to commercialization and/or licensing must be envisioned and described.
- The company or companies, including universities, must provide a matching share of the development cost in cash and in-kind contributions (e.g., labor and materials) - 50% MINIMUM.
- Companies and organizations which are selected for an award, including all partners and/or subcontractors, must subsequently join SEMI at the appropriate membership level. Membership information is available at <https://www.semi.org/en/connect/semi-membership-levels>
- Companies and organizations which are selected for an award, including all partners and/or subcontractors, must agree to terms and conditions set forth in the SEMI Development Agreement before receiving any portion of the award.
- Each project team may submit no more than THREE proposals total, whether as a primary project team or as a subrecipient.
- Project Team MUST attend ONE consortium conference or Event AND participate in at least ONE consortium Gap Analysis activity PER YEAR.

7. Full Proposal Instructions

This RFP will follow a single-stage process, requiring submission of a full proposal only. The full proposal must include the following information:

Ensure that the major topic areas are covered. Full proposal submissions are limited to 15 pages maximum. The Proposal Support section does not count towards this page limit.

Please format your proposal using 1-inch margins and Arial font, size 10–12 pt. Submit your proposal in both Microsoft Word and Adobe Acrobat PDF formats, except for the Financial Section, which must be submitted in .xlsx format.

Content: The proposal shall comply with the following content and structure.

Page 1: Cover Page (REQUIRED)

Date
 Project Title (Concise)
 RFP Topic you are responding to
 Company Name
 Address where work will be performed
 EIN (Employer Identification Number)
 UEI (Unique Entity Identifier)
 CAGE (Commercial and Government Entity) code
 Primary Administrative Contact (telephone and email)
 Project Technical Leader Contact Information (telephone and email)
 Project Team (Prime & Subs)
 Project Duration (Format: # Month, mm/dd/yyyy - mm/dd/yyyy)

 Total Project Cost (Federal Funds + Cost share) (Format: \$xxx,xxx.xxx)
 Cost Share (Format: \$xxx,xxx.xxx)

Federal Funds Requested (Format: \$xxx,xxx.xxx)

Page 2: Table of Contents (REQUIRED)

Page 3: Executive Summary, containing a description of the project objective and industry or supply chain impact (REQUIRED)

Pages 4-15: Proposal Content (REQUIRED)

1. Introduction
 - 1.1. Problem definition
 - 1.2. Innovative claims with supporting data and diagrams
 - 1.3. Prior work and current status and uniqueness compared to the State of the Art and existing products on the market.
2. Statement of Work
 - 2.1. Project scope
 - 2.2. Clear objective(s)
 - 2.3. Tasks clearly delineated to address all objectives
 - 2.3.1. Detailed task description (including technical approach and rational)
 - 2.3.2. Milestones, deliverables including demonstration prototypes, reports, process definition, test results, reviews etc. This is a written description. Your Gantt chart should be in 2.5.
 - 2.4. Project management approach
 - 2.4.1. Roles and relationships of personnel and institutions
 - 2.4.1.1. Technical representative & alternate
 - 2.4.1.2. Contract representative
 - 2.4.1.3. Development Partner's Project Manager
 - 2.4.2. Lead institution and subcontract partners
 - 2.4.3. Primary Address where work will be done
 - 2.5. Project schedule of tasks indicated (This should be in the format of a Gantt chart and a table.)
 - 2.5.1. Project Period of Performance (Format: n Month, mm/dd/yyyy - mm/dd/yyyy)
 - 2.5.2. Milestones
 - 2.5.3. Deliverables to SEMI (One of the deliverables should include a short video to get people excited about what you are doing)
 - 2.6. Performance target metrics and/or specifications
 - 2.6.1. Define the initial or current (starting/benchmark) and targeted (by the end of the project) performance metrics for the innovation (device, process, software, or model/simulation) and present them in a written summary and table.

Parameter	Starting Metric	Target Metrics
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 - 2.7. TRL and MRL Current standings and planned advancements by the end of the project.
 - 2.8. SEMI furnished resources (If not needed, keep section and indicate none requested.)
 - 2.9. Project Risk Assessment
 - 2.9.1. Table: Analysis of Risk and Mitigation Strategy (list risk assessment tools/processes used if any)

Risk	Consequence	Mitigation Strategy	Impact (L, M, H)	Probability of Risk (L, M, H)
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 - 2.10. Workforce Development: Will students or interns be involved in your project? How involved will they be? Please mention that team members will be encouraged to present their work during project review meetings, including students or interns.
 - 2.11. Commercialization path / strategy

Business Section (REQUIRED)

1. Market Analysis and Competitive Landscape

- 1.1. Competitive benchmark – what solutions are available today and how does your innovation differentiate?
- 1.2. Market drivers
 - 1.2.1. Existing product portfolio and/or future product concepts
 - 1.2.2. Primary markets served and market drivers (i.e. wireless, mobile, performance specs, etc.)
2. Company Background and Capability to Meet Technical and Business Targets
 - 2.1. Team & key personnel
 - 2.1.1. Management and technical personnel experience and qualifications
 - 2.1.2. Roles and responsibilities of key personnel
 - 2.1.3. Staff size and make-up by function relevant to this project and in addition to key personnel
 - 2.1.4. Clearly indicated lead institution, subrecipient and subcontractor partners
 - 2.1.5. Contact information for technical lead and contract representative
 - 2.2. Facilities and equipment
 - 2.3. Relevant company information
 - 2.3.1. Three-year revenue and/or investment round (omit for University)
 - 2.3.2. IP strategy or business strategy for innovations resultant of this effort such as licensing strategy, new product introduction, M&A, etc.
 - 2.3.3. Present patents held related to the proposal topic
 - 2.3.4. Is the Company Foreign or Domestically owned
 - 2.3.5. How long has it been in business?
 - 2.3.6. Prior experience with similar subawards?
 - 2.3.7. Purchasing policy?
 - 2.3.8. Evidence of effective financial controls within the subrecipient's system

Pages 16-X: Proposal Support (This is not included in the page count.)

Financial Section (REQUIRED)

1. Detailed Project Cost and Cost Share by Task or by Quarter. An Excel Template will be provided by SEMI.
 - 1.1. Labor, materials, overhead, travel and capital

Appendix

1. Appendix
 - 1.1. Technical References
 - 1.2. Letters of Support

Full Proposals will only be accepted electronically up until 5:00 PM PT on the due date of July 6, 2026. Please submit your completed proposal via email to flextechrfp@semi.org. A paper number (FT26-xx) will be assigned and provided after receipt of the full proposal. For ease of reference, proposers are encouraged to include this paper number in the subject line of all subsequent correspondence.

8. Proposal Evaluation

Full proposals will be evaluated by the RFP Review Committee based on a set of criteria that include budget, collaboration value, dual-use (commercial and military/aerospace) applicability, relevance to the ecosystem, relevance to advancing or demonstrating the role of Flexible Hybrid Electronics, schedule & milestones, deliverables, overall proposal quality, and team capabilities. Full proposal content requirements are listed in sections 7. Programs run up to 12 months, which includes a clear set of deliverables, quarterly project reviews, quarterly invoice packages, a demonstration component/system, and a final report.

Upon receipt, submissions will be forwarded to the RFP Review Committee. During the final selection process of full proposals, some communication or negotiation between the potential supplier and representatives of SEMI may be initiated over the terms, conditions, specifications, deliverables, schedule or other relevant factors contained in the proposal in advance of awarding a contract. Granting of any

awards to submissions in response to this RFP are contingent upon the continued availability of funding from the U.S. Government.

SEMI encourages proposers to assemble project teams with a broad range of skills and expertise—including engineering, materials science, manufacturing, data analytics, program management, and commercialization. Teams that integrate technical depth with operational, regulatory, and application-specific knowledge are better positioned to deliver impactful outcomes.

SEMI plans to grant and administer funding which should be matched (50% of total project cost requested) with funds in the form of cash and cost share contributions provided by the grant recipients to cover the total project cost. It should be noted that historically, funded development programs have averaged greater than 60% industry funding. Technical leaders from member companies and government will be identified to provide project oversight and direction.

In responding to this solicitation, partnering among industrial companies or industrial company/ R&D organization/university teams is highly encouraged. Individual responses will be considered if appropriate size, breadth and expertise are sufficient to effectively cover all areas (e.g., technical resources, financial stability, and market presence) critical to the successful completion of the proposal.

9. RFP Schedule

The tentative schedule of activities for the RFP is as follows:

May 19, 2026	RFP Issued
May 20, 2026	Webinar
July 6, 2026	Full Proposal Due
August 25, 2026	Notification of Award (Each full proposal Primary Point of Contact will be notified)

The RFP Schedule is subject to change based on availability of review personnel, commitment of federal funds, and other factors.

10. Resources

Additional information can be found at <http://flextech.org>

Additional information and guidance on prospective proposal partners may be available and should be requested at flextechrfp@semi.org. Please include a brief description of your institution's competencies/contribution and highlight the type of institution/partner that would increase the quality, maturity, or commercial viability of your ideas.

A webinar will be held on May 20, 2026, to review full proposal requirements and answer any questions from the public. A recording of the webinar will be available at <http://flextech.org>.

11. Contact Information

Communication and questions during the proposal period should be directed to flextechrfp@semi.org.