REARM SPECIAL CALL

INFORMATIONAL WEBINAR

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NEXTFLEX

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ACKNOWLEDGMENT

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AGENDA

- REARM Resources
- NextFlex Background
- Program Objectives & Eligibility Requirements
- Technical Topic Areas
- Proposal Information & Evaluation
- Q&A

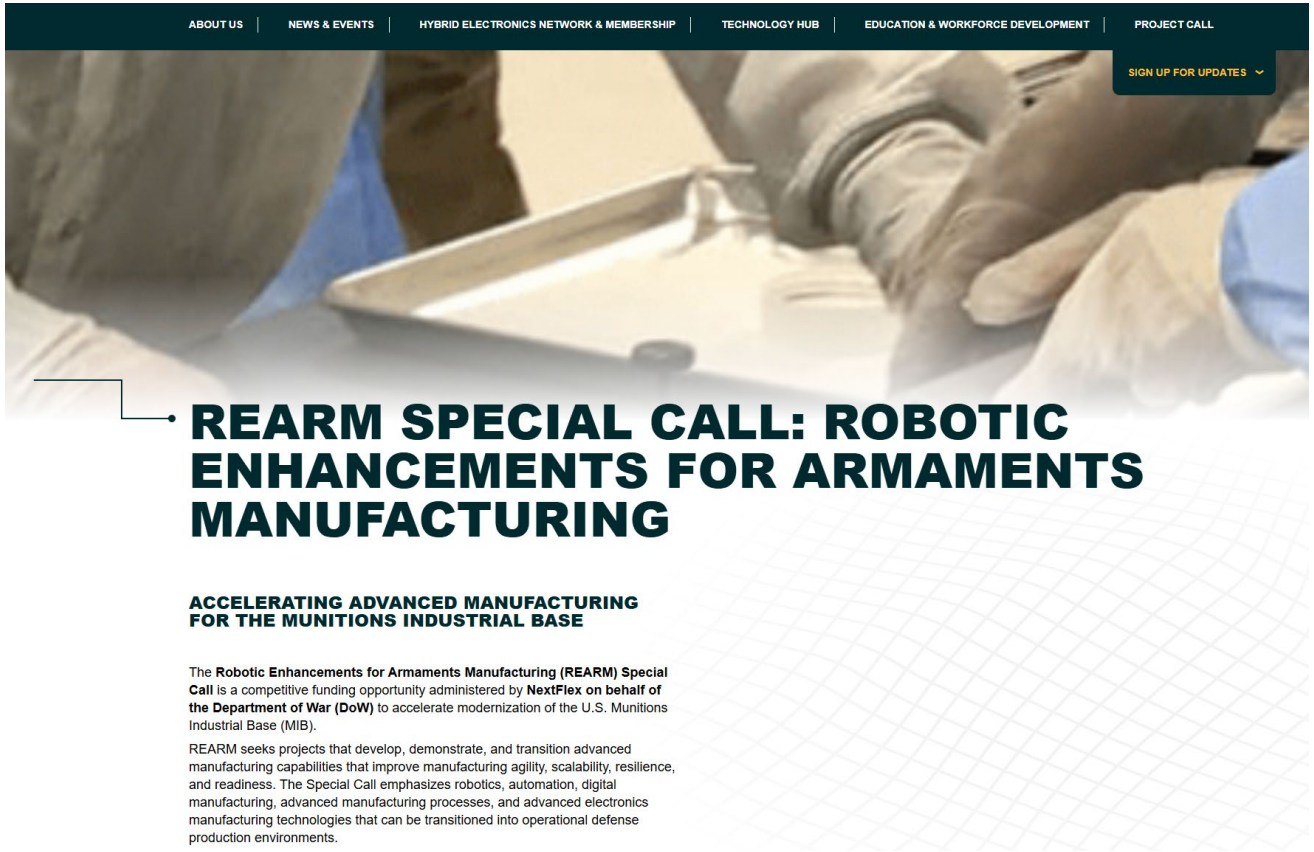
ADDITIONAL RESOURCES

REARM Guidebook

- Definitive reference for Special Call

Still have questions?

- proposal@nextflex.us



https://www.nextflex.us/rearm-special-call-robotic-enhancements-for-armaments-manufacturing/

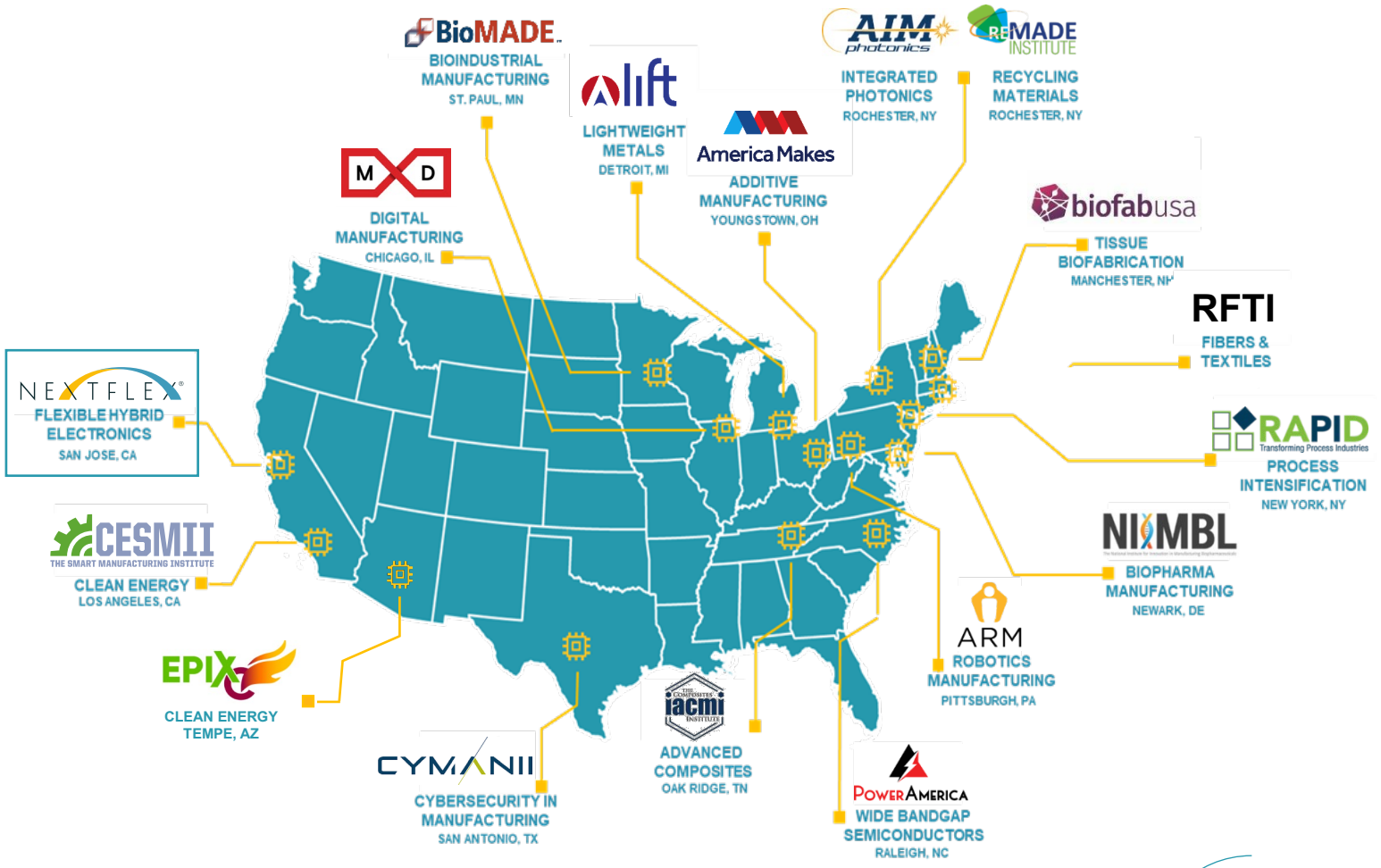
NEXTFLEX BACKGROUND

REARM SPECIAL CALL

INSTITUTES BUILD POWERFUL CONNECTIONS

Manufacturing USA connects people, ideas and technology to solve industry-relevant advanced manufacturing challenges. The 17 Manufacturing Innovation Institutes, 8 of which are funded by the Department of Defense, are enhancing industrial competitiveness and economic growth and strengthening our national security. The Institutes have three shared goals:

1. **Advance the manufacturing & technology process to full scale production**
2. **Create a robust industrial base around the technology**
3. **Secure human capital**



NextFlex: Hybrid Electronics Manufacturing Innovation Institute

NEXTFLEX®
CELEBRATING 10 YEARS OF HYBRID ELECTRONICS LEADERSHIP

Mission: Create a Strong U.S. Industrial Base for Hybrid Electronics

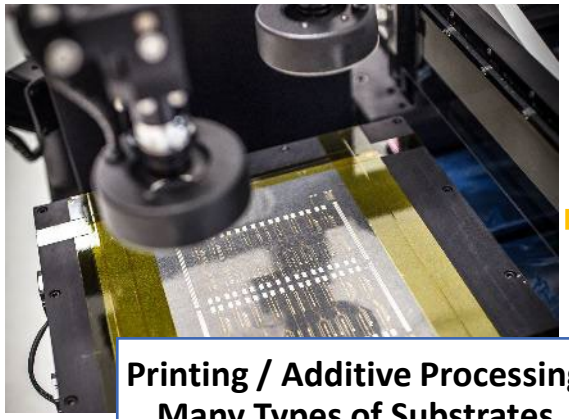
Public-Private Partnership Est.	August 28, 2015
Technology Hub Location	San Jose, California
Industry, Academic, Gov. Members	>200 across supply chain
State / Regional Hubs	New York, Massachusetts, Missouri, Alabama
Projects	>300 projects >$450M total value
Key Outcomes	Manufacturing Tools, Process, Products & Prototypes to DoD & Industry, Integrated Knowledge

DEPARTMENT OF DEFENSE MANUFACTURING TECHNOLOGY PROGRAM INNOVATING MANUFACTURING

Manufacturing USA®

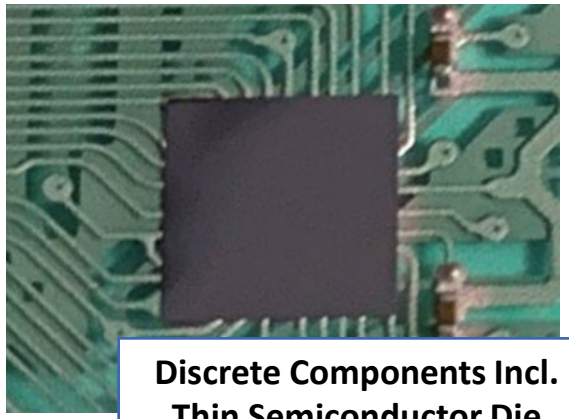
HYBRID ELECTRONICS MANUFACTURING

Hybrid Electronics (HE) combines additive electronics manufacturing with electronics assembly, enabling a many device types and spanning electronic packaging to system integration.



Printing / Additive Processing
Many Types of Substrates

+



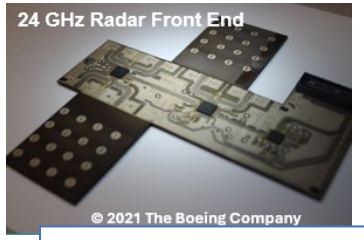
Discrete Components Incl.
Thin Semiconductor Die

=

Edge Device /
Machine Learning

Aerospace &
Automotive

Medical & Wearable

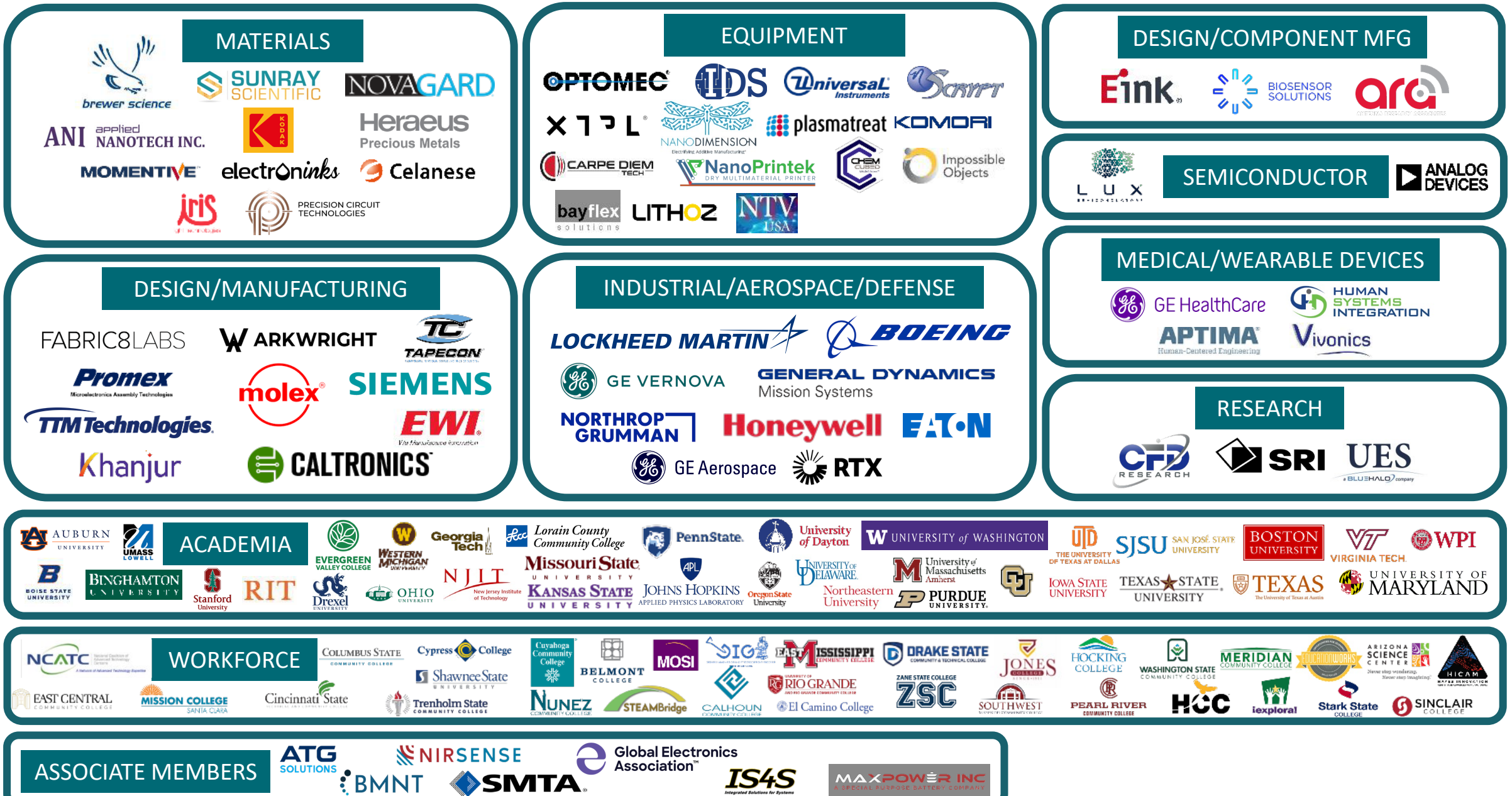


RF / Communications

3D Structural
Electronics

Additive Electronics
Flexible Electronics
Advanced Packaging
…

Industrial Base: NextFlex Members and Partners



GOVERNMENT PARTNERS AND SUPPORTERS

- Argonne National Laboratory
- Brookhaven National Laboratory
- Kansas City National Security Campus
- Lawrence Berkeley National Laboratory
- Lawrence Livermore National Laboratory
- National Renewable Energy Laboratory
- Oak Ridge National Laboratory
- Pacific Northwest National Laboratory
- Sandia National Laboratories
- Savannah River National Laboratory

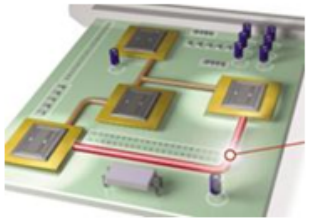
- NASA Ames Research Center
- NASA Goddard Space Flight Center
- NASA Johnson Space Center
- NASA Langley Research Center
- NASA Marshall Space Flight Center

69 Government partner organizations; many have been involved since the beginning and have expanded their relationship with NextFlex over time.

MRL AND TRL RELATIONSHIPS

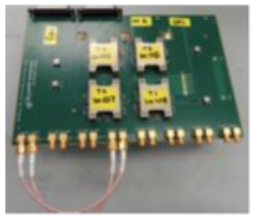
Pre-Material Solution Analysis			Materiel Solution Analysis	Technology Maturation and Risk Reduction		Engineering & Manufacturing Development		Production & Deployment	
MRL 1 Basic Mfg Implications Identified	**MRL 2** Mfg Concepts Identified	**MRL 3** Mfg Proof of Concept Developed	**MRL 4** Manufacturing Processes In Lab Env't	**MRL 5** Components In Production Relevant Env't	**MRL 6** System or Subsystem In Production Relevant Env't	**MRL 7** System or Subsystem In Production Representative Environment	**MRL 8** Pilot Line Demonstrated Ready for LRIP	**MRL 9** LRIP Demonstrated Ready for FRP	**MRL 10** FRP Demo'd Lean Production Practices in Place
TRL 1 Basic Principles Observed	**TRL 2** Concept Formulation	**TRL 3** Proof of Concept	**TRL 4** Breadboard in Lab	**TRL 5** Breadboard in Representative Environment	**TRL 6** Prototype in Representative Environment	**TRL 7** Prototype in Operational Environment		**TRL 8** System Qual	**TRL 9** Mission Proven

Breadboard



Focus Examples:
- **Technology and Industrial Base**
- **Materials**
- **Cost and Funding**

Brassboard



Focus Examples:
- **Design**
- **Process Capability and Control**
- **Quality Management**

Production

Focus Examples:
- **Manufacturing Workforce**
- **Facilities**
- **Manufacturing Management**

Slide adapted from AFRL Materials and Manufacturing Directorate

REARM SPECIAL CALL: OBJECTIVES AND ELIGIBILITY REQUIREMENTS

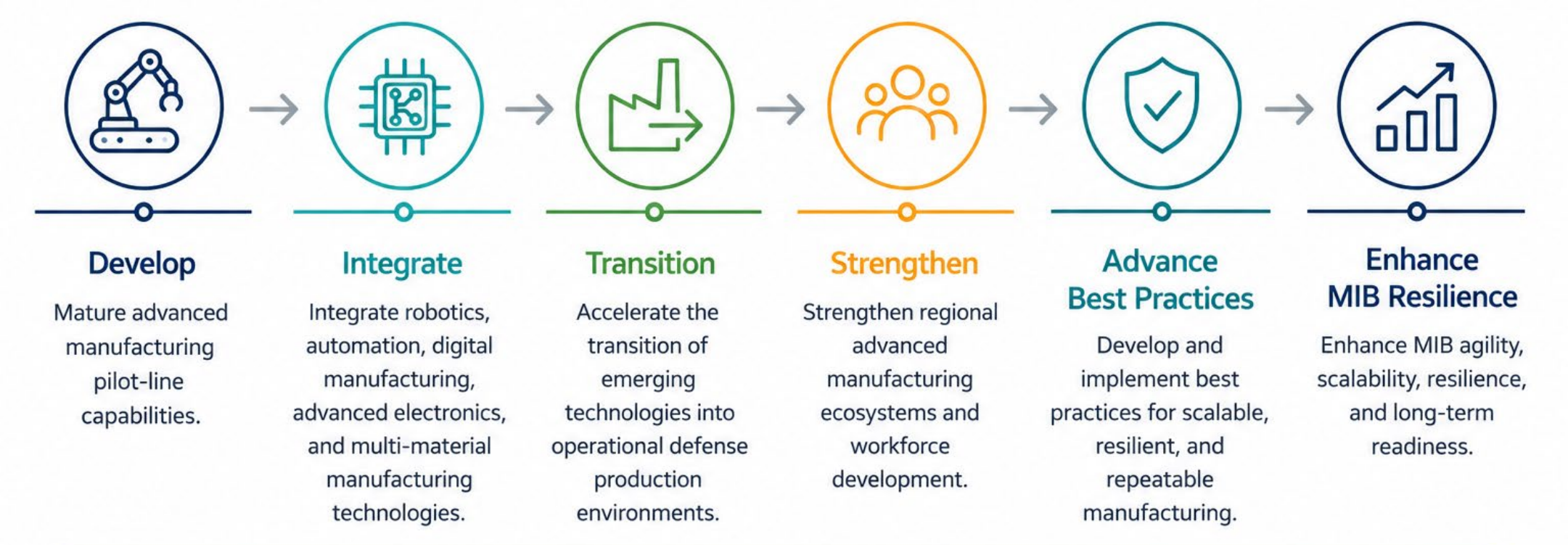
WHAT IS REARM?

Robotic Enhancements for Armaments Manufacturing (REARM) is a DoW-funded Special Call administered by NextFlex to accelerate modernization of the Munitions Industrial Base.

- Develop and demonstrate **advanced manufacturing capabilities** for defense production
- Accelerate transition of manufacturing technologies from **development to operational use**
- Leverage **robotics, automation, digital manufacturing, additive manufacturing, and advanced electronics manufacturing**
- Establish **advanced manufacturing best practices and prototype pilot-line capabilities**
- Improve manufacturing **agility, scalability, resilience, readiness, and workforce effectiveness**

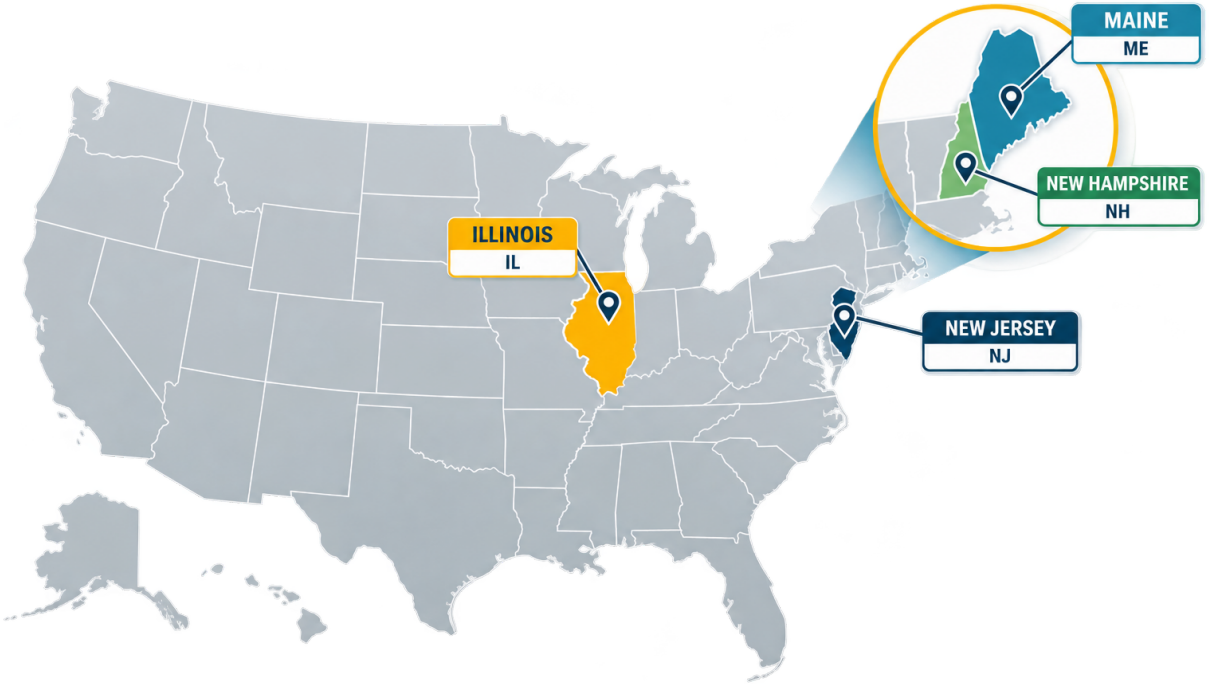
REARM PROGRAM OBJECTIVES

Accelerate the modernization of the Munitions Industrial Base (MIB) through advanced manufacturing pilot-line capabilities and transition.



Projects are expected to deliver measurable technical progress, tangible manufacturing outcomes, and a clear path to transition.

ELIGIBILITY REQUIREMENTS



Geographic Eligibility

- Project work is expected to be performed in the following states: **IL, ME, NH, and NJ**
- Limited out-of-state work allowed with justification
- Location and distribution of project activities will be considered during proposal evaluation.

NextFlex Membership

- Not required to propose
- Required (Tier 3 or higher) for organizations receiving funding
- Membership questions: **proposal@nextflex.us**

FUNDING AND AWARD STRATEGY

$1.4M AVAILABLE

DoW intends to prioritize all three Topic Areas equally.

TOPIC AREA 1

~$466K

Workforce Development and Operationalized Prototyping Ecosystems

TOPIC AREA 2

~$466K

Advanced Munitions Circuitry and Novel Energetics Engineering

TOPIC AREA 3

~$466K

Advanced Manufacturing of Microelectronics

MULTI-TOPIC PROPOSALS

- Proposals may address one or multiple Topic Areas.
- Multi-Topic proposals may request more than $466K total if scope and costs are clearly separated by Topic Area.
- DoW may fund all, some, or none of the Topic Area work proposed.

MULTIPLE AWARDS ANTICIPATED

No award is guaranteed within any Topic Area.

PERIOD OF PERFORMANCE

Up to 12-month period of performance.

COST SHARE

No cost share required.

PROPOSAL STRUCTURES ALLOWED

Three ways to submit:

1. **Single Topic Area Proposal**
   - *One proposal focused on one Topic Area*
   - *Includes one Technical Proposal, one Proposal Quad Chart, and one Cost Proposal*

2. **Multi-Topic Area Proposal**
   - *One integrated proposal addressing multiple Topic Areas*
   - *Scope, deliverables, and requested funding must be clearly separated by Topic Area*

3. **Multiple Independent Proposals**
   - *Separate proposals submitted for different Topic Areas*
   - *Each proposal must be complete and stand on its own*

OPTIONAL TASKS

- Permitted, but not required; should logically extend the base effort
- Include in an appendix; excluded from the 10-page limit
- Include task description, applicable Topic Area(s), anticipated benefit, and **ROM budget**
- Detailed Cost Proposal not required at submission
- DoW may fund none, one, or multiple optional tasks
- Scope and budget may be refined during negotiations

TECHNICAL TOPIC AREAS

TOPIC AREA 1: WORKFORCE DEVELOPMENT AND OPERATIONALIZED PROTOTYPING ECOSYSTEMS

NEXTFLEX®

Purpose

Establish and strengthen advanced manufacturing ecosystems capable of accelerating the transition of emerging manufacturing technologies from laboratory development to operational implementation.

Representative technical areas

- Advanced manufacturing workforce development and technical training
- Rapid prototyping and manufacturing process development
- Multi-material manufacturing and process integration
- Printed electronics, metals, ceramics, glass, and polymer manufacturing technologies
- Integrated manufacturing platforms spanning multiple material domains
- Manufacturing engineering methodologies and technology transition activities
- Development of advanced manufacturing best practices and pilot-line capabilities

Expected outcome

Projects should demonstrate how the proposed capabilities will improve manufacturing readiness, accelerate technology transition, and establish sustainable manufacturing infrastructure supporting future defense manufacturing needs.

TOPIC AREA 2: ADVANCED MUNITIONS CIRCUITRY AND NOVEL ENERGETICS ENGINEERING

NEXTFLEX

Purpose

Advance manufacturing capabilities supporting the design, development, integration, and scalable production of advanced electronic and energetic technologies for next-generation munitions systems.

Representative technical areas

- Smart munitions electronic circuitry
- Advanced electronic design, fabrication, population, and testing
- Power generation and power conditioning technologies
- Signal conditioning and electronic subsystem integration
- Positioning, Navigation, and Timing (PNT) technologies
- Novel energetics engineering and manufacturing
- Energetic formulation, prototyping, and integration
- Advanced manufacturing approaches supporting scalable munitions production

Expected outcome

Projects should demonstrate clear manufacturing benefits and provide a pathway toward transitioning advanced manufacturing methods into operational munitions production environments.

TOPIC AREA 3: ADVANCED MANUFACTURING OF MICROELECTRONICS

Purpose

Develop advanced manufacturing approaches that improve the fabrication, assembly, integration, and scalability of next-generation microelectronics and hybrid electronic systems supporting defense applications.

Representative technical areas

- Direct-write electronics manufacturing
- Inkjet printing of electronic materials
- Automated component placement and assembly
- Hybrid electronics fabrication and integration
- Multi-material electronics manufacturing
- Electronics process development and manufacturing validation
- Integration of advanced electronics manufacturing into pilot-line environments

Expected outcome

Projects should demonstrate how the proposed capabilities will improve manufacturing readiness, scalability, and transition of advanced microelectronics into defense production environments.

PROPOSAL INFORMATION & EVALUATION

PROPOSAL PACKAGE

Proposal Package must include:

1. **Technical Proposal** — PDF, 10-page limit per proposal
2. **Proposal Quad Chart** — 1 PowerPoint slide, use provided template
3. **Cost Proposal** — Excel (.xlsx), use provided budget template
   - For multi-topic proposals, **segregate costs by Topic Area**

Export-controlled / ITAR information may be included if necessary and must be clearly and appropriately marked. Do not include U.S. Government Classified information.

Submit to: proposal@nextflex.us

Deadline: September 10, 2026 at 5:00 PM PT

Note: If the proposal package exceeds typical email size limitations (approximately 20 MB), contact proposal@nextflex.us well in advance of the deadline for secure large file transfer instructions.

EVALUATION & SELECTION CRITERIA

Proposals will undergo a competitive **evaluation by DoW and NextFlex subject matter experts** and other qualified reviewers.

Evaluation Criteria

- Technical Merit & Innovation
- Technical Approach & Feasibility
- Project Management & Execution
- Manufacturing Impact & Transition Strategy
- Organizational Capability
- Cost Realism & Value

Additional Selection Considerations

- Alignment with the selected Topic Area(s)
- Balance across the three Topic Areas
- Portfolio diversity and complementary capabilities
- Benefit to DoW and the U.S. defense industrial base
- Geographic distribution of project activities
- Availability of funding

For proposals addressing multiple Topic Areas, each Topic Area will be evaluated independently. Additional selection considerations are **not separately scored**.

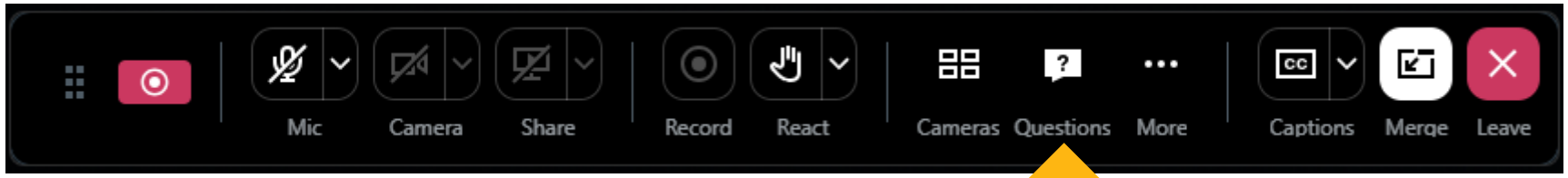
REARM KEY DATES

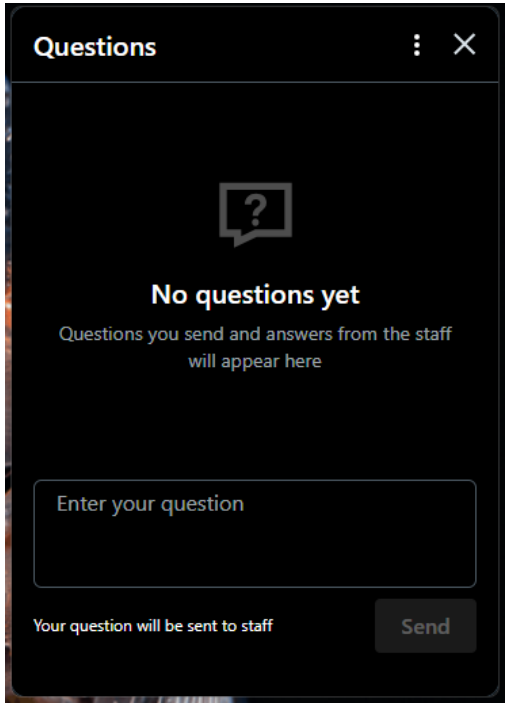
Event	Date
Special Call Announcement	07/31/2026
Informational Webinar	08/19/2026
Proposal Submission Deadline	**09/10/2026 (5:00pm PT)**
Anticipated Award Notification	Late Oct
Anticipated Project Starts	Jan 2027

Q&A

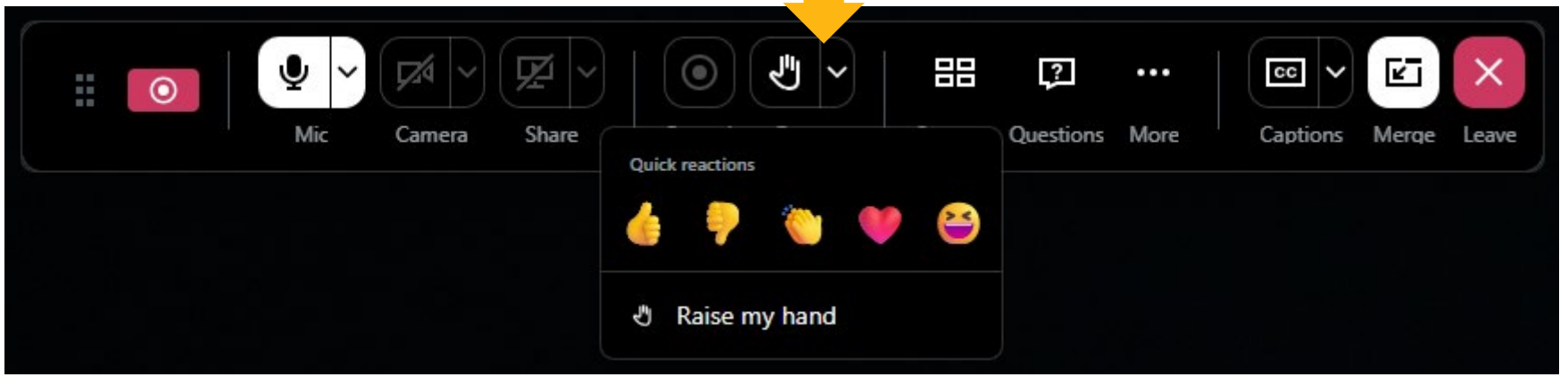
QUESTIONS?

- **Method 1: Click “Questions” on the control bar and enter your question in the Questions pane that pops up.**





- **Method 2: Raise your hand by clicking the “React” button on the control bar and then clicking “Raise my hand.”**



- **Method 3: Unable to access GoToWebinar? Email your questions to marcom@nextflex.us**

proposal@nextflex.us