Welcome to

Advanced Textiles EXPO®

ORGANIZED BY ATA



ritin RHODE ISLAND TEXTILE INNOVATION NETWORK

- Founded in 2014 at the urging of Sen. Sheldon Whitehouse
- Includes Rhode Island's textile companies, universities, MEP, and other government organizations and agencies
- More an affiliation than an association
- Mission? The three Cs:
  - Close the skills gap
  - Create business opportunities for our textile companies
  - Collaborate with academia, government, K-12 system, and the community

URI Textiles Program (TMD) Profile

Covers every aspect of the textile & fashion industry supply chain.

Prepares students for a wide range of careers.

- E.g.: assistant designers, fashion merchandisers, production coordinators, retail managers, allocation analysts, assistant buyers, and quality control specialists.

BS - Textiles, Fashion Merchandising & Design, Textile Marketing

MS - Textiles, Fashion Merchandising & Design (includes conservation)

Collaborations

- Study – College Students' perceptions of the industry - 2018
- URI Textile Industry Networking Fair - February 2019
- TMD Curriculum Study – What will the class of 2030 need to know about textiles – Spring 2021
- Sustainability Forum – URI – September 2022
- Joint Webinar – Made in USA Apparel – April 2023
- Future Textiles Council - 2024

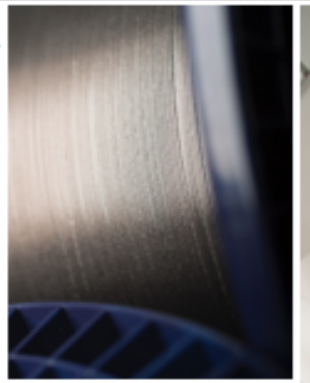
AFFOA at a Glance

Accelerating next-generation wearable systems from concept through manufacturing

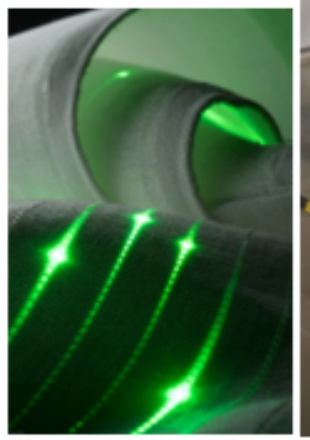
- **Non-profit 501c(3) engineering organization founded in 2016, specializing in advanced materials and textiles, soft wearable systems and sensor integration.**
- **We help organizations develop, prototype, and scale next-generation advanced textile and soft wearable solutions through:**
  - **In-house Engineering & Prototyping:** Design, prototyping, testing, and systems integration capabilities within our 18,000 sq.ft. advanced prototyping facility in Bedford, MA
  - **National Innovation Ecosystem:** Network of 150+ organizations, including startups, universities, manufacturers, and technology providers, spanning the full value chain from functional fibers to end-item manufacturing and commercialization
  - **Workforce & Talent Development:** National workforce development initiatives supporting the future of advanced manufacturing and wearable technologies
- **Headquartered in Bedford, MA with State-of-the-Art Prototyping Facility**
  - Team of multi-disciplinary scientists and engineers working to bridge the gap between early-stage technology and full-scale manufacturing
- **Proven track record supporting industry and government partners from concept development through prototyping, testing, and manufacturing readiness.**

Industry: Google, TOYOTA, NORTHROP GRUMMAN, BLUE ORIGIN, E Ink.

Government: USDA, NIST









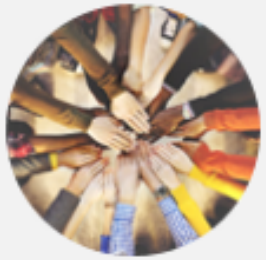
Education and Workforce Mission and Approach



AFFOA's Education and Workforce Development Mission

AFFOA's EWD mission is to **inspire**, **prepare**, and **grow** a **skilled workforce** that aligns with the future needs of the **advanced textile** industry.

We do this by **collaborating** and **launching programs** that support current and future advanced fabric workers from cradle to career, helping the overall textile workforce evolve into a more technical and interdisciplinary field.



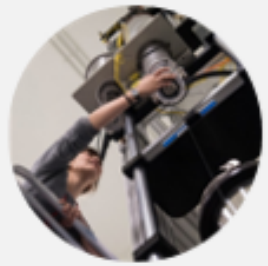
Connect with the Right Stakeholders



Build Awareness



Support the Workforce



Support Next Gen Innovators

Advanced Textiles Manufacturing Challenges: Workforce Current State

Talent Impacts of Continued Offshoring of US Textiles Supply Chain

- **Innovation and Modernization**: US Textiles Manufacturing lags global innovation and engineering, creating a workforce ecosystem relying on older equipment and practices.
- **Wages that Lag other Manufacturing Sectors**: US Textiles Manufacturing wages lag other more US-competitive sectors that have been able to reinvest in capital and process improvements.
- **Aging Workforce:** Current US Textiles Manufacturers top talent within 5-10 years of retirement, without an engaged younger generation to replace them.
- **Recruiting and Retention of Next Gen Talent Pipelines:** Loss of innovation and modernized factories has led to mass hemorrhaging of talent to higher wage | higher technology sectors
- **Disconnected Workforce Training Programs:** Industry members seeking talent without college degrees but training lacks connection to soft goods manufacturing.



Risks and Threats:

- The long-term decline in the industry; inability to modernize processes over time; has created an industry that has difficulty attracting younger workers who seek higher wage and more digital-first work environments
- This has led to a National Security threat given the US Defense need to purchase US-Made Goods to outfit its warfighters

EWD Roadmap Thrusts: Mod 3 Focus Areas

Thrust 1	Expand High School/CTE Program Suite for New/Emerging Workforce
Thrust 2	Establish Training and Upskilling Program Suite for Existing and Emerging Workforce Needs
Thrust 3	Build Textile Industry Awareness and Share Workforce Development Best Practices
Thrust 4	Grow AFFOA's Suite of Programs to Support Interdisciplinary Engineers, Designers and Innovators
Thrust 5	Develop AFFOA's Model for the Modernization of the Industry through a Facilities + Workforce Innovation Hub

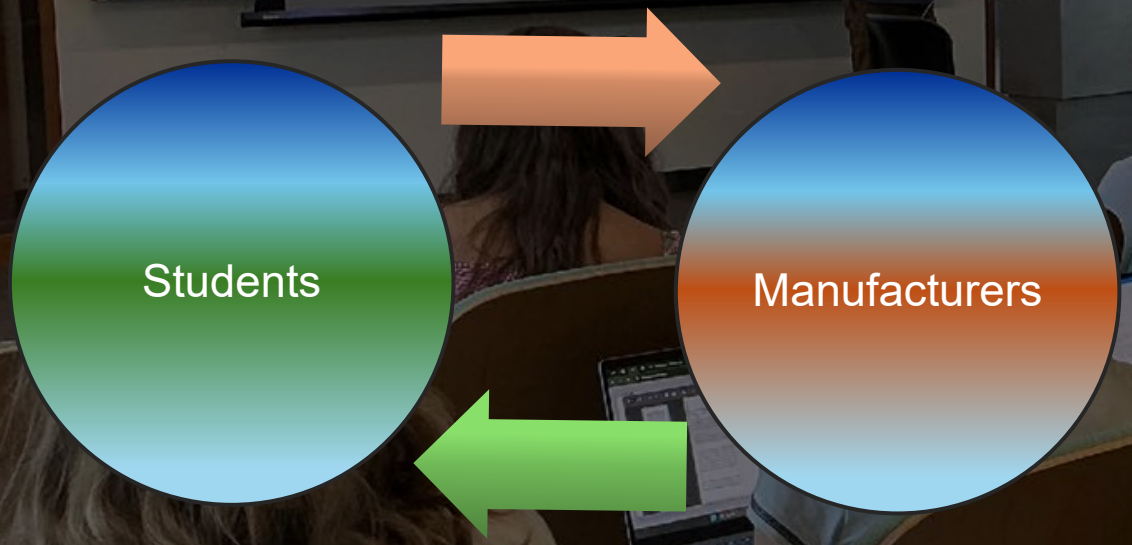


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The Process (Future Textiles Council)

- Gather stakeholders – textile company executives, academia, political champions, textile focused organizations
- Brainstorm and record opportunities and challenges
- Organize opportunities and challenges into general categories
  - Collaboration and action
  - Recycling and waste management
  - Workforce development
  - Education and awareness
- Prioritize potential tasks – urgent, somewhat urgent, not urgent
- Form groups > Work toward benchmarks

Purpose of Curriculum



- Provide students the benefit of applied and experiential knowledge – not simply the “what” but also the “how” and “why.”
- Provide students a deeper insight into industrial textile products and supply chains – go beyond fabric and apparel.
- Provide students real-world, *local* case studies.
- Present an up-to-date profile of modern textile companies and how they function
- Create networking opportunities between textile company executives and students at all levels

Core competencies of RI textile manufactures

Applied areas of study

- Overview of supply chains
- Products and process
- Materials overview
- Textile testing
- Textile finishing
- Technical & smart textiles
- New textile mfg. technologies
- Industrial designs
- Cut and sew – commercial and industrial
- Finished product recycling
- Mfg. waste recycling
- Composites and textiles
- Berry Amendment compliance

Current Brief: RITIN Foundations Progress

Program Activation

Rhode Island Textiles Innovation Foundations Certificate

RITIN Fundamentals Overview: **RITIN Foundations** builds on Rhode Island's legacy as the birthplace of the U.S. textile industry, dating back to Slater Mill, by reconnecting education with modern manufacturing. Today, that pipeline is fragmented. Led by the Rhode Island Textiles Innovation Network (RITIN)—an industry consortium supported by Senator Whitehouse—this program bridges the gap by bringing industry leaders into the University of Rhode Island to develop an asynchronous Foundations course for Community College of Rhode Island students. The result is a scalable, industry-informed pathway that aligns talent development with real workforce needs.

INDUSTRY LINE-UP

Trans Tex, LLS | NeoCorps | Darlington Fabrics | AmeriSewn | Brookwood Companies | Nautilus Defense | Kestrel Innovative Fibers | Murdock Webbing



Building tomorrow's workforce by bringing industry, academia, and government together to solve regional economic need.

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Building the Curriculum

“Proof of Concept” by Fall of 2026:

- Seminar-style course held on URI campus in Spring of ‘26
  - Industry and community members speak to students and are recorded and interviewed.
- Materials produced, edited, and packaged
  - Create discrete online asynchronous modules for a 1-credit-equivalent course component.
- Differentiated versions to be created
  - For different levels of education (high school, community college,…)
- New module created yearly – open access
  - Aiming for 4 or 5 modules, suitable for a “stackable certificate.”

VIDEO CLIP GOES HERE

Propagating Curriculum by Region

- Necessary partners in each region
  - Textile companies (class presenters on individual companies' areas of expertise)
  - MEP (Manufacturing Extension Partnership) – knowledge of textile company contacts
  - Academic champion(s) at the university level
  - AFFOA – visionary model, national presence, local impact
  - Political champion(s) – local and/or national
- Where do we begin? – Rhode Island, Massachusetts, Maine…

ACTION ITEMS

Collaboration and Action

- Develop a centralized online resource for the RI textile industry (RITIN website?)
- Conduct a comprehensive “mapping” survey of the RI textile landscape (stakeholders)
- Conduct a thorough inventory of existing resource: available technology, knowledge skills, relevant databases, current & planned funding opportunities, and ongoing initiatives
- Organize local workshops with a collaborative agenda to make textiles exciting again

Workforce Development

- Survey businesses and academic institutions to determine workforce development needs
- Explore how to leverage New England regional connections for workforce development initiatives
- Survey individuals who have left the textile industry to understand their reasons for leaving
- Develop “knowledge tethering” programs to facilitate the transfer of expertise (e.g. Rhode Island’s Bagley Skills Bridge)
- Develop educational initiatives to foster a more positive perception of the textile industry

Education and Awareness

- Create a “book” (potentially a digital resource) outlining career paths within the textile industry
- Conduct open house career fairs to raise awareness and attract talent
- Encourage manufacturers to offer facility tours and connect these with broader information sessions
- Create curriculum tailored to reflect local textile industry core competencies for university level course
- Develop curriculum packets for local high schools


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