



IES Solutions Overview

- *Dr. Fiona Baxter, Associate Executive Director, Industry Expansion Solutions
Assistant Director, NC Manufacturing Extension Partnership*
- *Michael Mullins, Director, North Carolina Defense Industry Diversification Initiative (NCDIDI)*

WE ARE

NC STATE INDUSTRY EXPANSION SOLUTIONS

- › IES is the engineering-based, solutions-driven, client-focused extension unit of **NC State's College of Engineering**.
- › Our broad portfolio of solutions and deep industry expertise helps organizations grow, innovate and prosper
- › Our extensive partnerships with business, industry, education and government generate a unique culture of collaboration that provides access to cutting-edge expertise, research, and technology.

WHAT WE DO

- › IES helps improve, promote and connect industry to world-class research of NC State
- › We deliver solutions that result in lower costs, better products and higher efficiencies
- › Since 2000, IES-led NCMEP efforts have resulted in \$2.9B economic benefit to the State of North Carolina.

WE ARE

NC STATE INDUSTRY EXPANSION SOLUTIONS

PAST/PRESENT

Founded in 1955, IES was initially created to serve the manufacturing sector. We now serve the following industries:

- › Education and Research
- › Healthcare
- › Manufacturing
- › Military
- › Energy
- › Public Sector.

FUNDING SOURCES

Our funding comes from a variety of sources, such as:

- › National Institute of Standards and Technology (NIST) (MEP)
- › NC State Legislature
- › Client fees for service
- › Grants

OUR GOALS.

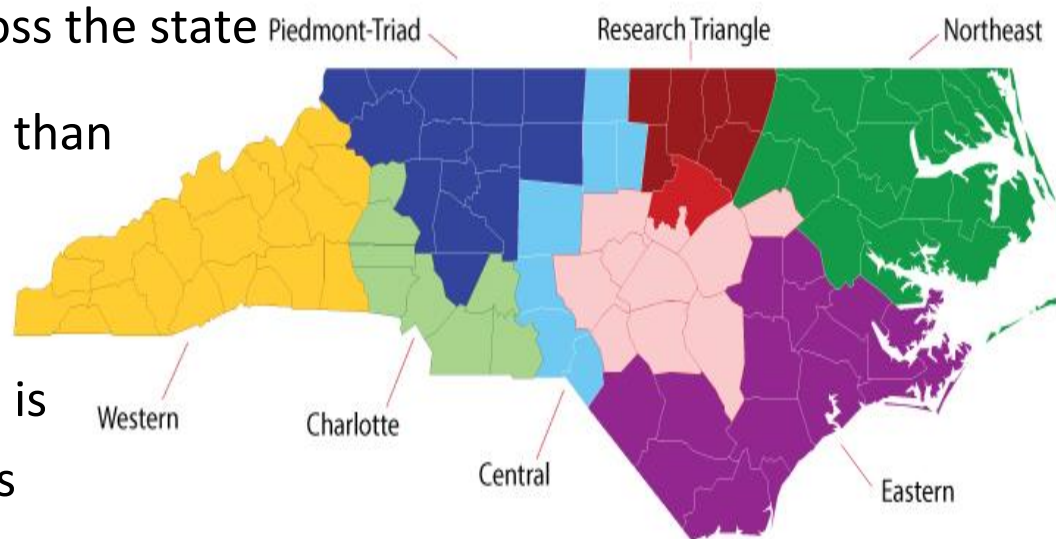
- › To increase economic value of NC businesses
- › To be the client solutions provider of first choice
- › To be the statewide leader in developing partnerships that bridge NC businesses, universities, community colleges and business support organizations
- › To achieve and be nationally recognized for performance excellence
- › To develop and deploy strategic initiatives to improve workforce education both inside and outside NC State University.



IES SERVES ALL OF NORTH CAROLINA

North Carolina IES Regional Offices

- › We have approximately 62 staff in regional offices and home offices across the state
- › Our specialists average more than 15 years each in private industry experience
- › Our highly experienced team is composed of former business executives, engineers, process leaders and managers.



WE ARE

NC STATE INDUSTRY EXPANSION SOLUTIONS

EXPERTISE

- › Our expertise extends to diverse areas like process optimization, quality management, workplace health and safety, sustainability and energy and innovation and growth strategies
- › IES also administers the Manufactured in North Carolina (MNC) supply chain tool and website and Manufacturing Connections Program.



NIST MEP PROGRAM PARTNERS



Since 1996, IES has been the designated state agency for the federal **National Institute of Standards and Technology Manufacturing Extension Partnership (MEP)**.

NCMEP Program Partners include:

- › IES (Program Administrator)
- › The Polymers Center of Excellence
- › Manufacturing Solutions Center
- › NC Community Colleges
- › East Carolina University
- › Economic Development Partnership of NC (EDPNC)
- › UNC Charlotte
- › North Carolina A&T State University
- › NCSU Wilson College of Textiles
- › Hangar6

NCDIDI



**NORTH CAROLINA
DEFENSE INDUSTRY
DIVERSIFICATION INITIATIVE**

CONNECTING THE DOTS, EXPANDING OPPORTUNITIES

**Industry Expansion Solutions
DoD Office of Local Defense Community
Cooperation (OLDCC) Grants**

<https://www.ies.ncsu.edu/ncdidi/>

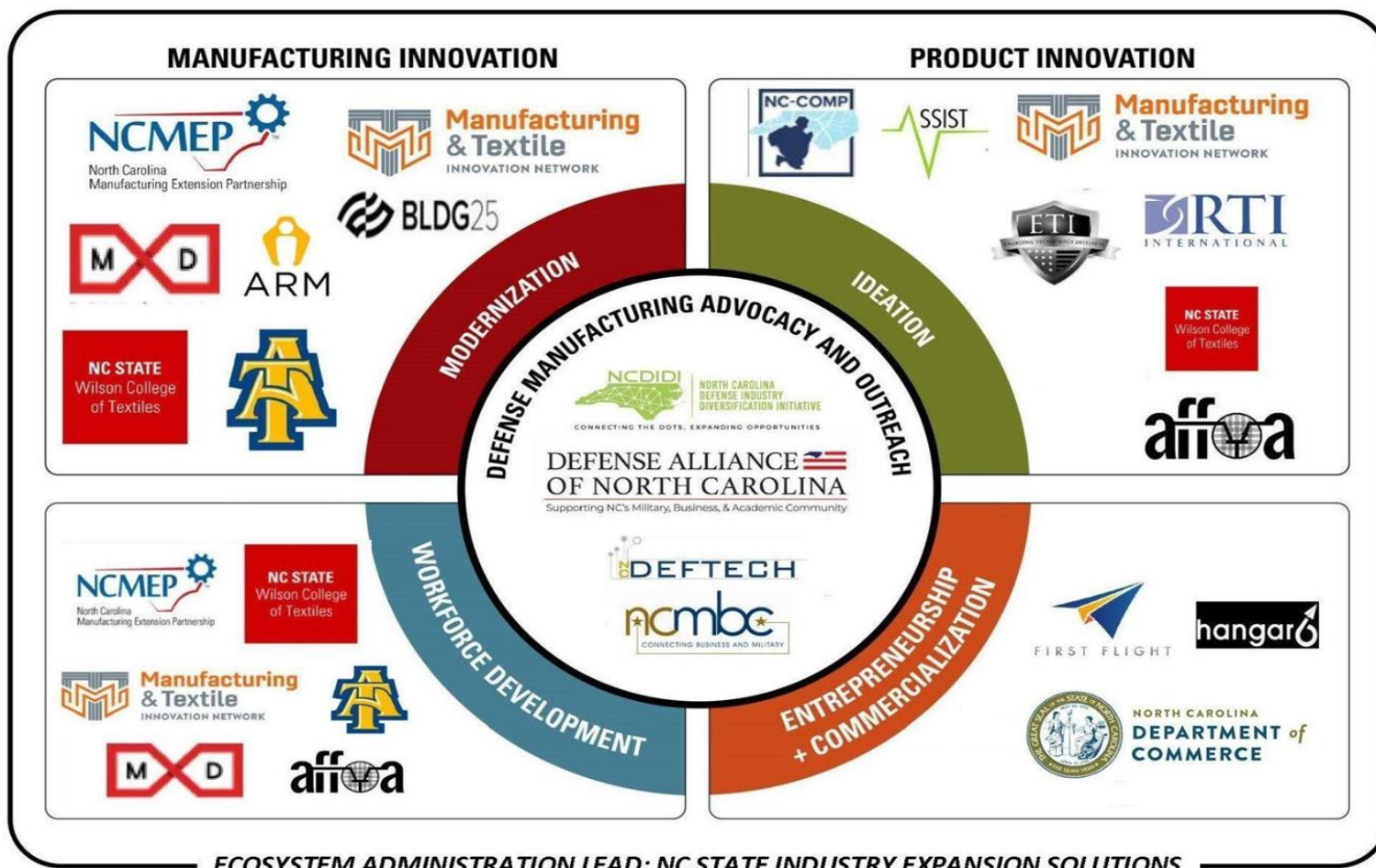
OLDCC Grants (Phase I and II)

- OLDCC Pilot Grant (Phase I) 01/2017 - 10/2018 in the amount of \$2.2 million
 - Established the North Carolina Defense Industry Diversification Initiative (NCDIDI)
 - Conducted supply chain mapping analysis of NC's defense industry
 - Conducted 10-company growth and diversification pilot project
- OLDCC Implementation Grant (Phase II) 10/2018 - 06/2021 in the amount of \$3.0 million
 - Conducted 20-company growth and diversification project (aerospace industry)
 - Conducted company cybersecurity assessments and additive manufacturing training program

NC DMCS

- Federal funding is \$5 million and match is \$2.4 million. Grant period is 9/2021 - 8/2026
- The DMCS is designed to support long-term community investments that strengthen national security innovation and expand the capabilities of the defense manufacturing industrial ecosystem
- Vision: The North Carolina DMCS will become a best in class innovation ecosystem for smart textiles research, development, and production, in support of warfighter performance.
- Mission: Grow textile manufacturer capacity to produce marketable advanced functional fabrics and wearable devices. This will be achieved by increasing understanding of and ease of access to an ecosystem of coordinated and efficiently aligned expertise, facilities, equipment, and services.

NC DMCSP Ecosystem



**NC STATE
UNIVERSITY**

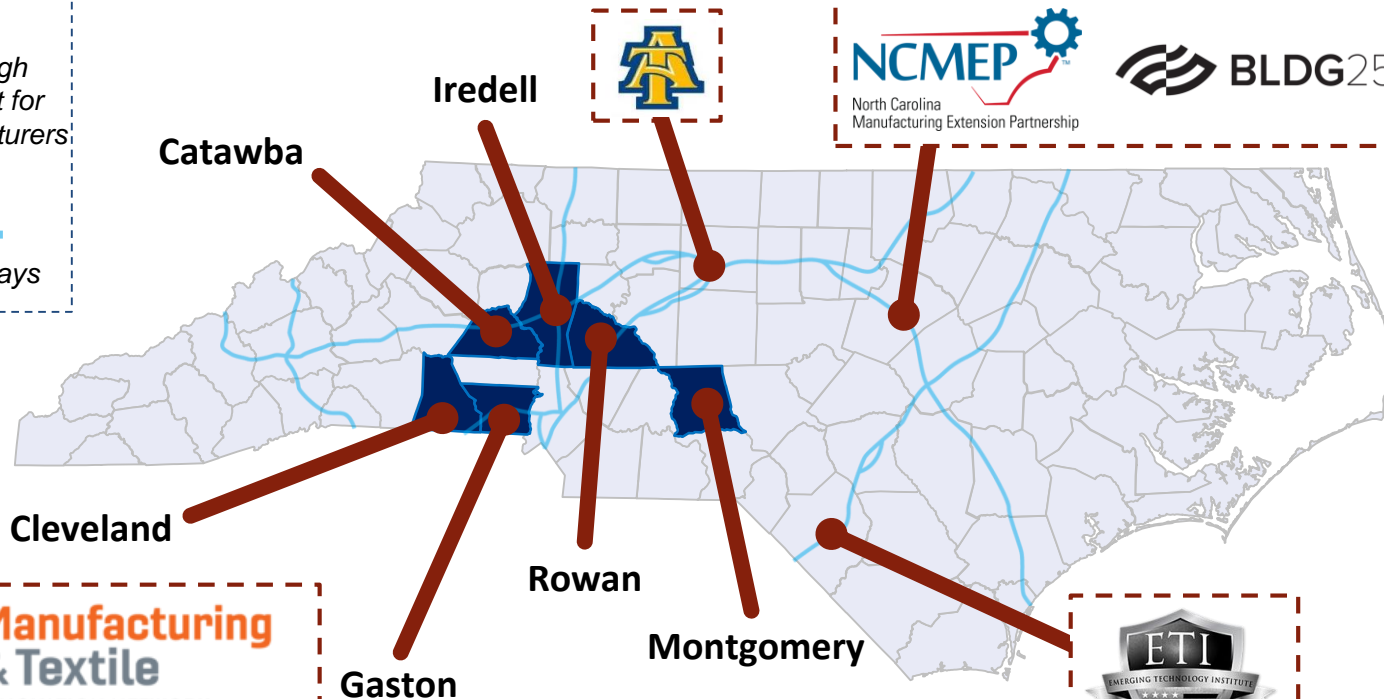
Industry Expansion Solutions

Service Area

Key

Counties with high location quotient for Textile Manufacturers in the DIB

Interstate highways



NC STATE UNIVERSITY

RTI INTERNATIONAL

FIRST FLIGHT

NCMEP North Carolina Manufacturing Extension Partnership

BLDG25

SSIST

Manufacturing & Textile

INNOVATION NETWORK

Partners in Gaston and Catawba





“Reshoring” a Talent Ecosystem in North Carolina’s Textile Industry:

Establishing a Model for Workforce Development

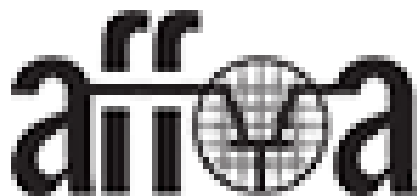
AFFOA Grant Award - Weaving a Talent Ecosystem in North Carolina's Textile Industry

- The primary goal of this proposal is to create and cultivate key statewide and regional collaborations to address both the current and next generation workforce in North Carolina
- Grant partners will identify the skills and talent gaps within the textile industry across these twelve counties to facilitate a comprehensive approach to re-building a talent pipeline for the textile industry

PARTNERS



Gaston College



CVCC & Gaston College

Create Partnership



**Manufacturing
& Textile**
INNOVATION NETWORK

NC STATE

Industry Expansion Solutions



NC STATE
Wilson College
of Textiles



North Carolina
Manufacturing Extension Partnership

Objectives of the AFFOA Workforce Grant

- Increase access to data and information to better define the regional textile economy in which to model interventions, addressing the gaps between demand and supply and drawing from assets across the state to support project goals
- Expand educational resources aimed at building an educated and skilled advanced manufacturing workforce confident in using emerging tools and technologies of the industry (driven by trends coming out of the manufacturing institutes)
- Create a sustainable and replicable partnership model to implement a multi-year plan based on program findings to support and advance the NC textile industry.

Questions

