



ct manufacturing
SUMMIT FOR EDUCATORS

APRIL 5, 2023

Agenda

- Welcome – Ron Angelo, CCAT CEO
- State Leadership Updates facilitated by Dr. Sal Menzo, Supt, Goodwin Magnet Schools
 - Paul Lavoie, Chief Manufacturing Officer
 - Tracy Ariel, Governor's Office of Workforce Strategies
 - Shannon Marimón, ReadyCT
- Panelist Q&A
- Regional Sector Partnership (RSP) Breakout Sessions
- RSP Report out and Q&A
- Statewide resources





**Goodwin
University**

Magnet School System



**Dr. Salvatore Menzo
Superintendent
Smenzo@goodwin.edu**



Riverside Magnet School



CTRA Middle Level



CTRA High School



Early College Advanced
Manufacturing Pathway (ECAMP)



Paul Lavoie
CT Chief Manufacturing Officer
State Of Connecticut



Tracy Ariel
*CT Office of Workforce
Strategy*
State Of Connecticut

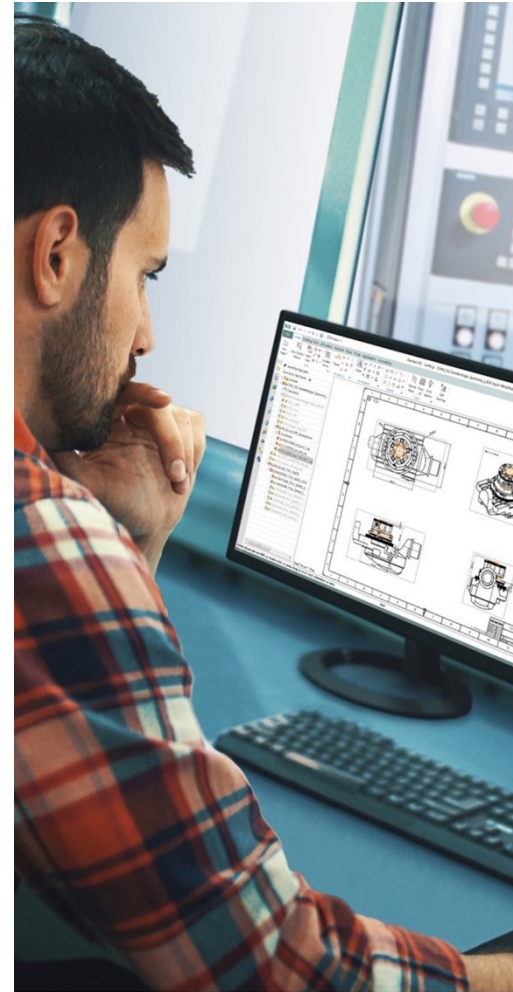


Shannon Marimón
Executive Director
ReadyCT

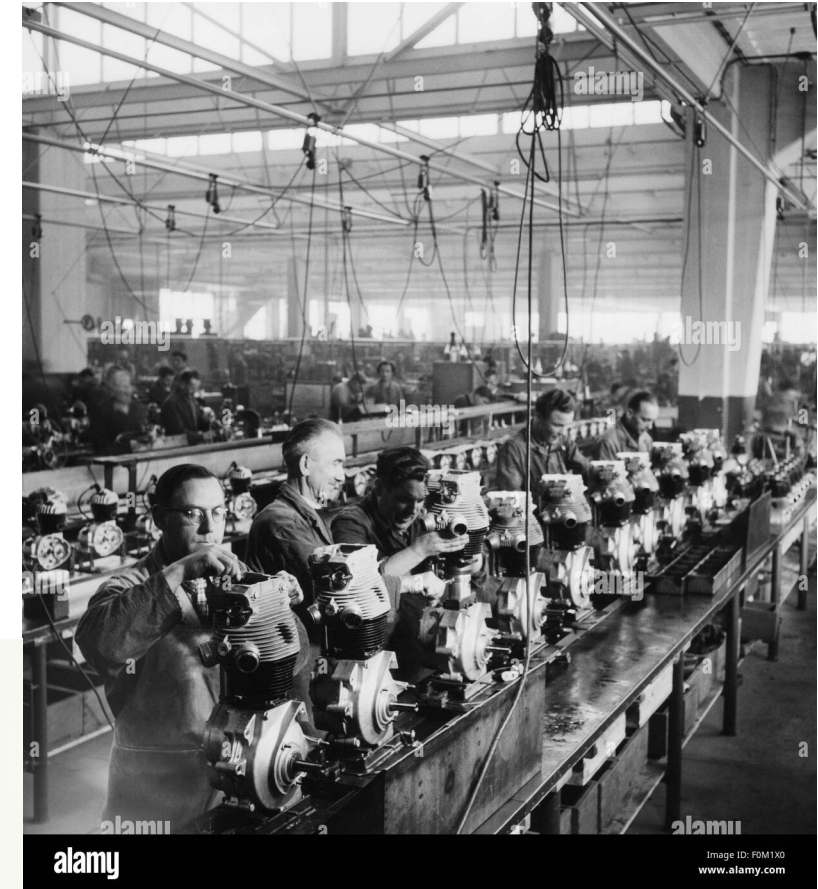
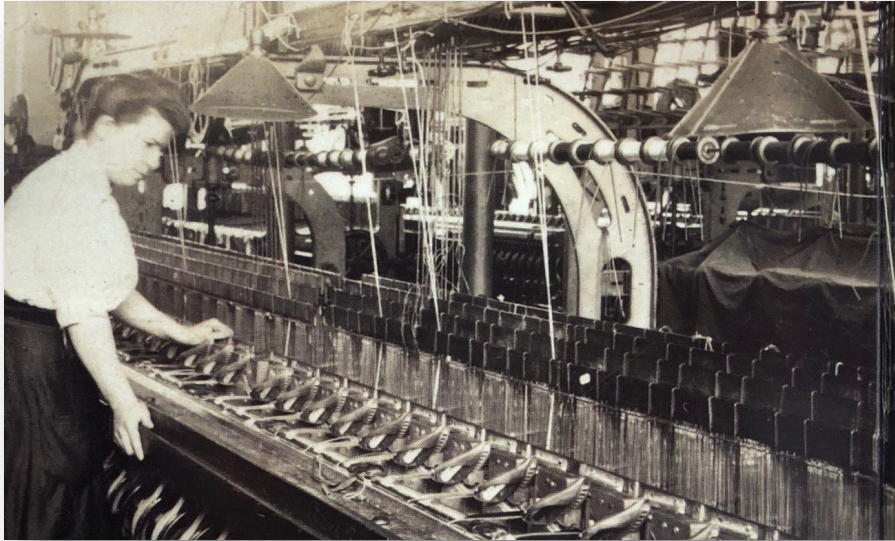


THE STATE OF MANUFACTURING

Paul S. Lavoie
Chief Manufacturing Officer
State of Connecticut

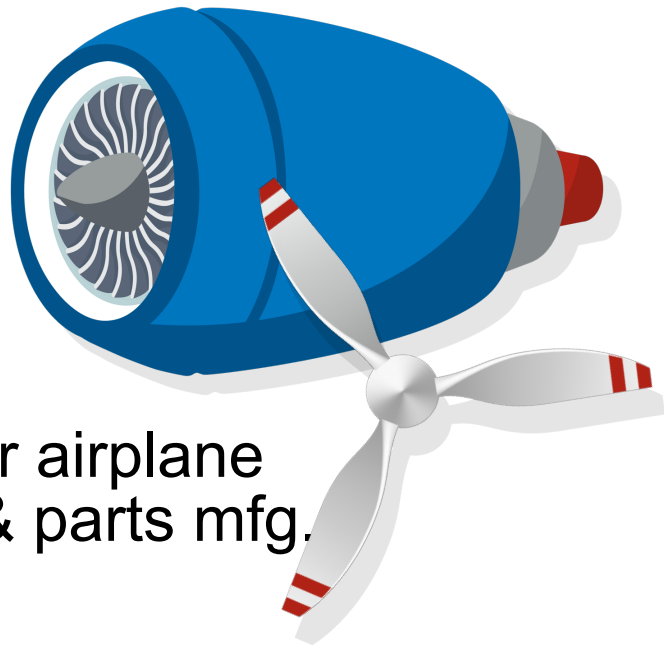


THE PAST



#1

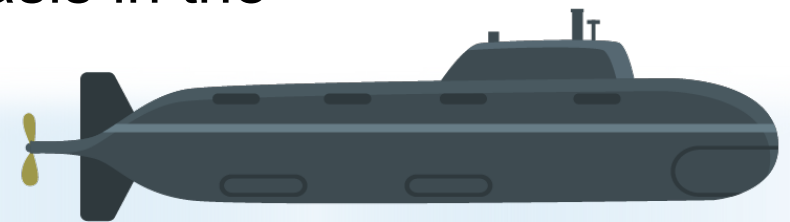
Metro for airplane engine & parts mfg.



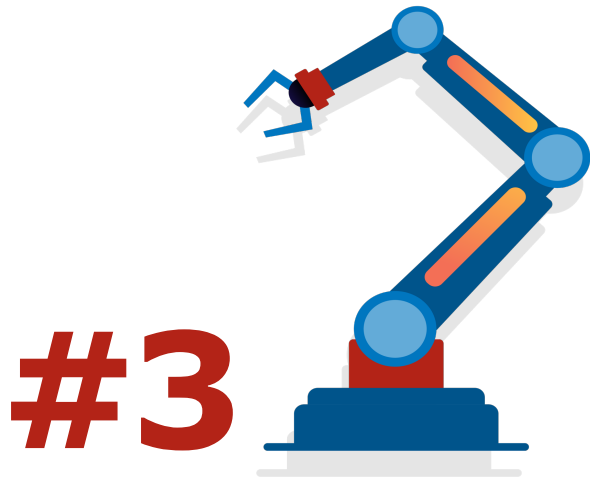
U.S. Bureau of Labor Statistics, 2020
Source date: October 1, 2020

#3

In defense spending per capita basis in the U.S.



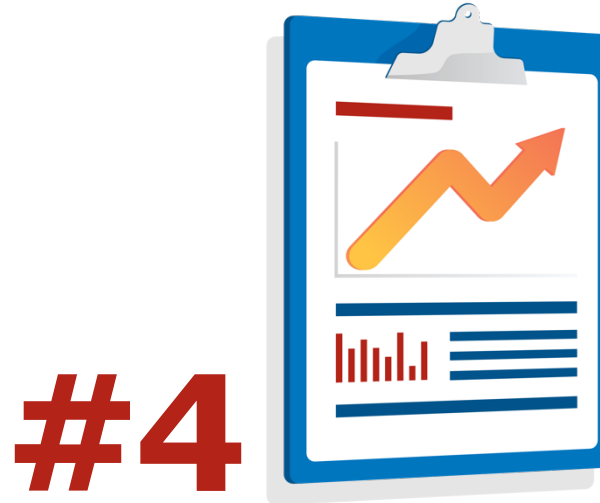
Department of Defense, ODLCC Report, 2022



#3

in U.S. for most concentrated manufacturing area

Bureau of Labor Statistics,
County Business Patterns, 2018



#4

in U.S. for productivity of employees

U.S. Bureau of Economic Analysis, 2019;
U.S. Census Bureau, 2019; AdvanceCT
calculations

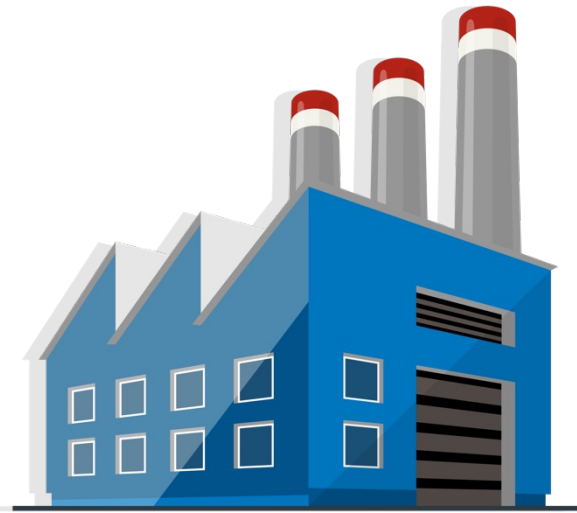


#4

in U.S. for most innovative economy

Bloomberg, 2020

A TOP EMPLOYMENT SECTOR IN CONNECTICUT



4,300+
advanced
manufacturers



161,000+
manufacturing
employees

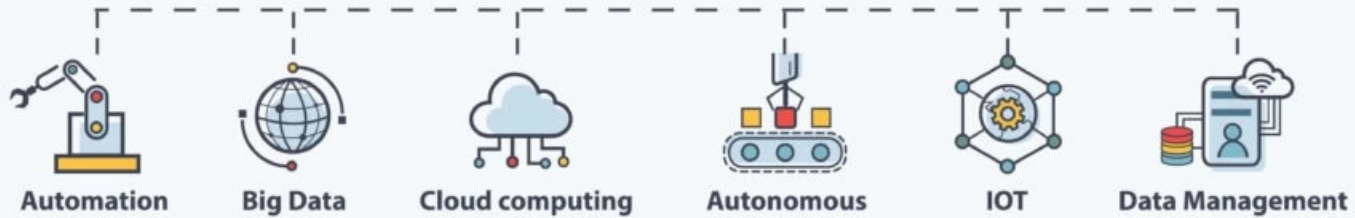
40%
work for the top
25 companies

60%
work for companies
averaging less than
25 employees

THE FUTURE



INDUSTRY 4.0



THANK YOU



Paul S. Lavoie

Chief Manufacturing Officer
State of Connecticut

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OFFICE OF WORKFORCE STRATEGY
CONNECTICUT

April 6, 2023

GWC Strategic Pillars



Executive Committee

GWC Executive Leadership



WIOA (Workforce Innovation & Opportunity Act) Steering Group

Author the State WIOA Workforce Strategic Plan; Align of Regional Plans; Coordinate WIOA partners; Adult Education



Data & Performance

Credential Registry; jobs.ct.gov; Dashboards & Standard Evaluation Framework; CTHires Enhancements; P20WIN Workforce Request



Diversity, Equity, Inclusion and Access

Re-entry; Veterans; People with Disabilities (Supportive Employment Services); Youth; BIPOC, Early Childhood Education; Transportation; Benefits Cliffs; AJC Navigator Pilot;



Business Leadership & Sector Training

- Regional Sector Partnerships
 - Skills Based Hiring
 - Quality Jobs
 - CampusCT (Retaining College Graduates)

- Short-Term Upskill/Reskilling Training Programs (Industry Recognized Credentials)
 - Manufacturing, Healthcare, IT, Construction, Clean Energy, Bioscience
- Incumbent Worker Training
- Pay-it-forward fund
- SNAP E&T



Education & Career Pathways

- Pathways Policy & Development (High School to Post Secondary)
 - Dual Credit/Dual Enrollment
 - WBL (Business Leadership Partnership)
 - Career Exploration & Advising
 - Teacher Professional Development

GWC Strategies: Implementation Timeline

2020

2021

2022

Plan

- Developed GWC strategic plan with 19 different initiatives
- Developed ARPA proposals to support economic recovery through job training

Launch

- Launched initiatives in the strategic plan
- Designed CareerConneCT
 - \$70M towards workforce training
 - \$40M towards improving the workforce system
- Proposed and Awarded Good Jobs Challenge \$23.9M

Execute & Iterate

- Develop KPIs for the strategic plan
- Launched CareerConneCT
- Support agency partners on workforce-related initiatives

CareerConneCT vs. Good Jobs Challenge

CareerConneCT

Foster Collaboration to Deliver Statewide Workforce Training Solutions

Develop Statewide Recruitment & Assessment Portal

Facilitate Collaboration of Organizations on Statewide Programming

Deliver **Statewide Sectoral Training** to Individuals Most Affected by COVID-19

Focus on In-Demand Occupations and Industries

Deploy State Bonding Dollars on Various Related Initiatives

Good Jobs Challenge

Strengthen RSPs to Inform and Support Regional Workforce Training Needs

Provide Support to Develop Regional Sector Partnerships (RSPs)

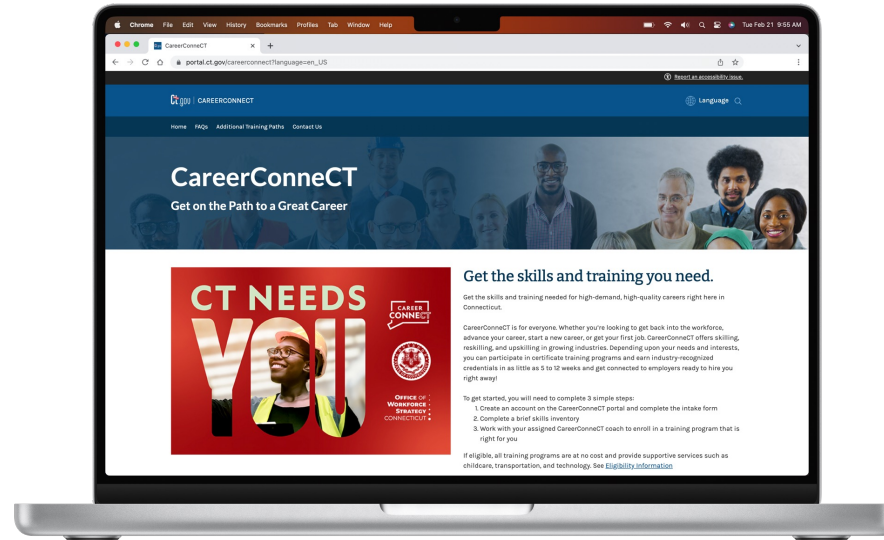
Support RSP Objectives, Goals, and Needs

Focus on In-Demand Occupations and Industries

Develop / Update Curriculum & Training Models

Deliver **Regional Sector Based Training**

CareerConneCT Scorecard



Virtual front door - ct.gov/CareerConneCT

\$70M in state ARPA funds: 5 Workforce Investment Boards & 12 Community-Based Organizations

Program Goal: **6,000** unemployed and underemployed individuals trained and placed in good jobs by June 2025

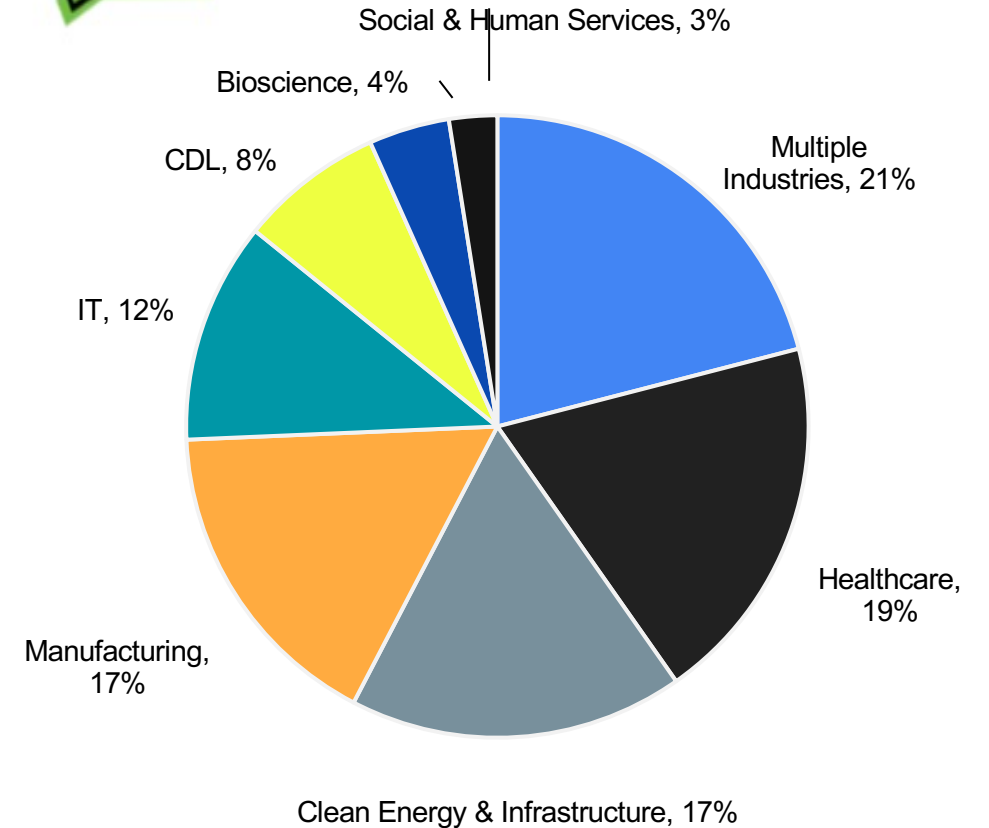
Year 1 Goal: **2,000** unemployed and underemployed individuals trained and placed in good jobs by December 2023

Portal Launch: November 2022

CareerConneCT Scorecard as of 3/21/23



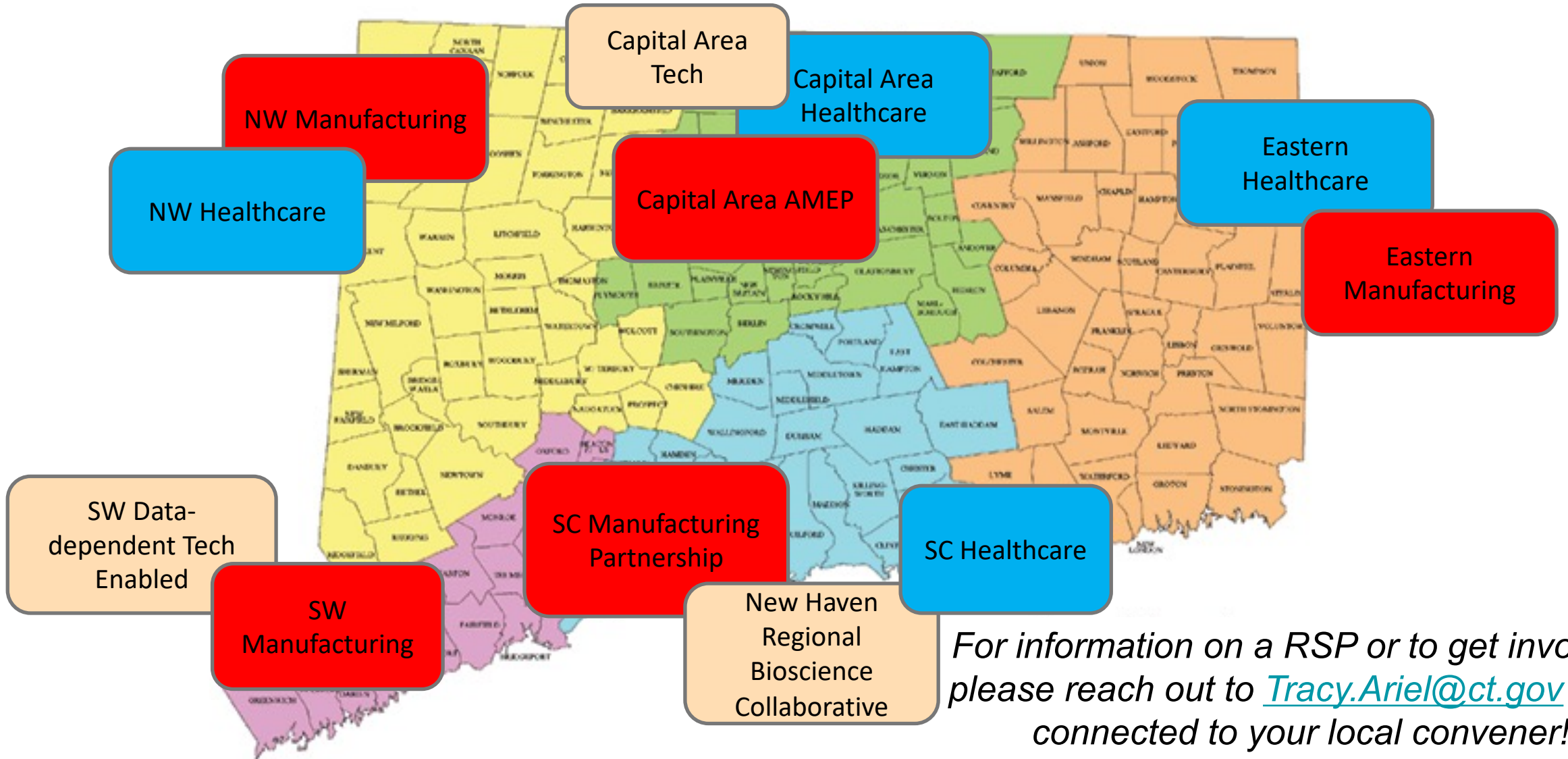
4,615 End users	3,436 Onboarded Users	39% Of onboarded users are eligible for training																					
2,027 Skills assessments taken	1,372 Identified and referred to WDB/CBO for training ¹	77% Average skills inventory score																					
<table border="1"> <thead> <tr> <th>Org.</th> <th># of Skills Inventory Submissions</th> <th>Average Skills Inventory Score</th> </tr> </thead> <tbody> <tr> <td>CWP</td> <td>758</td> <td>79%</td> </tr> <tr> <td>EWIB</td> <td>192</td> <td>80%</td> </tr> <tr> <td>NRWIB</td> <td>144</td> <td>81%</td> </tr> <tr> <td>OWS</td> <td>386</td> <td>73%</td> </tr> <tr> <td>TWP</td> <td>440</td> <td>76%</td> </tr> <tr> <td>WA</td> <td>107</td> <td>80%</td> </tr> </tbody> </table>	Org.	# of Skills Inventory Submissions	Average Skills Inventory Score	CWP	758	79%	EWIB	192	80%	NRWIB	144	81%	OWS	386	73%	TWP	440	76%	WA	107	80%	68% of participants passed the skills inventory	
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Footnotes

¹How many people passed the skills inventory. This assumes that the CareerConneCT grantees are strictly enforcing the skills inventory before enrolling a participant in training

Good Jobs Challenge & CT's Regional Sector Partnerships



For information on a RSP or to get involved, please reach out to Tracy.Ariel@ct.gov to be connected to your local convener!

Youth Focused Programs Good Jobs Challenge

- Eastern Healthcare RSP was awarded **\$2,156,297** to develop the Youth Healthcare Pipeline Initiative (YHPI) which will train **216 participants** over three years.
- Northwestern Healthcare RSP was awarded **\$2,358,644** to promote diversity and equity, enhance training curriculum, and deliver entry level training for underrepresented youth -**225 participants** over three years.
- Eastern Manufacturing RSP awarded **\$1,946,592** to expand the Youth Manufacturing Pipeline Initiative (YMPI) that will train **420 participants** over three years.

Workforce Summit: Building an Inclusive Economy

GWC Business Meeting: 7:30 am – 8:30 am

Date: Friday, April 21st, from 9:00 am – 4:00 pm (Registration begins at 8:00 am)

Location: The Aqua Turf Club, Plantsville, CT

Hosts: CBIA, CSCU, ReadyCT, SVP, OWS

Registration: \$180 standard rate; \$75 educator/CBO; \$40 student rate

*Sponsorships available upon request

Featured Speakers:

- Governor Ned Lamont
- Byron Auguste, Co-Founder and CEO, Opportunity@Work
- Tameshia Bridges Mansfield, Vice President, Workforce Innovation, Jobs for the Future



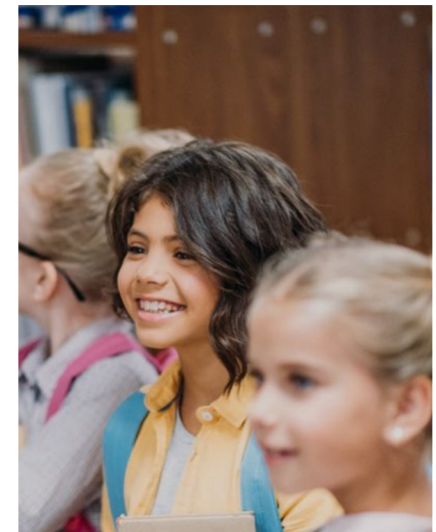


ReadyCT

EDUCATION – THE ENGINE OF OPPORTUNITY



CCAT Manufacturing Summit for Educators April 5, 2023



Academic Excellence • Access • Inspired Learning



Mission: to advance academic excellence and career-connected learning for all public school students in Connecticut through collaboration with business, civic, and education leaders

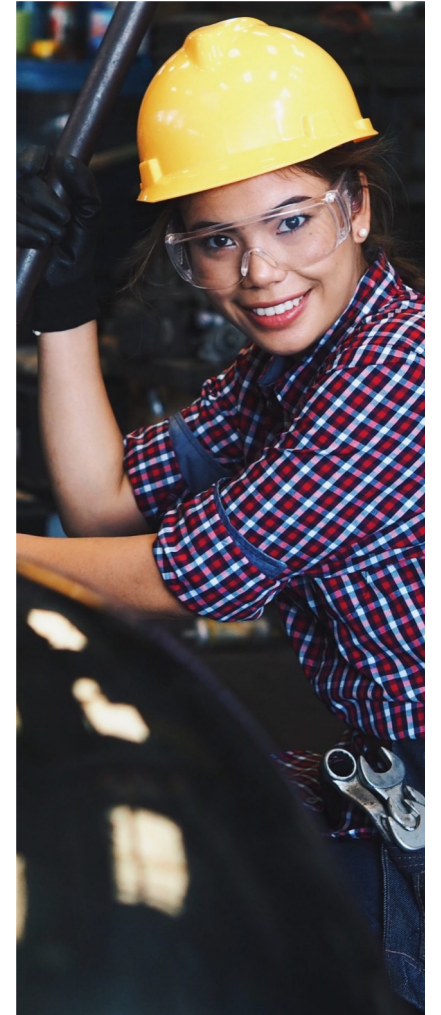
ReadyCT is a 501(c)3 organization that allows business leaders, nonprofits, and other key stakeholders to develop and support policy changes and programming that improve public education throughout Connecticut.

ReadyCT works to:

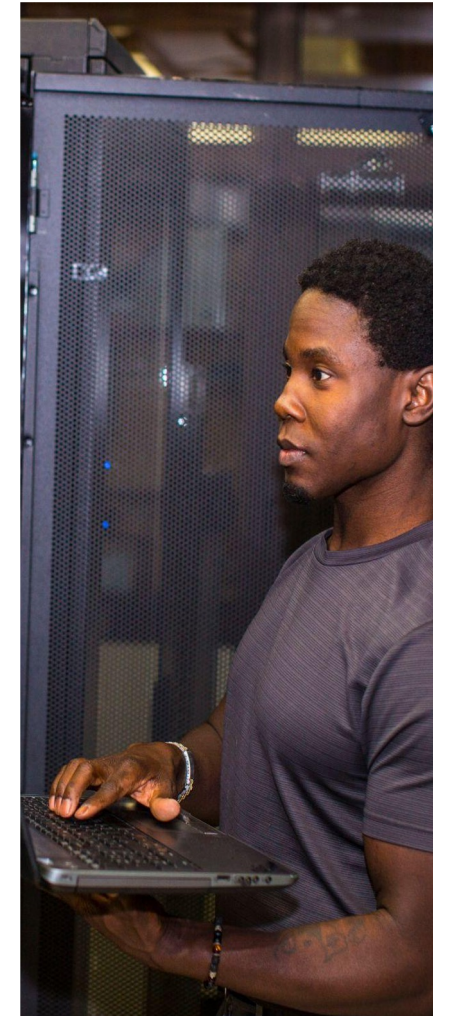
- create relevant career **pathway** and **work-based learning opportunities** for students
- design and deliver **promising practices** convenings and related resources
- advocate for **policies that narrow Connecticut's achievement gap** between low-income and non-low-income public school students
- raise the **public profile** of key educational issues



- [Career Pathway Programming](#), featuring embedded ReadyCT team members working in schools/districts with educators to:
 - design and deliver career readiness instruction and work-based learning opportunities (e.g., guest speaking, worksite tours, internships) that complement classroom instruction;
 - recruit businesses to serve on Industry Advisory Boards in ways that bring the business voice into the school AND provide work-based learning opportunities;
 - engage students with programming.
- [MFGSkillsCT.com](#), featuring:
 - an online repository of information that connects K-12 manufacturing education programs to manufacturers;
 - resources/best practices for a range of audiences – schools, manufacturers, students, and parents.
- The [Manufacturing Careers Roadshow '23](#), featuring:
 - four stops -- Hamden, Bridgeport, Danbury, and Norwich;
 - opportunities for manufacturers to meet 'n greet with students and share the modern, high-tech, and exciting world of manufacturing.



- [Student 5.0](#), where high school seniors and recent graduates without a postsecondary plan work with a dedicated career launch coordinator to:
 - research high-growth/high-demand careers in CT, including manufacturing;
 - explore training and college programs;
 - prepare for career success with interview prep, resume writing, personal budgeting, and more.
- [Good Jobs Challenge, Eastern CT](#), led by EWIB and featuring:
 - enhancement and expansion of the Youth Manufacturing Pipeline Initiative (YMPI);
 - high-quality research into how and where students can get hands-on learning, [including this new resource on readyct.org](https://www.readyct.org) with info on how students under 18 can intern with manufacturers;
 - the addition of a youth healthcare pipeline initiative in the region.



Support of this work promotes diversity, equity, and inclusion and leads to a robust, productive workforce that positions business and industry for continued growth and success.

We look forward to exploring the possibilities of what we can do together for the students of Connecticut.

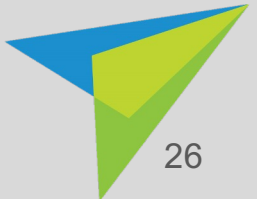
CONTACT INFO:

Shannon Marimón, Executive Director, ReadyCT -- shannon.marimon@readyCT.org



readyCT.org

@ReadyCTEd



Panelist Q&A

**Regional Sector Partnerships
breakout session share
and Q&A**

Resources for Educators, Students and Parents



Connecticut State Department of Education Career Technical Education Unit (CTE)

Contact	Perkins Program Manager	Connecticut Career Clusters
<p>Ms. Kyllie Freeman Education Consultant CT State Director of CTE Kyllie.Freeman@ct.gov</p>	<ul style="list-style-type: none"> • EastConn • EdAdvance 	<ul style="list-style-type: none"> • Education and Training • Hospitality and Tourism • Information Technology
<p>Mrs. Suzanne Loud Education Consultant CTE Unit Coordinator Suzanne.Loud@ct.gov</p>	<ul style="list-style-type: none"> • ACES • CES 	<ul style="list-style-type: none"> • Business Management and Administration • Finance • Health Science • Marketing
<p>Mr. Harold Mackin Education Consultant Harold.Mackin@ct.gov</p>	<ul style="list-style-type: none"> • CREC • Learn 	<ul style="list-style-type: none"> • Architecture and Construction • Agriculture, Food and Natural Resources • Manufacturing • STEM • Transportation, Distribution and Logistics





- This **2 day summertime professional development workshop** is designed to acquaint science teachers with real-life applications of STEM skills in today's manufacturing environment. Learn about current demands in the manufacturing industry, tour local companies, and hear from Industry leaders. **Anticipated late July 2023.**
- **The Institute for Real-World Education and Curriculum Advancement (IRWECA)** is a partnership between the Innovation Hub at Southern Connecticut State University and the Connecticut State Department of Education. It is a Connecticut-wide initiative bringing education teams together with industry professionals to collaboratively generate interdisciplinary curriculum modules during the regular academic year. This is a free and flexible program designed to accommodate the needs of individual teams.

Contact Info:

Peter Dimoulas

dimoulasp1@southernct.edu

Connecticut Community Colleges and Universities offer Summer Workshops for Educators

CT Science Center – Ongoing Teacher Resources and Workshops: visit <https://ctsciencecenter.org/mandell-workshop/>

New England Air Museum – Student Field Trips, Virtual Field Trips and Resources: <https://neam.org/pages/education>

Save the date - 11/1 Aerospace Components Manufacturers' Aerospace Alley Career Fair at CT Convention Center

MAKER

[Our Mission](#) [MAKERS](#) [Companies](#) [Educators](#) [Internships](#)

MULTIPLIERS
Powered by CCAT

Manufacturing Champions Spreading
Awareness of Careers in Manufacturing &
Inspiring the Next Gen

MAKERMultipliers.com

ECAMP

Program of Studies

1
Year

2 Semesters

21
Credi
ts

- BMM100: Introduction to Manufacturing
- BMM 222: Technical Drawing and Specifications
- BMM 175: CNC Machining
- BMM 210: Lean Manufacturing Prin
- BMM 224: Metrology and Calibration
- BMM 240: CAM I
- BMM 140: Prin. of Manuf. Math*

*Credit by Exam for BMM 140.

College of Technology (COT) Overview

CT State Colleges & Universities and College of Technology

- Established in 1992 under Connecticut Public Act 92-126 and includes all twelve Connecticut community colleges, ten public and private partner universities, and the Connecticut Technical & Career Education System.
- Led by the College of Technology (COT) State Director and governed by the COT Site Coordinators Council
- Two core pathway programs of the COT are Engineering Science and Technology Studies, which includes advanced manufacturing programs
 - Programs include:
 - Engineering Science
 - Additive Manufacturing
 - Data Science (Google and AWS)
 - Computer Aided Drafting (CAD)
 - Artificial Intelligence (Intel)
 - Cybersecurity
 - Mechatronics/Robotics/Automation
 - Welding & Fabrication Technology
 - Electronics Technology & Electro-Mechanical Maintenance
 - Drone Technology
 - Advanced Manufacturing
- Provides a Stackable Credential Model, which is driven by industry and workforce needs
- Programs include microcredentials, certificates, and A.S. Degrees, and B.S. degrees
- Prepare students for immediate employment as well as seamless transfer to four-year colleges/universities as juniors
- Addresses the recruitment and retention of underrepresented populations
- Programs are added and modified in response to statewide/regional industry needs
- Programs address Industry 4.0
- Works with Office of Workforce Strategies and Governor's Workforce Council and Regional Sector Partnerships to meet workforce development goals and objectives
- Participates in industry association initiatives (e.g. CT Manufacturers' Collaborative) and educational advisory meetings (e.g. CT Technical Education & Career System)



Dr. Karen Wosczyzna-Birch
State Director, College of Technology and
Executive Director & Principal Investigator,
National Center for Next Generation
Manufacturing
kwosczyzna-birch@commnet.edu



Advanced Manufacturing Technology Programs at CT State Community College



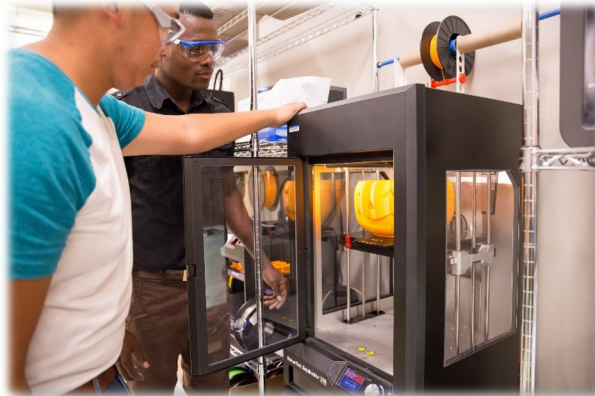
Campuses:

- Asnuntuck
- Capital
- Gateway
- Housatonic
- Naugatuck
- Valley
- Manchester
- Middlesex
- Northwestern CT
- Norwalk
- Quinebaug
- Three Rivers
- Tunxis

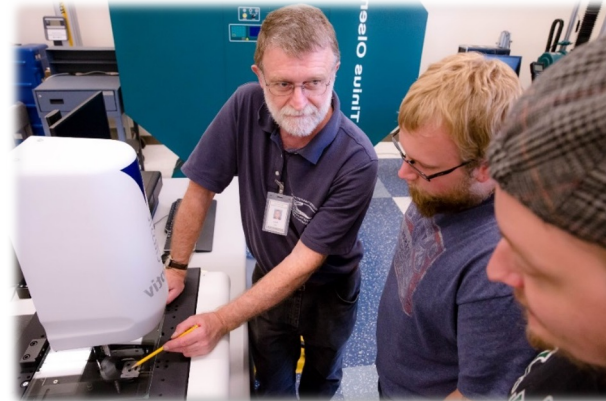


Certificate and A.S. Degree programs

Additive Manufacturing



Metrology



CNC Machining



For more information on our programs:

<https://www.ct.edu/makeithere>

National Center for Next Generation Manufacturing

- Awarded in 2021– only National Science Foundation (NSF) Advanced Technological Education (ATE) National Center for manufacturing and builds on four previous rounds of funding beginning in 2004 for Regional Center for Next Gen Mfg and transition to Resource Center
- Lead/Partner institutions:
 - Connecticut College of Technology, administered by Tunxis Community College (CT) – Karen Wosczyzna-Birch, PI
 - College of the Canyons (CA) - Tim Baber, Co-PI
 - Columbus State Community College (OH) – Chris Dennis, Co-PI
 - Central Community College (NE) - Jerry Muller, Co-PI
- Additional Partners:
 - Florida Advanced Technological Education Center (FL) – Dr. Marilyn Barger, Senior Education Advisor
 - National Convergence Technology Center (TX) - Dr. Ann Beheler, PI
 - EdAdvance (CT)
 - Industry
 - Comprehensive & Technical High Schools
 - Associations, Gov't Agencies, and Non-Profits
 - Manufacturing Centers & ATE Projects
- **NCNGM goals focus on Industry 4.0 the following at the national level:**
 - Developing a national manufacturing leadership network
 - Advanced manufacturing education repository
 - Faculty and instructor professional development
 - Improving the image of advanced manufacturing/developing a diverse workforce



Dr. Karen Wosczyzna-Birch
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Wendy Robicheau
Assistant Director National Center for Next
Generation Manufacturing
wrobicheau@txcc.commnet.edu



[CT State Dept of Education CTE Resources](#) for additional state provided resources

[MFGSkillsCT.com](#) ReadyCT platform, launched 2022

[CTcreates.org](#) CCAT platform – educator, student, parent resources including company videos and past webinars

[CTMfgMonth.com](#) CCAT powered list of Manufacturing Month and School year round Manufacturing pathways events

Thank you

For more information, please contact:

Eileen Candels

Director of Partnerships

ecandels@ccat.us

Connect with us



ccat.us/events



@CTCenterforAdvancedTech



@ctcenterforadvancedtech



@CCAT



@CCATInc