

Manufacturing Technology Working Group

The background of the slide is a dark blue field filled with numerous glowing blue circles of varying sizes, creating a bokeh effect. Overlaid on this are intricate, glowing blue lines that resemble a complex circuit board or a network diagram. These lines start from the left side and branch out towards the right, connecting various points that look like nodes or data centers.

Substitute Senate Bill No. 1021
Special Act No 21-24

Meeting 08
Dec 08, 2021

Agenda

- I. Welcome
- II. Announcements / Roundtable
 - Review schedule for i4.0 Provider features
- III. Provider Spotlights
 - CSCU / NextGen Mfg Center - Dr. Karen Wosczyzna-Birch
 - Small Business Association – Catherine Marx
- IV. Workstream Breakouts
 - VSM: Value Stream Mapping
 - Outreach & Resources
- V. Adjourn



Next Meeting: Wed, Dec 15 @ 11a
Cadence: *weekly* December 8 & 15

Service Provider Feature Schedule



Dec 15: Value Stream Mapping Outbrief

Jan 6: Central Connecticut State University

Jan 20: Manufacturing Innovation Fund

Feb 3: Yale University

Feb 17: Connecticut Manufacturing Collaborative

Mar 3: Central Connecticut Chambers of Commerce



Fostering partnerships and pathways to educate the advanced manufacturing workforce.



Services Provided:

Researching
Developing
Training
Marketing
Consulting
Deploying
☒ All of the Above



Statewide Industry-Driven Curriculum

- College of Technology (COT) Site Coordinators Council
- Stackable Credential Model-driven by industry and workforce
- Career Pathways
- Microcredentials, Certificates, A.S. Degrees through Community Colleges with partnerships with secondary schools
- Oversees Community College Engineering and Technology Curriculum including all Manufacturing certificates and degrees
- Prepares Students for Immediate Employment as well as seamless transfer to four-year colleges/universities as juniors
- Address the recruitment and retention of underrepresented populations
- Programs include:
 - Mechatronics
 - Machine Technology
 - Welding,
 - Electronics Technology
 - Electro-Mechanical Maintenance
- Programs are added and modified in response to industry needs

CT State Colleges & Universities and College of Technology

- Working with Office of Workforce Strategies and Governor's Workforce Council and participating in Regional Sector Partnerships to meet their workforce development goals and objectives
- Regular participation in industry association initiatives (e.g. CT Manufacturers' Collaborative) and educational advisory meetings (e.g. CT Technical Education & Career System)
- Developing strategic plan for community college manufacturing programs to address the need manufacturing employees



Fostering partnerships and pathways to educate the advanced manufacturing workforce.



Microcredentials

- Rapidly Implementing Industry 4.0 Microcredentials
 - Google, Amazon, Intel, and IBM
- Non-credit and Credit Programs
- Addressing Needs of Industry, Incumbent Workers, the Unemployed, and the Future Workforce
- Partnerships with GE Appliance, New England Board of Higher Education, Business-Higher Education Forum, and Stanley Black & Decker

National Science Foundation Funding

- Recognizes infrastructure of COT as a national model
- First funded in 2004 to establish the Regional Center for Next Generation Manufacturing
- Four rounds of funding including award in 2018 to create a National Resource Center for Next Generation Manufacturing
- In 2021, NSF awarded the COT \$7.5M for a National Center for Next Generation Manufacturing – Focus on Industry 4.0
- Focus on professional development for educators and counselors and outreach programs for high school and community college students



National Center for Next Generation Manufacturing

- 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
- Partners:
 - College of the Canyons (CA), Columbus State CC (OH), Central CC (NE), Indian River State College (FL)
 - Manufacturing Extension Partnerships (MEPS)
 - Manufacturing USA Institutes
 - Industry - including professional associations and organizations



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Contact:

Dr. Karen Wosczyzna-Birch

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☒ All of the Above



U.S. Small Business
Administration

The SBA works to ignite change and spark action so small businesses can
confidently **START • GROW • EXPAND • RECOVER**

Resource Partner Network

Mentoring, counseling & training to help in all stages of the business life cycle

- Small Business Development Center
- SCORE (6 CT Chapters)
- Women's Business Center – University of Hartford
- Women's Business Development Center (4 CT locations)
- Veterans Business Outreach Center- (Regional Providence, RI)



Guaranteed Loans & Microloans

- SBA Lenders (7a, 504, SBA Express, CAPLines)
- Microlenders & Community Advantage Program



Export Assistance & Export Lending

- State Trade Expansion Program (STEP)
- Export Express, Export Working Capital, International Trade Loans



Government Contracting

- System for Award Management (SAM.GOV)
- 8 (a) Business Development Program
- All Small Mentor-Protégé Program
- HUBZone
- Certification Programs



Disaster Assistance

- Presidential Declaration IDA – Connecticut #17258
- Federal Relief (PPP, SVOG, RRF, COVID EIDL)



and MORE.... Surety Bonds, SBIR, STTR, Advocacy, Ombudsman

Services Provided:

- ☒ Resource Partner Network
- ☒ Guaranteed Loans & Microloans
- ☒ Export Assistance & Export Lending
- ☒ Government Contracting
- ☒ Disaster Assistance

Workstreams

VSM: Value Stream Mapping

Map out current state value stream of provider network



Resources

Focus on SBIR / STTR; include other grant opportunities & resources



Yale

Outreach

Awareness of manufacturers to provider network



Ecosystem Mapping

Cataloging comprehensive profiles of providers
(Deliverable 1)



Partner w/ Manufacturing Innovation Fund Initiative

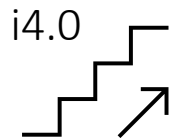
Outreach


Discuss

ENGAGE.

EDUCATE.

ENABLE.



 entry-level

Develop

Structured process of education:

CT case studies of how i4.0 tech is used to solve a problem

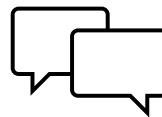
Who is doing this well?
State or Entity

What does a business need?
How to get there? Integration.
Best practices / case studies.

Decide



1 pager



unified message

Deploy

Communicate thru
Manufacturing Associations



Outcome of MTWG is to create a strategic plan.



Equipping early-stage companies and entrepreneurs with resources, guidance and networks to accelerate growth and success.

Services Provided:

Researching

☒ Developing

☒ Training

Marketing

☒ Consulting

☒ Deploying

Cultivating a network of public-private partnerships and acting as a catalyst, supporting entrepreneurs from ideation and growth to exit.



SBIR Resources

- Generating awareness and combatting lack of awareness of SBIR/STTR opportunities in CT
- Humanizing the process of navigating the federal funding landscape
- Pre- and post-award services
- Success stories



Other Resources



- Access to talent
- University partnerships
- Alternate sources of financing