

The Virginia i3 Regional Resilience Project
(through Innovation, Inclusiveness, & Industry Competitiveness):

Virginia Tech Center for Economic and Community Engagement
(with Virginia State University, Consortium Partner)

US Economic Development Administration University Center Award # ED21PHI3030015
Semi-Annual Progress Report, PY 1 (April 1, 2023– September 30,2023)

Introduction and Scope

Virginia Tech’s Center for Economic and Community Engagement (VTCECE), in partnership with Virginia State University (VSU), are working to strengthen regional resilience and innovation across eastern, western, and southern Virginia, while also helping to advance regional anchor institutions. The UC project will leverage public and private investment and resources to enhance the ability of the service regions to be globally competitive, strengthen connections between regions and resources, and advance economic diversification. We will conduct applied research, technical assistance, and dissemination activities to: support Regional Commercialization Strategies (25%) that strengthen innovation clusters; enhance Regional Talent Development (25%), advance Entrepreneurship (25%); and strengthen Regional Resilience (25%).

In each of these four programmatic arenas, our think-and-do model will support regional innovation clusters and economic ecosystem development and resilience by 1.) assisting companies to identify university resources addressing business needs and opportunities, 2.) assisting university faculty in identifying private sector demand for technologies and services, 3.) facilitating and supporting collaboration between companies, university faculty, and regional economic and local economic developers, 4.) conducting applied research and analysis projects, and 5.) designing, implementing, and/or assessing collaborative programs, initiatives, and planning between private, public, and non-profit stakeholders.

Assisting companies to identify university resources addressing business needs and opportunities.

- VTCECE worked with materials-related private sector companies in the New River Valley and Danville regions (such as MELD, Hollingsworth & Vose, Volvo, and Fastech) to connect them with faculty expertise and with the new consortium related to advanced materials.
- Virginia Tech Center for Community and Economic Engagement (VT CECE) continued to support Black BRAND (and black and minority-owned businesses across Hampton Roads) with data analytics and technical assistance on a regional data dashboard to better understand the factors that affect the economic and social progress of Black and minority businesses and residents in the area.
- Virginia State University (VSU) is continuing a collaboration with Raytheon around(a) controlled environment agriculture and (b) object recognition by unmanned vehicles.
- VTCECE helped VEDP respond to three confidential firm inquiries about university collaboration including companies in transportation, agriculture, and biotechnology.
- VSU is partnering with MITRE and MICRON on multiple cybersecurity related projects.
- VTCECE helped refer three materials firms to faculty in the College of Engineering.
- VSU collaborated with multiple regional companies to help provide interns in engineering and business-related disciplines.

- VTCECE continued work with a private sector data analytics firm and data analytics faculty to explore proof of concept activities around new service delivery models related to public sector/local government clients.

Assisting university faculty in identifying private sector demand for technologies and services

- VTCECE worked with faculty in agriculture and life sciences to explore new partnerships with agriculture technology-focused firms in monitoring, precision systems, and operations.
- VTCECE worked to engage faculty in clean energy, chemical engineering, and manufacturing systems to hydrogen related projects in Hampton Roads.
- VTCECE continued to support Virginia Tech Fralin Life Sciences Institute in leveraging their established STEM K-12 programming to connect with Hampton Roads based company Science Systems & Applications as well as local public-school systems to extend programming reach into new markets.
- VTCECE worked with faculty in crop sciences and aquaculture to explore enhanced programming for Controlled Environment Agriculture.
- VTCECE worked with faculty in Electrical and Computer Engineering to explore opportunities to address mismatch between locations of student production, university cleanrooms, and semiconductor production.
- VTCECE connected faculty in Computer Science with private sector companies in AI, machine learning, and software development.
- VTCECE continued assisting the VT AVP for Learning Systems Innovation with identifying experiential learning demand and needs from private sector.
- VTCECE also worked with College of Science faculty on identifying private sector demand for life sciences internships.

Facilitating and supporting collaboration between companies, university faculty, and regional economic and local economic developers

- With the New River Valley Regional Commission, VTCECE helped develop a consortium of public and private sector partners to successfully compete for a strategy development grant of \$450,000 under the EDA's Tech Hubs program. The project was one of just two Virginia winners among 31 tech hubs and 29 strategy development grant recipients nationwide. The project focuses on growing the advanced materials and additive manufacturing sectors in the New River Valley (Blacksburg MSA) and Danville regions. VTCECE has also worked with the New River Valley Regional Commission to submit a complementary proposal through the state's GO Virginia program. That project is under review.
- VTCECE continued work with the Virginia Tech Corporate Research Center to help lead a collaboration with private industry and community partners around clean energy. The group secured \$1.6 million in GO Virginia funds to develop a demonstration lab for the production of green hydrogen. Private sector firms and local governments are contributing \$5 million in investments. The Hampton Roads Planning District Commission is a project partner. This period, VTCECE has helped to organize and plan a project kick-off meeting.
- Virginia State University partnered with and supported the Richmond-Petersburg consortium's successful Tech Hubs submission as one of only 31 winning Tech Hubs. Focused on advanced pharmaceuticals manufacturing, the region will *have the opportunity to*

compete for \$40 million to \$70 million in implementation funding in the next phase of the Tech Hubs competition.

- VTCECE connected additional Virginia Tech faculty subject matter experts to Hampton Roads 757 Accelerate program cohort members based on industry/sector needs.
- VTCECE provided Black BRAND B-Force Accelerator cohort members connections to Virginia Tech faculty based on specific requests and needs of the cohort.
- VTCECE continued to conduct and organize regional familiarization meetings in Hampton Roads with local economic development departments, chambers of commerce, entrepreneurial non-profit support organizations, accelerator programs and angel networks to assist in connecting them with Virginia Tech faculty to support their needs.
- VSU faculty are continuing to collaborate with UVA and the Port of Virginia for transportation research.
- VTCECE continued service on the New River Valley Regional Commission's CEDS committee.
- VTCECE Director continued service on Onward NRV Board & Goodwill Industries of the Valley Board, serving as a VT point of contact for multiple resource and project inquiries.
- VTCECE has continued working with VERGE Technology Alliance (Roanoke-Blacksburg) by providing grant-writing and organizational development assistance.
- VTCECE continued its role in supporting the national EDA UC network, including support for Cohort activities at the UEDA Annual Meeting in Utah.

Conducting applied research and analysis projects

- For the Highland County EDA, VTCECE estimated the anticipated economic impact of a revitalized, operational, Highland Inn in Highland County, VA. The Central Shenandoah Planning District Commission relied in part on this study to *successfully secure a \$341,586 Virginia Brownfield Restoration and Economic Redevelopment Assistance Fund (VBAF) grant* to support the revitalization of the Highland Inn.
- During this period, VTCECE completed an Agritourism and Agribusiness Regional Economic Impact Study and Marketing Plan for West Piedmont Planning District Commission and the localities it serves.
- VTCECE completed a study to help local and regional economic developers better understand the CEA industry and enhance CEA-related activity per company attraction and expansion, support clusters, and start-ups. The study is on behalf of GO Virginia Region 3, and in partnership with the Institute for Advanced Learning and Research in Danville.
- VTCECE completed a feasibility study and recovery ecosystem assessment for the YWCA and Emory & Henry College, of a workforce and wellness center focused on Substance-Use Disorder Recovery population in southwest Virginia. The YWCA relied on this study to secure *a \$500,000 ARC INSPIRE award* to develop their wellness center's programs in Glade Spring. With the project, YWCA will focus on family resiliency and recovery-to-work supports, providing workshops and classes on mental and physical health and wellness, workplace skills and entrepreneurship, and other lifestyle and educational programs that encourage individuals and families to enhance their skills and develop healthy behaviors for successful futures
- VTCECE completed a target industry analysis for Hanover County.

- VTCECE completed a feasibility study for an export log steam treatment facility, to help advance less new technologies and sustainable practices in timber industry.
- VTCECE is conducting a multi-year analysis and evaluation of the existing programs and new activities for the Virginia Seafood AREC in Hampton, VA.
- VSU is helping the Petersburg Healthy Options Partnerships on a health equity dashboard.
- VSU is working with GENEDGE on a project to build a business calculator.
- VTCECE is continuing work providing labor market information, quarterly data snapshot reports, and on-call data requests on workforce and industry for LWDA I and II in Virginia.

Designing, implementing, and/or assessing collaborative programs, initiatives, and planning between private, public, and non-profit stakeholders

- VSU completed work with a VSU faculty/student team to develop and implement an iPhone app to serve the Virginia Farmer's Market Associate, a statewide advocacy organization for Farmer's Markets and vendors.
- With the support of the Division of Research and Economic Development, VSU faculty have explored multiple partnership opportunities with the Commonwealth Center for Advanced Manufacturing (CCAM) around the development of technology for controlled environment agriculture and training programs based around the technology.
- VTCECE continued work with a non-profit, St. Paul's College 4 Life – transitioning into the St. Paul's Leadership Institute. The group was formed after the closing of St. Paul's College, an HBCU in Brunswick County Virginia. VTCECE is leading a group of VT faculty in the Institute for Policy and Governance and in the Pamplin College of Business to perform a competitive analysis, a strategy road map, a community listening or story-sharing project, and a business and financial plan to serve as a guide for the organization's long-term sustainability. Undergirding this work is a concern for community healing around the wounds related to longstanding racial and economic divides, including the closing of St. Paul's College.
- VTCECE continues to provide staff support to the Region 2 GO Virginia Council advancing regional economic development in the Lynchburg, Roanoke, and New River Valley regions, and helping administer this state-funded initiative in this part of the state.
- VTCECE also helps lead a Regional Internship Collaborative, in the Region 2 footprint (Lynchburg, Roanoke, and New River Valley areas), a project supported by the State Council of Higher Education in Virginia to better align and enhance internship opportunities between higher education and the private sector.

Progress and Barriers

During the period, we made significant progress on this project. We continue to strengthen our partnership with Virginia State University, including engagement in the national EDA UC cohort. Our projects and work has led to successful funding awards from EDA Tech Hubs, GO Virginia, ARC, and other sources. We continue to be very involved with convening and assisting collaborative teams to explore and pursue funding for new industry opportunities. Our project-based work is also very active with new projects beginning across the state. At this time, we face no significant barriers to our progress. However, we do have meetings scheduled with VSU to discuss enhanced partnership activities and have a work plan to better engage some of the DDs/PDCS that we have not worked as closely with over the project to date.