BIC Quarterly

JULY 2022 Volume 1, Issue 2

WELCOME TO THE JULY ISSUE OF THE BIC QUARTERLY

We created this quarterly newsletter specifically for you, our key stakeholders. It is designed to compliment the bi-weekly e-updates that our entire community receives and offer a deeper dive into the three pillars of our mission and goals: **LEARN, INNOVATE,** and **COMMUNITY.**

We have so much to share with you! Activity at the BIC has been non-stop over the last three months...meetings, events, student tours, workshops, and our very first annual BIC-NIC! Read on!

Let us know what you think of this issue...we appreciate feedback. If there is anything you'd like to see or if you'd like to contribute something to future issues, please reach out!

Sincerely,

Allison Mikaniewicz, Marketing Coordinator

GROWING AN INCLUSIVE DIGITAL AND TECH-ENABLED ECONOMY IN THE BERKSHIRES

by Ben Lamb, Director of Economic Development, 1Berkshire



The Berkshires has long been a hub of innovation and ingenuity, from 19th-century textile manufacturing to the era of multinational conglomerates, to the garage incubators and inspired entrepreneurs carving out the next era of industry, and everywhere in between. Whether it's our inherent scrappy "go-getter" mentality, our history of industry, or our tendency to seek collaboration for collective impact, we continue to iterate, activate, and inspire amazing things.

Over the course of the last two years in the midst of the pandemic, a renewed focus and energy coalesced around the potential impact of an expansion of technical industry in the Berkshires; we wondered how global ideas, worldrenowned thought leaders, and our regional appetite for innovation could be leveraged to improve our economy. This ideation led to the creation of the Tech Impact Collaborative, a joint venture of 1Berkshire, the Berkshire Innovation Center, and Osher Lifelong Learning Institute at Berkshire Community College, which began convening in 2020. Our efforts began as a forum for powerful panels and speakers to dig into the concepts of cutting-edge tech in a rural context, but quickly grew into a mission the direct, data-informed, intentional, and aggressive growth of an inclusive digital and tech-enabled economy in the Berkshires. This is admittedly a significant undertaking, but it is necessary in the interconnected landscape in which we will build the jobs of the future.

We took the leap. Marshaling our resources, the Collaborative launched into working with the Center on Rural Innovation (CORI) to complete a comprehensive digital ecosystem assessment and strategic planning process.

This reinforced many assumptions about the region's digital economy, but also illustrated the reality of what could be: the Berkshires can, and will, be a rural innovation hub if we all do our part.

Whether it's supporting remote workers who need 5 gigabit internet service, filling the "missing middle" in our tech entrepreneurship landscape, building physical nodes throughout the county to facilitate innovation, or creating supportive networks and investment structures, there is a role for everyone to play. This work will curate best practices sourced from dozens of peer communities across the nation. It will hopefully include a deep bench of investment from state and federal government and the private sectors. It will result in workforce training and upskilling that prepares individuals in all industries for the high-growth potential that tech-enabled enterprises could afford them. It will raise up our underserved populations so that BIPOC, women, LGBT and people of other demographics underrepresented in tech have a vital community with which to engage.

We know we have a breadth of unique assets. We understand what it means to fight uphill to make the case for something that will take years to accomplish. We appreciate that we may be planting the seeds for a tree that won't fruit until we are out of the picture. But we are doing this, and as a region, a community, and a rural economic center of massive growth opportunity, we look forward to collaborating with you.



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BIC Newletter thanks to the support of:

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Find Your Next Challenge



LEARN



B[E]TA students visit Lenco Armored Vehicles (above) and Applied Life Sciences Center at UMass Amherst (below)



BETA Summer 2022 Program July 5 - August 12

The B[E]TA summer program is in full swing. This 6-week program is connecting students with local businesses and engaging them in technologies offered at the BIC, while they explore hi-impact ways of working; paving the way to innovation, education, and vocation.

Program Underwriters



Community Sponsors













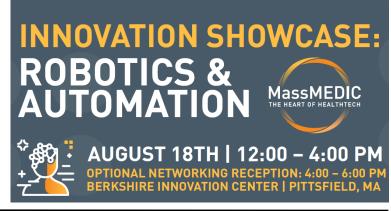


David Rosenthal

UPCOMING EVENT

August 18, 2022

Join MassMEDIC and the MedTech Association at the Berkshire Innovation Center on Thursday, August 18th for a half-day program where you'll have a chance to learn about the robotics and automation technology of tomorrow and develop partnerships to bring it to market today. The \$100 registration fee includes lunch, program, snacks and drinks at the reception. MassMEDIC and BIC members can save \$25 with code "25OFF" at checkout. Students can attend for \$25 with promo code "STUDENT25". Register: business.massmedic.com/events



USING COMPUTATIONAL DESIGN WITH ADDITIVE MANUFACTURING WORKSHOP





AUTODESK

The Berkshire Innovation Center, in partnership with the Massachusetts Institute of Technology and Autodesk, hosted this all-day workshop on Tuesday, June 28th. The participants learned the fundamentals of computational design and additive manufacturing through lectures and hands-on activities.



PROFILES IN ENTREPRENEURSHIP

A. John Hart Associate Professor at MIT

A. John Hart was one of the lecturers at our recent workshop: Using Computational Design with Additive Manufacturing.

John Hart is an Associate Professor of Mechanical Engineering, Director of the Center for Additive and Digital Advanced Production Technologies, and Director of the Laboratory for Manufacturing and Productivity, at the Massachusetts Institute of Technology (MIT). He also leads a research group at MIT, the Mechanosynthesis Group, focused on accelerating the science and technology of production via advancements in additive manufacturing, nanostructured materials, and precision machine design.

In 2017 he received the MIT Ruth and Joel Spira Award for Distinguished Teaching in Mechanical Engineering and in 2018 received the MIT Keenan Award for Innovation in Undergraduate Education. John has co-authored more than 175 journal publications, is a co-inventor on more than 50 pending or issued patents.

In addition to all of his academic achievements, John is a co-founder of startup companies Desktop Metal and VulcanForms, and a Board Member of Carpenter Technology Corporation.

NOTES FROM THE PROTOTYPING LAB



GENERAL DYNAMICS MISSION SYSTEMS, THE BIC, AND PITTSFIELD'S JULY 4TH PARADE: 'MOST OUTSTANDING' PARTNERSHIP

General Dynamics Mission Systems approached the BIC for help designing this year's 4th of July parade float. Using our laser cutter, we made large acrylic and foam gears which were decorated and mounted to a geartrain on the float using 3D printed parts designed and made at the BIC.



We also printed a large - 24" wide - housing for the turret mounted water cannon, which our very own Tim Butterworth, commanded from the hot seat of the float's Littoral Combat Ship, winning 'Most Outstanding' float at the year's parade.

FOR INFORMATION ON THE USE OF EQUIPMENT AT THE BIC,
CONTACT TIM BUTTERWORTH - TIM@THE-BIC.ORG



The BIC Manufacturing Academy will be an industry-led training collaborative designed to address persistent challenges facing the manufacturing economy in the Berkshire region by closing the gap between local supply chain capabilities and the needs of larger manufacturers through ongoing education, training, and technology assistance. The BIC will host and manage the Academy. MIT's Initiative for Knowledge and Innovation in Manufacturing and the BIC's local academic and industry partners will develop curricula and provide training expertise. General Dynamics will be the lead industry partner.



GENERAL DYNAMICS
Mission Systems







BIC BY THE NUMBERS

January - July 2022



Member company visits to the BIC



Number of in-person meetings/events held at the BIC



Number of people in the building (includes 316 students and 255 educators)

COMMUNITY

BERKSHIRE COMMUNITY COLLEGE'S NEW ADVANCED MANUFACTURING TRANSITION PROGRAM

by Jesse Cohen, BIC Contributing Writer



As BIC partners know, there is significant demand in the area for technicians with the skills to staff the high-tech factory floors of today. At the same time, there are many in the Berkshires looking to enter the workforce or make a career change, but who may not be aware of the advantages of the advanced manufacturing sector or believe themselves unable to acquire the necessary skills quickly and affordably. BCC's new Advanced Manufacturing Transition program is bridging that gap.

Berkshire Community College is using funding from the American Rescue Plan, passed last year as part of the federal COVID response, to offer this one-year certificate program at low or even no cost. This fully in-person program offers the skills needed for full-time work as an Advanced Manufacturing Technician, and students can also continue for an additional year to earn an associate's degree in Mechatronics. This opens the door for graduates to gain work experience and practical training as well as pursue the option of transferring their credits towards a four-year degree in an engineering discipline.

The program requires little math knowledge or previous experience and is designed to equip students with the skills necessary to work in manufacturing and adapt to new technologies. Students learn necessary computer skills as well as how to diagnose and fix mechanical problems on an assembly line. Someone who comes through this program will have mastered several common machines but also will be able and excited to learn to operate new machines. The program is designed for people with an aptitude for working with their hands and being creative, whether they be fresh out of high school or seeking a late career change, and teach them to apply those skills to advanced manufacturing. The curriculum covers all the necessary skills from OSHA safety guidelines to soldering skills, and is designed to ensure graduates will have all the necessary skills to succeed as Advanced Manufacturing Technicians. It is a fully in-person program that utilizes BCC's new makerspace to offer hands-on, practical training, taught by distinguished Engineering faculty.

Deb Sarlin, Executive Director of Community Education and Workforce Development at BCC, is available for input or questions from local employers, as the program is intended to meet the particular needs of Berkshire companies. Contact Deb Sarlin at dsarlin@berkshirecc.edu or (413) 236-2107.

COMMUNITY SPOTLIGHT:

3 QUESTIONS FOR MASSHIRE BERKSHIRE WORKFORCE BOARD

The Berskhire Innovation Center sat down with Heather Boulger, Executive Directlor, to discuss workforce training initiatives.



Q. The Future Skills Roadshow held at the BIC in June 2022 was an overview of new funding opportunities. What was your takeaway from that event, why was it important, and what should manufacturers be doing?

A. The Future Skills Roadshow highlighted a variety of resources available for recruitment, retention and training that Massachusetts's employers can take advantage of. We were pleased with the turnout at the Roadshow and received great feedback. As a result, we have several training opportunities in the pipeline and we continue to follow up with employers to connect them to resources to help them find and retain quality workers. One of the biggest things manufactures can do is to stay connected with the MassHire Berkshire Workforce Board who works in collaboration with many organizations to assist with employment needs. MassHire can help with recruitment, retention, and filling the workforce pipelines and our services are free. We currently serve about 800 area employers across multiple industries.

Q. There is shortage of workers in many industries, especially manufacturing, and with many people looking to shift careers, how can we help them transition?

A. For those looking to change careers, the key is also to stay connected. The MassHire Berskhire Workforce Board, through the MassHire Berskhire Career Center, offers job fairs, job clubs, and trainings, including literacy and basic work skills courses. Services are provided at no-cost and can be provided both in-person and virtually. We serve about 3,000 adults annually with a 70% job placement rate and we have about 200 adults participate in our training programs which see about 75% job placement.

Q. In an effort to develop a pipeline of talent in the region, how do we make sure our area youth are aware of career opportunities and pathways that are available?

A. Youth are 100% of our future workforce and it's our mission to connect our young people with as many career readiness options as possible. The MassHire Berkshire Workforce Board's college and readiness initiative serves about 3,500 youth annually which works with middle/high school guidance counselors to identify career interests and develops programs such as internships, job shadowing, career fairs, and STEM fairs. We also implement a teacher externship program to connect local educators to area businesses so they can learn first hand about opportunities and use that knowledge to help shape their curriculum. MassHire also has a variety of pipeline programs, job clubs, and training to connect adults to on-the-job training and employment resources. We are grateful to the 350+ businesses that provide these pipeline activities to our residents.