

SUPPORTING COMMUNITY MEMBERS IN BRINGING BUSINESS IDEAS TO FRUITION

How the Black River Innovation Campus (BRIC) Actuator
Is Creating a Culture of Entrepreneurship in Rural Vermont

PRESENTED BY

Siegel Family Endowment

We are a foundation focused on understanding and
shaping the impact of technology on society.

About Siegel

Siegel Family Endowment employs an inquiry-driven approach to grantmaking that is informed by the scientific method and predicated on the belief that philanthropy is uniquely positioned to address some of the most pressing and complex issues facing society today. Our grantmaking strategy positions us to be society's risk capital. We support high quality work that will help us derive insights to timely questions and has high potential for future scale. Our focus is on organizations doing work at the intersection of learning, workforce, and infrastructure. We aim to help build a world in which all people have the tools, skills, and context necessary to engage meaningfully in a rapidly changing society. Siegel Family Endowment was founded in 2011 by David Siegel, co-founder and co-chairman of financial sciences company Two Sigma.

Our Focus on Equitable Innovation Economy

We believe that innovation—whether it is technologically or organizationally driven—can happen anywhere, in any industry, region, or community. However, the foundations that support innovation are not accessible to everyone. We're asking how to bring innovative capacity closer to those who are now left out and make the rewards of innovative ideas accessible to everyone. As such, our vision is to promote an equitable innovation economy, one that enables all people and their communities to achieve prosperity.

Community-Driven Innovation

Many communities have systems in place to generate growth: skilled workers, high quality universities, entrepreneurial spirit, quality of life, ample infrastructure, and a base of venture capital that can turn new ideas into profitable companies. However, not everyone within these communities participates in or benefits from rapidly growing, innovative sectors. Not all communities become high-performance hubs, and not every hub emerges organically. Creating more equitable innovation in these communities would mean changing the systems that support innovation, so that more people are included in, and benefit from, rapidly growing and innovating sectors.

ABOUT BRIC

The [Black River Innovation Campus \(BRIC\)](#) in Springfield, Vermont is the hub of an emerging tech ecosystem in the heart of Vermont's "Precision Valley," [named](#) for the engineering and design prowess in the machine tool industry that once dominated the area.

BRIC features a physical [co-working space](#) that offers support for emerging tech-related businesses including "coffee and bagels Wednesdays," a state of the art recording studio, conference rooms, an auditorium, and a 10G fiber connection—far faster than regions whose populations dwarf this rural community. BRIC also offers a business [incubator](#) that supports emerging entrepreneurs through training, partnerships, and access to early stage investment. BRIC works with governmental entities, nonprofits, businesses, and educational institutions to usher in a new era of innovation and sustainable growth in the Precision Valley and serves as a visible example of "placemaking" for Springfield's Downtown.

At the heart of these activities is a commitment to lifting up a once economically vibrant community that has struggled with the exit of manufacturing operations and jobs over the last four decades. BRIC does that through its focus on people and [commitment to inclusivity](#):

- **Tech entrepreneurs** compose [BRIC's Actuator](#), a program that features a homegrown business and lifestyle curriculum and that seeks to connect entrepreneurs with partners in the Springfield region who can advance their work.
- **BRIC community members** benefit from the water cooler conversations they have as members of BRIC's co-working space. Game nights, networking events, battle of the bands, and other gatherings strengthen social infrastructure in Springfield and the tech ecosystem that is being developed in the community.
- **Local institutions**—including institutions of higher learning and K-12 schools—partner with BRIC to develop opportunities for emerging tech entrepreneurs as well as creating programs to train students and area residents on skills needed to succeed in the 21st century economy.



LEFT: The historic Park Street School building, home of the Black River Innovation Campus; RIGHT: A group of entrepreneurs tours BRIC's headquarters at the Park Street School.



ABOUT GRANTEE

[The Black River Innovation Campus \(BRIC\)](#) is a nonprofit designed to empower, inspire, and support rural Vermont through technology and entrepreneurship. Among BRIC's signature projects is [Actuator](#), a free entrepreneurial technology incubator program designed to help aspiring entrepreneurs prepare business concepts for launch. The eight-week program helps entrepreneurs develop a business plan, workshop prototypes, and create a compelling pitch. Through a rigorous curriculum, mentorship, partnerships with local institutions, and in-person group activities, Actuator gives emerging entrepreneurs the skills they need to succeed in the long-term, as well as a community of support that will help their businesses flourish in rural Vermont. Actuator is helping to reinvigorate the economy of a region that has been beset by layoffs and industrial decline, and is charting a new future for the community.



KEY TAKEAWAYS

- ▶ **Entrepreneurship development programs that have an asset-focused, place-based approach can help build capacity and enrich communities.** Teaching entrepreneurial mindsets and skills by drawing on local resources—universities, mentors, infrastructure, and more—roots emerging businesses in the community and amplifies existing strengths.
- ▶ **Entrepreneurs must become active members of a community in order to leverage its assets effectively.** Incubators can build a deep sense of belonging by connecting entrepreneurs to people in the larger community, fostering connections among cohort members, and offering opportunities to become acquainted with the unique aspects of life in rural areas. This type of community-building is achieved through both coordinated curricula and informal relationship-building activities, and can take time to manifest meaningfully.
- ▶ **Entrepreneurs with the ability to make change within a community come from many different places.** It's important to leave no stone unturned when identifying emerging entrepreneurs—whether working through established partners, word-of-mouth, or in partnership with local institutions. It's equally important to articulate a clear policy of diversity and inclusion, and remove any obstacles to application: offering the program free-of-charge, establishing a lightweight application process, and looking for potential as much as a proven track record.

EXECUTIVE SUMMARY

BOB FLINT, VICE CHAIR OF BRIC'S BOARD OF DIRECTORS, compares participants in [BRIC's Actuator](#) to baby birds preparing to leave the nest. The program is designed to equip emerging entrepreneurs with the skills and resources necessary to take the spark of an idea from imagination to implementation. The process of building these ideas out to completion is designed to strengthen the community and establish the Springfield, Vermont, area as a hotbed of technological innovation and economic vitality.

Actuator is both general and specialized. On the one hand, it teaches the fundamentals of entrepreneurship, business planning, ideation, prototyping, and other nuts-and-bolts of business development—all concepts that are widely taught in business schools. On the other hand, Actuator is tightly tailored to the nuances of the population that it serves and the community in which it is situated. Classroom learning revolves around the specific ideas of the entrepreneurs in each cohort, and Actuator staff help cohort members utilize a wide range of well-matched local assets and partnerships including relationships with the

Vermont Manufacturing Collective and Norwich University's advanced computing experts. Actuator entrepreneurs can also draw on partnerships with nationally-recognized institutions such as NASA Goddard.

The program is designed with these specific regional assets in mind, and is structured in a way that's intended to strengthen the wider community in rural Vermont. Actuator highlights the local institutions and resources that make the region a good place to start a business, and provides cohort members with material resources unique to the area, such as access to the [BRIC co-working space](#) and a 10G network. Cohort members also explore the advantages and challenges of pursuing entrepreneurship in a rural location, while a lifestyle curriculum helps cohort members get acquainted with aspects of regular daily life in rural Vermont.

The ultimate goal is threefold: to help entrepreneurs become active, engaged members of the local community; to support entrepreneurs as they take their business ideas to the next level; and to strengthen the local economy and community.

CORE ELEMENTS: WHAT MAKES THE PROGRAM WORK?

LIKE MANY OTHER INCUBATORS, BRIC's Actuator program is designed to help entrepreneurs realize their vision, equipping them with the skills, resources, and connections to set them up for success. But unlike many other incubators, BRIC is also designed to cultivate and strengthen community—both within each cohort of entrepreneurs and across the larger region of rural Vermont. It does so in a variety of ways: by providing the physical and digital infrastructure to support emerging businesses; by nurturing connections between entrepreneurs and community members; by fostering relationships between entrepreneurs and partner institutions; and by creating a social and lifestyle ecosystem that helps all members of the larger community thrive.

ENRICHING LOCAL COMMUNITIES THROUGH AN ASSET-FOCUSED, PLACE-BASED APPROACH

MANY OF THE CONCEPTS that are taught through BRIC's Actuator program are drawn from leading business class curricula on entrepreneurship. Lessons include developing a business canvas, leveraging subject matter expertise, attracting external investments, and taking a well developed idea to market.

But BRIC's Actuator curriculum also offers a host of unique learning opportunities in addition to these familiar concepts. These opportunities are firmly rooted in the locale of rural Vermont and draw on local assets. Actuator's curriculum features events at a variety of local settings, from BRIC's co-working space, to local breweries and theaters. Further, the partnerships that the BRIC Actuator pursues are deeply rooted in local institutions and spaces, including institutions of higher learning. Even the mentors that BRIC leverages for Actuator have deep ties to the local community. Some mentors are based in the Springfield area, but even mentors that are based elsewhere have connections to the local community and want to help foster innovation in the Springfield area.

Marguerite Dibble, BRIC's former interim executive director explains that this asset-focused, place-based approach is intentional. "Actuator is really

about helping people answer two questions in the affirmative. First, can I have a company? And just as important, can I do it here?"

To that end, Actuator is designed to make the Springfield area attractive to emerging entrepreneurs, both as a liveable community and as a space that has resources that are well-suited to supporting innovation. BRIC's leaders have found that this pitch has become easier over the course of the COVID-19 pandemic as options for remote work and partnerships became more the norm.

BUILDING A SENSE OF BELONGING AMONG ENTREPRENEURS

ACTUATOR'S PLACE-BASED APPROACH also helps entrepreneurs forge a sense of community and belonging. Some participants come from the community of Springfield, while others are new to the region. For example, Actuator has accepted a number of Dartmouth College graduate students from around the world. However long their tenure in rural Vermont, participants in Actuator form a community.

The entrepreneurial curriculum stresses in-person, team-based learning activities, including weekly workshops with experts and mentors, and opportunities to receive feedback on draft business plans from other participants. Social events also provide opportunities for Actuator cohort members to forge deeper personal relationships with one another.

Dibble reflects, "We have a goal of not only creating companies,



New and existing entrepreneurs workshop business concepts at Actuator: Session Zero.

but really fostering a community mindset—a community of people who are excited to be here, and excited to embrace new opportunities.” Dibble says that Actuator achieves that goal in a number of ways. First, the curriculum stresses agility and relationship-building—two attributes that Dibble says are key features of a regional ethos that has developed in order to continually adapt to changing economic fortunes over the past decades. Actuator also teaches Vermont-specific skills that help participants feel welcome and help ease their transition into the community. Actuator’s lifestyle curriculum explores everything from putting on snow tires, to finding housing in the Springfield area, to cutting down on heating costs.

Dibble says that the central goal is to help “people see how they, as individuals, can thrive in rural communities. We want to help build companies and people that feel connected to the spaces they exist in.” There’s significant potential for carryover effects from this approach: future employment opportunities for community members, greater economic vibrancy in Springfield’s downtown,

and the entrepreneur’s agility and creativity in responding to community challenges. For BRIC, achieving those effects begins with social cohesion, a sense of belonging, and relationships that are deeply rooted in place.

CASTING A WIDE NET IN IDENTIFYING EMERGING ENTREPRENEURS

BRIC LEADERS BELIEVE that making emerging entrepreneurs feel at home in the Springfield area requires more than group bonding opportunities. It also requires making Actuator accessible and welcoming to all emerging entrepreneurs. Vin Fusca, BRIC’s executive director says, “Entrepreneurs come from many different places, and at BRIC we believe that the diversity of our Actuator cohorts contributes to the success and vibrancy of the community. Making Actuator a place where everyone feels welcome is an important goal for us.”

Caitlin Christiana, BRIC’s director of community and culture

BRIC ACTUATOR PARTICIPANT PROFILE

Will Jeffries

Founder and Architect
for Solutions, Blumenthal
Enterprises LLC



WILL JEFFRIES was no stranger to rural Vermont or to entrepreneurship when he first connected with BRIC’s Actuator program. Jeffries grew up on a small family farm where he says “there was a very entrepreneurial mindset, but also a lot of struggle.”

In his early twenties, Jeffries left the family farm behind to work first at a furniture factory and then as an assembly line welder at [Woodstock Soapstone Stoves](#). It was while he was working there that Jeffries realized his calling.

“I liked finding ways to do something better, or to put together resources that were being underutilized in the factory,” says Jeffries. “[The owner of the company] was the same way. He and I would often stay late and work on building prototypes, or thinking up ways that we could reuse material, or make a new product with it.”

Jeffries combined this hands-on learning experience with college studies, and eventually earned both associate’s and bachelor’s degrees in mechanical engineering. After having spent seven years working in engineering and product development, Jeffries joined the [Academic Research Commercialization Program \(ARC\)](#) at University of Vermont, an incubator designed to launch new entrepreneurial ventures and businesses commercializing innovative research from the University.

While working on ARC projects in the [Vermont Center for Emerging Technology](#), Jeffries noticed a flier for BRIC’s Actuator program on the wall. “It looked like a program that tied into exactly what we needed to do with this technology commercialization roadmap,” Jeffries recalls.

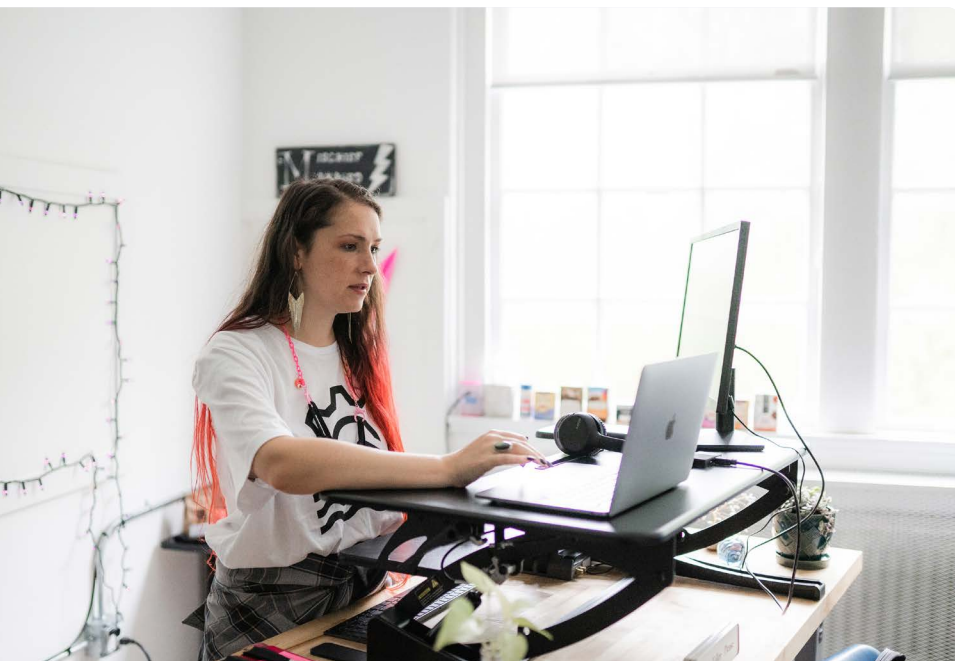
Jeffries joined the first cohort of BRIC’s Actuator with two goals: to build deep connections with advisors, mentors, and fellow entrepreneurs;

and to learn strategies for growing a business.

Jeffries says that Actuator was critical to achieving both of these objectives. Actuator’s curriculum was an important resource that helped colleagues at ARC accelerate the entrepreneurial development process. BRIC was also able to pick up the tab for small initial expenses—including travel, software, and business service subscriptions—that allowed Jeffries to hit the ground running with his business idea.

Actuator also helped Jeffries build strong connections with local organizations, business leaders, and institutions. “We really developed a connection with the community,” Jeffries says.

Jeffries now operates his own consulting business, providing his technical and entrepreneurial expertise to help businesses and innovators turn their visions into reality. In this work he continues to draw on connections with BRIC’s network, routinely referring clients and contacts to people he met through Actuator. He also continues to grow his own BRIC community, and now serves as a mentor to Actuator participants. It’s a role that he relishes, and helps him pay forward the lessons he learned at BRIC’s Actuator.



Caitlin Christiana, BRIC's director of community and culture, ensures that founders maintain commitments to both their business concepts and their own lifestyle goals.

explains that BRIC's Actuator achieves this mission of "celebrating all identities and empowering individuals to contribute directly towards building an ecosystem of equity" in both formal and informal ways. She points to BRIC's [Safer Spaces Policy](#), which articulates a vision of inclusivity and specific related policies governing use of BRIC's co-working space and participation in programs such as Actuator. "At its heart, BRIC is about nurturing a diverse, thriving community," Christiana reflects. "Our Safer Spaces policy was developed to communicate our values-driven Codes of Conduct, which emphasize treating others with respect, honesty, fairness, and kindness."

But Christiana explains that Actuator's celebration of diversity involves much more than a code of conduct. "Through our equity-focused lens, we try to cast a wide net when searching for emerging entrepreneurs to participate in Actuator," she says. "The broader the range of backgrounds, perspectives, and expertise, the more the community benefits as a whole. We aim to make Actuator as accessible as possible." Formal policies such as a lightweight application process and no-cost participation aid in this goal.

In addition, BRIC Actuator staff leave no stone unturned when looking for participants. That means working with university groups with broad networks, including Dartmouth College's Tuck School of Business and the Vermont Manufacturing Collaborative at Vermont State University.

The relationship is mutually beneficial, according to Eileen O'Toole, director of Tuck School of Business' Center for Entrepreneurship. O'Toole says that many students aren't aware that Springfield is a growing innovation hub and the growth potential it might be able to offer them.

"You would have no idea about some of the benefits that Springfield has unless you're able to be exposed to it," O'Toole reflects. Students who participate in Actuator come from all over the world and represent a range of academic backgrounds and disciplines.

Even Actuator participants who don't ultimately remain in Vermont spread the word about the entrepreneurial environment in the region. Dibble says, "Part of the goal of this curriculum is for it to be something that would be easy to take to other places," offering a vision for place-based, community-driven entrepreneurial success that can exist in a range of places. That work begins with a commitment to making Actuator as welcoming as possible.

BRIC ACTUATOR PARTICIPANT PROFILE

Kanav Setia

Co-Founder and CEO, qBraid



KANAV SETIA began to consider pursuing a career in entrepreneurship as he approached the end of his doctoral studies in physics at Dartmouth.

"I had good enough expertise that I thought, 'Hey, maybe it could work out for me to do a startup,'" Setia says. "And four years later, here we are."

Setia is the CEO and co-founder of [qBraid](#), a cloud platform for quantum software development, which he launched with significant help from BRIC.

His first contact with the organization came during a campus visit by a BRIC staff member, and soon after, Setia joined BRIC's first Actuator cohort. During his time, Setia made use of BRIC's workspace, attended talks, and connected

with venture capital funders. These networking opportunities and access to a wealth of expertise were among the most impactful parts of his experience. Setia recalls, "BRIC had a lot of really interesting speakers. They were really quite helpful."

Setia says that his experience with Actuator helped pave the way for qBraid's acceptance into [Duality](#), the preeminent accelerator for quantum computing startups. "BRIC provided us with resources and ways to develop," Setia says. "So once we applied to Duality, we were already at a stage where we had a product team; we didn't just have an idea."

IMPACT

SINCE ACTUATOR'S LAUNCH in January 2021, 18 companies have been accepted into the program. BRIC has tallied an impressive list of touchpoints and innovations achieved by Actuator participants:

- ▶ **28** companies developed
- ▶ **22** products launched
- ▶ **152** technical assistance meetings attended
- ▶ **342** mentoring and coaching sessions attended
- ▶ **232** meetings with potential investors
- ▶ **13** patents held by Actuator companies

These impressive numbers only show a small part of Actuator's current impact. Actuator has strengthened BRIC's partnership with Dartmouth College, which publicizes the opportunity to emerging entrepreneurs on campus in nearby Hanover, New Hampshire. Through advanced manufacturing collaborations, Actuator has helped raise the visibility of the Vermont Manufacturing Collaborative at Vermont State University, establishing the initiative as a go-to resource for entrepreneurs who are leveraging advanced manufacturing techniques in their ventures. Actuator has helped to publicize and build community around the impressive list of food, drink, and social opportunities in Springfield and its environs to entrepreneurs who may not otherwise have been aware. Actuator has provided an entry point for entrepreneurs to connect, helping to build fruitful relationships that can spur innovation in the community for years to come.

Actuator's short-term effects are substantial, but the long-term impacts may be even more significant. Chris Maggiolo, BRIC's director of development, operations, and finance puts it this way: "It's nice to have a lot of folks participating in Actuator and developing new ideas, but even more important are the connections that Actuator is building and the energy that we are bringing to the Springfield region." Maggiolo emphasizes that the measure of impact need not be the success or longevity of entrepreneurial ventures established via Actuator. Instead, it's the power of the program to help lift up the community as a whole. "It's not a mark of failure if an Actuator participant isn't able to make a project work or moves elsewhere; that's part of entrepreneurship," Maggiolo says. "This is really about setting *people* up for success over time, establishing this region as a hub of innovation, and strengthening community ties."

Measuring how well Actuator is delivering on this promise will

take time and creativity. BRIC is interested in tracking the following indicators of success:

- ▶ Physical infrastructure occupied by emerging businesses in Springfield
- ▶ People hired by Actuator participants who are building new businesses
- ▶ Tax revenue generated by emerging businesses who are part of Actuator
- ▶ Follow-on projects based on the relationships that Actuator participants build with one another, with mentors, with coaches, with BRIC staff, and with community organizations
- ▶ Popularity and growth of Actuator among both potential participants and existing and potential partners
- ▶ Communities from outside the region that reach out to BRIC to learn about how they can develop an Actuator-style program locally
- ▶ External investment and growth of social institutions in the Springfield region as word of Actuator's success spreads

BRIC leaders believe that Actuator can provide a spark for realizing these outcomes, and are committed to leveraging Actuator for the benefit of the community as a whole.

NEXT STEPS

BRIC IS LOOKING FOR a variety of individuals and organizations to participate in and strengthen its Actuator offerings:

- ▶ **Emerging entrepreneurs** in the Springfield area can [apply](#) to be part of Actuator to develop a business idea and launch a business.
- ▶ **Prospective mentors** from any location who would like to serve as advisors to BRIC's Actuator participants should contact BRIC at actuator@bricvt.org.
- ▶ **Interested local community organizations and other potential partners** should reach out to BRIC to see how they can get involved in Actuator at chris@bricvt.org.
- ▶ **Communities**—particularly those in rural areas—looking to learn from BRIC's experience operating Actuator can reach out to BRIC at chris@bricvt.org.
- ▶ Learn more about BRIC's work on their website: www.bricvt.org.

To learn more and contact Siegel Family Endowment, visit www.siegelendowment.org