

Small Businesses Make Big Waves



The demand for small business innovation, technology, and solutions has never been higher

If rural western Massachusetts looks like something out of a Norman Rockwell painting, it's because that's where Rockwell kept his studio. But in addition to the picturesque college towns, quaint villages, covered bridges, and magnificent scenery, the region also has a long history of heavy industry that dates to the industrial revolution. These industries historically harnessed rivers for power and created mill towns that made textiles, paper, leather goods, electrical components, automobiles, and guns.

Pittsfield, Massachusetts is located 40 miles from Albany, New York and 140 miles from Boston. With a population of about 44,000, it is the county seat of Berkshire County (pop. 129,000). For many years the town's business was defined by its largest employer, the General Electric Company, which manufactured transformers, electronics and plastics, and employed 10,000 workers. Like much of western Massachusetts' heavy industry, it has moved elsewhere.

When General Electric left, it took many good paying jobs with it. But today, General Dynamics Mission Systems (GDMS) has a large, state-of-the-art facility involved in the design and manufacturing of complex electronics for defense purposes, such as submarine combat systems. In fact, General Dynamics' business is growing, attracting new and highly skilled workers, and providing an economic engine for Pittsfield and its surrounding communities.

Global Threats Push Innovation

According to Ann Rusher, GDMS vice president of supply chain management, there have been unprecedented changes in the national security business, largely because, “China and Russia are introducing new technology and new capability at an alarming rate.”

To counter that trend, Rusher said defense companies have had to accelerate the pace of innovation to work closely and more collaboratively with smaller businesses, including those that have not previously worked in the defense sector. “We need that innovative spirit and agility that small businesses can bring.”

To accomplish that, GDMS is fostering better ties with the community and its supplier base. The company brought together vendors and partners – particularly small businesses – to the Berkshire Innovation Center (BIC) for a “Supplier Day.”

Rusher said the event was aimed at reestablishing connections and relationships, and to make small companies aware of the resources in and around the Pittsfield area, as well as across the country, to help them, “learn about, grow, and partner with us.”

She said that big companies like General Dynamics truly rely on small companies, with their innovation and agility. Rusher said that today, more than 60% of GDMS current active supplier base are small businesses. “We added 104 small businesses to our active database just in 2021. And across all categories of small business, we’ve increased our spend over the last five years by over 15%. And every single one of the categories of small business – the HUBZone, service disabilities, veterans, and women owned – they’ve all been increasing, from five percent all the way to doubling.”

Supply Chain Challenges

Rusher said General Dynamics not only wants to foster relationships between the company and small businesses, but

also wants to facilitate the growth of those small businesses so that they can provide support to the entire defense industry. "By doing that, we can be a force multiplier for the government, and we can bring that innovative spirit, not just to us, but to the to the betterment of the country."

"We're a very successful company with an extremely talented workforce, but sometimes we need partners to help to solve some difficult problems," Rusher said. "Not only have these small companies helped us solve tough technical issues, but they often bring a technology or a capability that's so unique and state-of-the-art that when combined with the mission knowledge that General Dynamics has, it really is the differentiator to solve a problem and deliver exceptional capability."

However, while the demand for innovative technology and solutions has never been higher, the number of small companies in the defense sector has declined precipitously.

According to *Inside Cybersecurity*, Deputy Assistant Secretary of Defense for Industrial Policy Jesse Salazar acknowledged that small businesses are under immense market pressures.

"The number of DIB (defense industrial base) small businesses has shrunk by more than 40 percent over the past decade," Salazar said. "One of seven believe they will never return to pre-pandemic levels of performance."

"Just when we need them the most, the supply chain is shrinking," Rusher said.

Rusher admits that it might be a little intimidating for a small company to establish a relationship and work with a large defense contractor like General Dynamics. "It might even be tempting to think that we like to go it alone. True, General Dynamics can do a lot of things. And we can do many of the things that perhaps a small business could do. But the reality is the small businesses we work with bring something

very different, and way more than what we can do by ourselves,” she said.

“We don’t just want to work with you; we need to work with you,” she said to the Supplier Day attendees.

BIC Innovation Hub

The BIC in Pittsfield is a multimillion-dollar collaborative initiative between the Commonwealth of Massachusetts, private industry, local colleges, and local government that opened in 2020. BIC serves as a confluence of technology and ideas. It offers conference rooms, offices and laboratory space, all designed to bring people together so they share knowledge and expertise to address challenges and seize opportunities.

“We offer world-class research and development facilities and equipment, interactive training and conference facilities, and shared access to advanced technology for local manufacturers,” said Ben Sosne, BIC’s executive director. “We can do more together.”

Innovation centers like the BIC can offer online advanced manufacturing courses and access to content that serves companies and students, both locally and elsewhere. When potential employees learn about the technology being developed in the Pittsfield area, it can attract new qualified workers to companies like General Dynamics.

According to Sosne, a workforce with higher digital skills can command higher wages, but it also attracts more employers looking for people with those skills. “When we have a pipeline of new talent through apprenticeships, and the adoption of new technology, the higher the wages you can offer, and the more that you can attract that new talent. By working with local employers like General Dynamics and developing a curriculum that teaches methods and processes that meet their needs, you are essentially graduating an industry-ready group of engineering professionals and technologists.”

“Employers like General Dynamics are an economic engine and a jobs-multiplier,” said Benjamin Lamb Director of Economic Development with 1Berkshire. “One manufacturing job in the Berkshires supports 4.8 other jobs in the county.”

The official regional economic development organization and regional tourism council of Berkshire County, 1Berkshire, represents the Berkshire business community and offers a powerful network of resources for members and companies. “This is where the synergy of marketing and economic development within the same organization in the same building with the same team can become very powerful,” said Lamb.

Small Businesses are Essential Partners

“General Dynamics designs, engineers and makes all kinds of systems that are used for national security, so we take a lot of pride in that,” said Pittsfield Mayor Linda Tyer. “They are an essential partner here in the city of Pittsfield and throughout the Berkshires. They are a large employer, providing 1,600 skilled jobs for our community. But there are many opportunities for our small companies to be part of the supply chain that serves General Dynamics, so that we are strengthening the economy here in Pittsfield and the Berkshires. Our plastics manufacturers and engineering companies help provide plenty of opportunity for those small businesses to benefit from the presence of General Dynamics.”

Tyer said that workforce development is an essential part of the future and the success of General Dynamics and small businesses, no matter what kind of work they are doing. “It’s incumbent upon academic institutions like our community colleges and four-year colleges, as well as institutions like the Berkshire Innovation Center (BIC), as well as the state agencies that provide workforce training opportunities and internship programs, to make sure they are partnering with each other and the employers who need talent and have the job opportunities,” she said. “That’s why having the BIC here is

so important to the future of the innovation economy here in Pittsfield.”

State Representative Tricia Farley-Bouvier, who represents Pittsfield, agrees. “General Dynamics reaches throughout the region to bring new talent to the Berkshires, not only with intellect and their skills, but the energy that they bring to our community. They spend their dollars in the outdoors and arts economy and in our shops and cafes, and volunteer in the Berkshire County. We want to ensure that we have a reliable local supply chain for this global company of General Dynamics, and ensure that the pipeline is a short one,” she said. “I think workforce development is the biggest challenge right now, and that’s across the board in every industry here in western Massachusetts. But we’re very well positioned in Berkshire County because our high schools are producing really good workers and launching them into STEM careers, and that is an excellent source of talent for General Dynamics.”

Farley-Bouvier cautioned that General Dynamics can’t stand back and wait for the workforce to come to them. “General Dynamics has been and needs to continue to be part of that solution. They need to continue to be in at Taconic High School, MCLA (Massachusetts College of Liberal Arts), and Berkshire Community College and be part of those solutions. One of the most successful things that General Dynamics has done, and other smaller companies around Berkshire County have copied, is to provide paid internships. Paid internships are critically important because they level the playing field. It used to be that everybody took unpaid internships because there weren’t a lot of jobs out there. But the only people who could take an unpaid internship were those students whose families could support them. The young people who were economically distressed had to take those low paying service jobs over the summer because they had to pay their bills,” she said.

“Fortunately, General Dynamics is really invested in these

students, and it's paid off for them," said Farley-Bouvier. "And we need to do a lot more of that to ensure that we have a reliable local supply chain for this global company of General Dynamics."