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Entrepreneur's Toolkit: Extreme Makeover

By John Hitch

Michael Garvey transformed his family's struggling business, Trumbull Bronze Co., into a high-tech precision measurement and manufacturing company known as M7 Technologies.



Benjamin Wirtz Siegel

When Michael Garvey's grandfather built Trumbull Bronze Co. in 1918, the Warren-based foundry supplied 23 mills with parts for steel making and shaping.

"He used to say, 'This technology has been around since the Egyptians,'" Garvey recalls. "My grandfather figured it was not going anywhere, at least in his lifetime."

It did, however, change dramatically in his son and grandson's lifetime. Luckily, Garvey was able to transition the remains of Trumbull Bronze into high-tech precision measurement and manufacturing company M7 Technologies in 2004.

The company analyzes the integrity of clients' machinery and components using portable energy-return-based evaluation tools. The data is used to extend the life of customers' equipment and reduce operating costs. Along with various steel mills, M7 has worked on projects involving NASA and the U.S. Department of

Defense.

But such success was a long climb and a lot of hard work. Before taking over Trumbull Bronze, Garvey worked on the New York Stock Exchange trading floor. The specialist clerk recorded trades and executed stock orders for Wagner Stott, whose clients included 63 of the top blue chip corporations. When he learned his father was ill in 1985, he rushed home for a two-week furlough. While there, he visited the foundry and surmised it was a cause of his father's condition.

"I realized what was causing his illness: the pressures of the business," Garvey says, "because the entire steel industry and this community had imploded."

Production had plummeted to one-third capacity in 18 months. Then, half of the company's remaining customers went down for the count.

"He was just being knocked to the canvas every time he stood up," Garvey recalls.

He attributed his Wall Street success to his upbringing and decided to pay his father back by helping out and pledged two years to the family business. With very few resources and even less sleep due to 100-hour workweeks, Garvey held true to his word. Near the end of this commitment, Trumbull Bronze posted its first profitable quarter in seven years. Then, disaster struck. The foundry burned down.

Rather than rebuild, the Garveys decided to focus on their small machine shop. There, Garvey learned to help clients audit their machinery and test equipment density and durability. Knowing he had to advance technologically to stay in business, Garvey began charting a course to a high-tech future.

The map to heading in a new, high-tech direction wasn't found on the machine shop floor, so Mike Garvey needed help. The day his biggest client was sold to a foreign company, he called U.S. Rep. Tim Ryan's economic development director Barb Ewing to seek help.

"He moved very aggressively on every lead we gave him, every suggestion we gave him and every contact we made for him," Ewing recalls. "He looked under every stone to try and best position his company into new markets and new opportunities."

Ewing, now the COO of the Youngstown Business Incubator, calls Garvey a visionary for the way he researched his strengths and weaknesses. He also identified the resources at his doorstep. M7 Technologies became a Youngstown Business Incubator virtual portfolio company and research partner with Youngstown State University's College of Science, Technology, Engineering and Mathematics.

This alliance has received millions of dollars in grant money, says Mike Hripko, director of STEM's research and technology-based economic development. The most recent was \$1.66 million from the Wright Center for Sensor System Engineering to develop next-generation sensor equipment.

As impressed as Ewing is with Garvey's fearless scientific approach to business, she's even intrigued by M7's sci-fi-like, laser-emitting technology, which sometimes collects more than a terabyte of data. "It was manufacturing as you'd expect it to be on Star Trek," she says.

She's not far off. For several years, M7 has received government contracts to fund research and development for confidential and commercial applications. It has also worked with NASA through third parties. Recently, M7 hired a theoretical astrophysicist from Princeton as director of software development to work on other projects exploring zero gravity.

"Space, they say, is the final frontier," Garvey says. "I say it's the next frontier."