

IMPACT REPORT



Vermont's Trusted Resource
for Manufacturing Since 1995

*Strengthening and Empowering
Vermont Manufacturers*



PART OF THE



MEP
National
Network™

OFFICIAL REPRESENTATIVE

**VERMONT
TECH**

Small College. Big Outcomes.
VMEC HOST SINCE 1995

2022

A Letter from Our Center Director and CEO



PATRICK BOYLE

Center Director and CEO

To Manufacturers, Clients, Partners and Stakeholders Throughout Vermont:

It is an honor for me to be leading VMEC as only the second Director since its inception over 25 years ago. It is an understatement to say that this is an exciting time to be leading the only singularly-focused resource for manufacturers in the Green Mountain State. Manufacturing is alive and well and more important now than ever!

The VMEC team partners with Vermont manufacturers to grasp opportunities to grow as well as mitigate and solve problems preventing growth. We have a mission to deliver a competitive advantage to Vermont manufacturers working together to continuously improve across the business metrics that count.

The VMEC team has over 185 years of collective experience. This has led to a proven track record that you'll see in the data we share in this report, which summarizes the positive outcomes reported by clients served in FY 2022. This reflects jobs created and retained, company investments made, cost savings achieved, sales

successes above incremental, employees trained, economic multipliers, ROI; the list is long, impressive and indicative of successful partnership. Thank you for letting us work with you.

We have strong relationships on the federal, regional, state and local levels as well as a passionate commitment to help enterprises improve, grow and achieve a promising future. We look forward to continuing to support and partner with the manufacturing community, to advocate for growth and to champion the stories of perseverance and success!

Please reach out directly to me at any time. I'd love to hear your ideas and suggestions of how to make the world of manufacturing the best it can be for Vermont regardless of your size, business longevity, next steps or exciting challenges that lie ahead for you. We are invested in making the future as successful as possible.

2022 IMPACT OF VMEC IN VERMONT



96 Jobs created
that otherwise wouldn't
have existed

443 Jobs retained



930 Total jobs created,
direct, indirect and induced

\$69,600,000
Employer wages & benefits
for these jobs



\$10,375,000

Client investment
in modernization



\$46,801,000

Increased and
retained sales



\$43,542,000

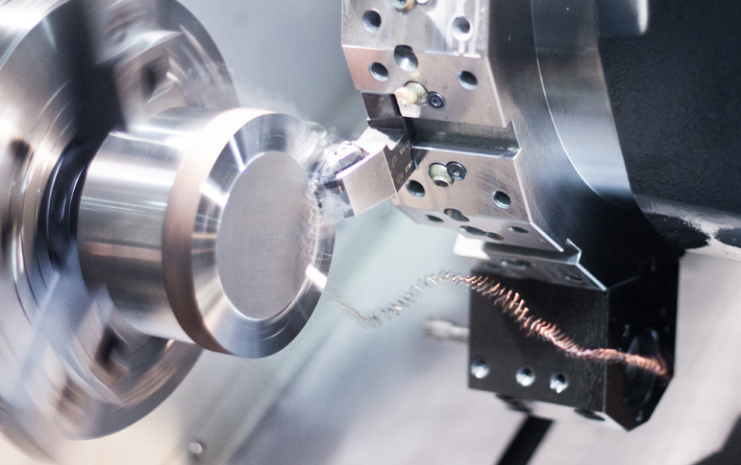
Additional labor
compensation



\$9,117,000

Cost savings

Data reflects client reported impact as a direct result of VMEC assistance from VMEC projects surveyed July 2021 through June 2022. A third party conducted the surveys under contract to NIST MEP. Respondents represent 64% of all Vermont clients served by VMEC during the period. Some data resulted from input-output analysis (using JobsEQ) based on results from VMEC clients surveyed.



WHO IS VMEC?

VMEC has earned the trust of Vermont's manufacturers over its 25+ year track record. We accomplish what we do by:

- Providing, convening, aligning and focusing our resources on supporting manufacturers
- Serving the entire state of Vermont and being nationally supported through NIST MEP
- Offering versatility in business, workforce, process and technical expertise
- Allowing flexibility and better equity of our services with our not-for-profit status
- Connecting manufacturers to national opportunities
- Partnering in the ecosystem at federal, state and local levels to support manufacturers
- Introducing and facilitating grant opportunities for Vermont manufacturers, regardless of their size
- Having Vermont Technical College as our hosting partner since our inception
- Equipping manufacturing employers to meet the dual challenges of a global supply chain shortage and workforce obstacles
- Expanding and collaborating with regional networks to support Vermont manufacturers

This annual report summarizes the positive outcomes reported by clients based on our partnership. Please visit www.vmec.org for additional ways we can work with you and your organization to achieve your greatest business success.

HOW DOES MANUFACTURING IMPACT THE ECONOMY?



Economic Multiplier

Every **\$1** in manufactured goods generates an estimated **\$2.68** worth of additional economic activity, the third highest of any other economic sector. If the entire manufacturing and supply chain is included, every **\$1** spent in manufacturing adds another **\$4.00** in economic activity.



Employment Multiplier

Each manufacturing job supports an additional **five jobs** elsewhere.

Source: National Association of Manufacturers

Client Return on Investment > 350:1

Over the past 3 years, every **\$1** clients spent on VMEC assistance returned an average on that investment of **\$350**.

Based on company-reported data,
April 2019 through March 2022



Cover photo courtesy of Barry Callebaut Group, the world's largest chocolate manufacturer, which has a facility in St. Albans, Vermont. Other report photos courtesy of Hazelett Corporation, Chroma Technology and Vermont Tech.

CLIENT PROFILE HAZELETT CORPORATION

From its campus on the shores of Lake Champlain in Colchester, Hazelett Corporation has become a global leader in the design and manufacture of continuous casting machines. With 150 employees, the company is engaged in research, design, and manufacture of twin-belt casters, foundry products, and spare parts.

In 2022, Hazelett approached VMEC about creating a workshop for employees on “Root Cause Analysis.” The workshop teaches a systematic process for identifying “root causes” of problems and an approach for responding to them. Hazelett assembled teams from different departments to help build trust and improve communication between departments.

RESULTS OF VMEC ASSISTANCE

- Identified root causes of complex painting problems, implemented corrective actions improving quality
- Enhanced inter-department employee relationships
- Improved professionalism of employee presentations
- New approaches for solving current challenges on the job



“VMEC is a powerful resource for measurable continuous improvement for any Vermont business or organization!”

DAN GLEASON, HAZELETT TRAINING COORDINATOR

VERMONT MANUFACTURING FACTS & FIGURES



9%

Vermont GSP contribution by manufacturing

10%

Vermont workers employed by manufacturers, representing 28,670 individuals in all

\$64K

Average annual compensation for Vermont manufacturing employees, compared to the average Vermont compensation of \$56K

Note: Manufacturing facts are based on 2020-21 data from National Association of Manufacturers, US Census and VT DOL.

76%

Employee Recruitment and Retention

70%

Continuous Improvement & Cost Reduction

33%

Growth Opportunities

32%

Product Innovation and Development

24%

Technology Needs

Top 5 Challenges to Manufacturing Growth

Based on client surveys completed July 2021–June 2022 by an independent third party under contract to NIST MEP

CLIENT PROFILE

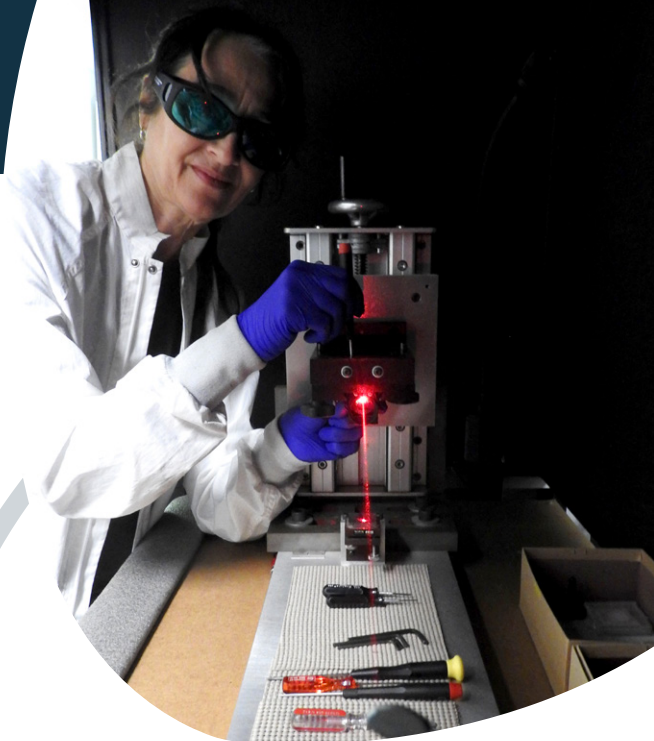
CHROMA TECHNOLOGY

Based in historic Bellows Falls, Chroma Technology has designed and manufactured high tech optical filters since its founding in 1991. The company's filters are used in many applications — such as fluorescence microscopy, photography, and clinical chemistry — in industries ranging from the life sciences and agriculture to manufacturing and aerospace.

After having many positive experiences with VMEC in the past, Chroma reached out to VMEC in 2022 for assistance with designing internal audit training. While their audit program was sufficient, they had an influx of new auditors and specific areas they wanted to improve throughout the year.

RESULTS OF VMEC ASSISTANCE

- Newly trained auditors with a foundational understanding of auditing processes specific to Chroma
- A revised audit process that includes more accurate details for ultimately better results
- Clearer observations for team members about shortcomings and opportunities in the manufacturing process
- More concise and meaningful communication in audit reports



“VMEC is one of the easiest groups to facilitate training with. They truly take an interest in the topics they teach.”

STACEY REEVE, CHROMA QUALITY SYSTEM ENGINEER

VERMONT MANUFACTURERS SERVED IN FY 2022



More than **645** manufacturing employees from **56** manufacturing clients were served over the last fiscal year through public events and onsite projects. **86%** of our clients over the last three years have used VMEC services before.



Size of Firms Served by # of Employees

■ 1-9	»	14%
■ 10-50	»	37%
■ 51-100	»	19%
■ 101-500	»	28%
■ 500+	»	2%

July 2021 - June 2022



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Vermont's First Advanced Manufacturing Center Builds Cutting-Edge Opportunities for Manufacturers

The Vermont Manufacturing Collaborative (VT-MC) was founded to help accelerate business adoption of Advanced Manufacturing technologies and to develop a highly capable workforce to sustain it.

Vermont manufacturers can access the Advanced Manufacturing Center (AMC) to transform their design and manufacturing capability and take advantage of learning opportunities. The facility includes design digitization, advanced machining, additive manufacturing of both plastics and metals and advanced inspection and metrology. VMEC helps manufacturers by providing educational access and has facilitated tours with over 160 companies, schools and partners which includes over 660 people.

The VT-MC is hosted by Vermont Tech at its Randolph Center campus and supports the New England region. Just a few months

before his retirement from the U.S. Senate, Senator Patrick Leahy visited the AMC. Over the previous two years, the senator had been instrumental in securing \$12 million in federal funding to establish Vermont's first and only Advanced Manufacturing facility.

Impacting Manufacturers

- Educating and de-risking the purchase of capital equipment (try before you buy)
- Providing prototypes in advanced materials and innovative additive manufacturing technologies
- Analyzing parts with CT Scanning for inspection and root cause analysis
- Connecting companies with students for manufacturing projects within the AMC
- Providing training opportunities and demonstration of advanced manufacturing technologies



VMEC Advisor Chris Coulter led the tour through the state-of-the-art facility for Senator Leahy and former Vermont Tech President Pat Moulton

