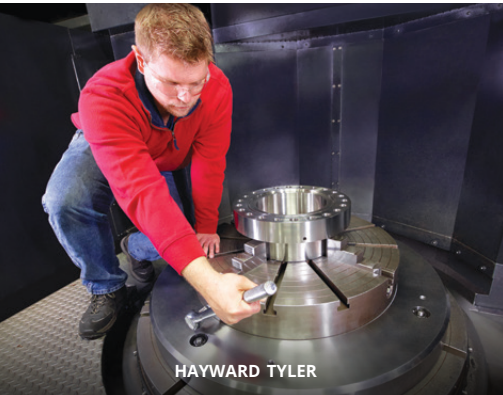


30 YEARS STRENGTHENING AND EMPOWERING VERMONT MANUFACTURERS



HAYWARD TYLER



GORDON'S WINDOW DECOR



CALEDONIA SPIRITS

A HISTORY OF VMEC ASSISTANCE IN VERMONT

IN 1994, a group of Vermont business leaders began researching the needs of the state's manufacturing sector, with an eye on providing long-term support for manufacturing growth and success. The result of their efforts was the creation of the state's first Manufacturing Extension Partnership (MEP) center, and thus the "birth" of VMEC in December 1995. This report offers a history of VMEC throughout the years and words from manufacturers we've served during that time.



LAKE CHAMPLAIN CHOCOLATES

Timeline for VMEC



VERMONT COFFEE

EARLY IN 1994, Muriel Durgin was hired to oversee research into Vermont's manufacturing sector and create a grant proposal to the National Institute of Standards and Technology (NIST) for a multi-year cooperative agreement. That grant was a direct result of the forward-thinking vision and proactive efforts of a small group of key individuals and entities — the Vermont Technology Council; Dr. Robert G. Clarke, then president of Vermont Technical College (VTC); and Bill Shouldice IV, then secretary of the Vermont Agency of Commerce & Community Development — with important support and encouragement from many Vermont manufacturers. The NIST planning grant's basic goal was to explore the feasibility of creating a Manufacturing Extension Partnership (MEP) center in Vermont. This effort was successful and led to the "birth" of VMEC in December 1995.

THE NEWLY-ESTABLISHED CENTER, set up as a public-private partnership, would officially be "hosted" by the Vermont State Colleges, with VMEC headquarters located at VTC in Randolph Center. As required by NIST, VMEC rapidly established an Advisory Board, with the majority of board members and the board chair required to be active Vermont manufacturing leaders. John Moore, then owner and president of Fab-Tech, Inc., was elected and served as the first board chair.

VMEC'S INITIAL FOCUS is nearly mirrored three decades later in today's mission — helping Vermont manufacturers become more competitive, grow their sales and profitability, innovate, and overcome their ever-changing challenges. The center's client project work is required to achieve measurable, client-reported outcomes as a direct result of center involvement. Confidential client-reported project impact is gathered as a requirement of VMEC's NIST grant and guides VMEC and the MEP-affiliated center now and in the future.



TWINCRAFT SKINCARE



OLIVIA'S CROUTONS



BENCHMARK SPACE SYSTEMS

VMEC'S INITIAL TEAM included Muriel Durgin as its state director and field engineers Bob Zider and Paul Demers. VMEC outreach began the following month with travel throughout the state to meet with company leaders and plant workers, starting the growth of VMEC's loyal client base. It was readily apparent that many needs existed, including continuous process and efficiency improvements, introducing and deploying "Lean Manufacturing" thinking and concepts (Bob and Paul became known as "the Lean guys" throughout Vermont), leadership planning and development, workforce development and practical training opportunities. Paul worked out of a satellite office in downtown Burlington at the Greater Burlington Industrial Corporation and became active in the Society of Manufacturing Engineers. Plant tours ultimately led to the first Manufacturers' Forum hosted by IBM at its Essex Junction facility, and the first Lean training was held at the BF Goodrich plant in Vergennes. Over his 16 year career with the center, Paul trained thousands of Vermonters on VMEC's Lean Fundamental concepts.

A FEW WORDS FROM OUR PARTNERS

"I have been involved with VMEC from its beginning in 1995. Their startup meant a renewed focus on manufacturing in Vermont, particularly small and medium-sized manufacturers. These enterprises are critical to the Vermont economy and the state's history has depended on manufacturing and innovation. Whether it was clothes pins invented in Springfield in 1853 to the world's best machine tools to electric airplanes in the 2020's, Vermont has been an innovation state. VMEC has been central to that innovation during its 30 years. Programs including Lean Manufacturing, cybersecurity, creating a culture of continuous improvement, and so many more innovation and efficiency tools have been deployed with Vermont manufacturers across the state by the amazing team at VMEC. Throughout the years, VMEC has been able to attract some of the best of the best to work with Vermont manufacturers. I am so proud to have been part of the VMEC history in various capacities over my career and their first 30 years! Here's to many, many more years of innovation and evolution with VMEC!"

— **PAT MOULTON, Central Vermont Flood Recovery Officer, Vermont Agency of Administration**

"Don't Mess With Vermont! I saw that bumper sticker on a car years ago and to this day I assume the message pertained to VMEC. Manufacturers in Vermont feed us, protect us, and entertain us. They contribute groundbreaking innovations and components of manufactured goods from around the world. There are over 1,000 manufacturers in the Green Mountain State and VMEC has worked one-on-one with well over 30% of them. Bob Zider, Patricia Giavara, Patrick Boyle, thank you for your leadership of the Center. Pat Moulton, thank you for lending your voice to the NIST MEP's Manufacturing Advisory Board. VMEC has endured for 30 years because of your collective leadership and your ability to forge and nurture partnerships with the State of Vermont, the state's technical college system and the entire ecosystem of economic development organizations around the state. Your accomplishments are not only impressive but also recognized as "tops" around the national network of MEP centers."

— **MARK SCHMIT, Division Chief for Performance Evaluation and Economic Impacts, NIST**

"With a manufacturing career that has spread over decades, I have had the opportunity to work with VMEC extensively and they have been a critical supporter, educator and partner in advancing Vermont's manufacturing sector. Lean manufacturing and office, structured problem solving and a balanced scorecard approach to goal setting are just some of the tools learned from VMEC while at IBM and have since been brought into Chroma Technology and 89 North. With their help, we have and continue to improve our productivity, solve problems more effectively and create clarity in our direction. And just as importantly, VMEC supported us in creating organizational cultures to improve what we do every day."

— **JANETTE BOMBARDIER, P.E., Chief Technology Officer/ Chief Operating Officer, Chroma Technology/ 89 North**

VMEC'S OFFERINGS AND BROAD EXPERTISE continued to grow, along with its staff. Lisa Henderson joined VMEC in late 1996 as a field engineer and remains with the center today. Following Muriel Durgin's retirement in late 1996, Bob Zider became VMEC Center Director and CEO and held that position until retiring in July 2021. After Bob's retirement, Assistant Director Patricia Giavara, who began her employment with VMEC in early 2003, assumed the helm as interim Center Director and CEO until her retirement in the summer of 2022. She passed the torch to Patrick Boyle, today's Center Director and CEO.

Thank you for being our partner in "Strengthening and Empowering Vermont Manufacturers Since 1995." We look forward to the next 30 years!



MAMAVA



GENERATOR MAKERSPACE

AS A HIGH-PERFORMING MEP CENTER these last 30 years, VMEC continues to have ready access to the many resources, problem solving solutions, and the collective experience and expertise of the entire NIST MEP network of Centers. In today's ever-changing conditions, this is invaluable when addressing the challenges facing Vermont Manufacturers. We focus not only on addressing Vermont's manufacturing sector's current needs, but proactively look ahead to identify effective solutions to address emerging challenges in the future.



"Congratulations to all at VMEC for 30 years of invaluable service to VT manufacturers! It's hard to believe it's been almost that long since I attended a workshop with Don Guild where I struggled to understand how something like Lean principles and capacity lot sizing could possibly help our little company solve ongoing inventory control issues. I remember he said that if there were concepts that weren't understood, one could attend the next workshop at no charge. Sure enough, there I was, front row for the next session where Don, having recognized me, asked why I was back. I recall replying, as politely as possible, that I came back to make sure he knew what he was talking about.

Things could only get better from there and indeed they did as we subsequently worked with VMEC to 1) initiate and administer a contract with Don Guild to help Trow & Holden implement a production management and inventory control system culminating in a customized Pull System that we still use to this day, 2) enlist Paul Demers and VMEC to initiate an RFP for an automation project to produce parts that we had been manufacturing the same way for well over a hundred years. The end result was a machine that produced parts with a significant reduction in energy, material and labor costs and 3) train our employees in such areas as set-up reduction, value stream mapping, innovation/ product development and in 2018, extensive training that enabled our company to establish a quality system that resulted in our successful ISO 9001 registration."

— **NORM AKLEY, Former President & Owner, Trow & Holden**

"Maple Landmark has been working with VMEC since 1996, with projects in Lean training, automation, product innovation, supervisory training, work floor planning, and lots of small conversations that have themselves led to not-so-small improvements. With their help, we have been able to navigate the ever-increasing complexity we face in product development, technology, and shop floor organization. I attribute our ongoing success to the great staff at VMEC and the broad organization behind them. Also, as a long term member of the VMEC advisory board, it is gratifying to see the wide range of companies, of all sizes, that have benefited from the services VMEC has provided over the years. Vermont manufacturers are fortunate to have this resource."

— **MIKE RAINVILLE, President/ Owner, Maple Landmark Woodcraft**

"In my role in the mid-90's as the state's head of the Agency of Commerce and Community Development, I was fortunate to be part of a team led by the VT Technology Council whose goal was to enhance the economic development infrastructure in Vermont — what had and had not been accomplished and how to close necessary gaps. This action plan ultimately led to the reality that we needed to support the manufacturing community and from there, VMEC was born. In the spring of 2020, Vermont's manufacturing community, along with so many others around the world, battled to survive the unprecedented COVID-19 pandemic. Governor Scott asked me to chair the RestartVT MFG Working Group; this immediately led to working with VMEC and a group of 12 industry, association and not-for-profit leaders. We created and implemented a three-phased re-opening plan that adhered to CDC and VOSHA-specific health and safety guidelines, enabling the manufacturing sector, one of the first in the state to re-open their operations, to do so in a safe and productive way. With VMEC's participation and leadership as a world-class technology and educational center during this time of uncertainty, we had the necessary road map not only to strive but to thrive."

— **BILL SHOULDICE IV, CEO, Vermont Teddy Bear Company**



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“For many years, VMEC’s partnership has been important to the innovation and growth of manufacturing companies in Vermont. Manufacturing plays a critical role in our state’s economy and I’m grateful for VMEC’s dedication to this important sector.”



GOVERNOR PHIL SCOTT, *State of Vermont*

30 YEAR IMPACT

Note: All data that reflects VMEC’s 30th anniversary covers 2000–2023; data is not available prior to 2000.



SALES

Increased Sales
\$403,348,768

Retained Sales
\$570,311,088



JOBS

Job Creation Total
1,974

Job Retention Total
4,588



SAVINGS

Cost Savings
\$107,037,297

Investment Savings
\$121,173,722



INVESTMENT

Plant and Equipment
Investment Total
\$187,236,721



VTSU IMPACT

VMEC has been hosted by the Vermont State University since its inception. VMEC’s combined impact to the University from 1995 to 2023 is over \$2,500,000. VTSU administers the VMEC - NIST Cooperative Agreement.

AVERAGE ANNUAL WAGES PER WORKER OVER THE YEARS

Type of Manufacturing	2001	2023
Food	\$30,167	\$55,863
Wood Products	\$29,272	\$52,186
Plastics and Rubber Products	\$32,639	\$63,531
Fabricated Metal Products	\$39,255	\$62,759
Machinery	\$41,711	\$73,521
Computer and Electronic Products	\$58,195	\$105,711
Electrical Equipment, Appliances, and Components	\$35,423	\$66,348
Transportation Equipment	\$46,400	\$78,515
Furniture and Related Products	\$26,272	\$47,665

