

GENEDGE



Building Momentum Together Through The Pandemic Lens

ANNUAL REPORT 2021



A Message From Our Board Chair

Proactive Approach to Adversity and Building Future Momentum

GENEDGE's response to these unprecedented challenges has been outstanding during this second year of the pandemic.

I am extremely proud to have been actively involved in the third quarter Stakeholder Input Sessions to drive Strategic Planning. Those half-day feedback sessions with regional clients and key alliances proved enlightening and exposed true pain points simultaneously for our consumption to drive future direction/efforts for GENEDGE, and the Commonwealth to better expand into new engagements and new marketing penetration.

Additionally, I am excited at the results demonstrated by the success of the Virginia Retooling Virginia Manufacturers for Strategic Industries Program, with leadership provided by Trustees Rick Gagliano and John Mead, along with representatives from all nine GO Virginia Regions. Collaborative efforts like this underscores our Mission/Vision shared theme to be our state's 'go-to' resource as an Alliance united to help Virginia manufacturing and industry innovate, compete, and grow.

Thanks to GENEDGE's Leadership, we forged ahead once again to keep our people safe, while implementing more ways to remain responsive and evolve our service models to meet the needs of the clients we serve and the conditions in which we must operate.

I am extremely proud of every member of the GENEDGE team who has worked tirelessly again this year to support each other and their clients.

As year 2022 approaches, we must continue to be flexible in our thinking and adapt our operations on behalf of manufacturing and industry in the Commonwealth.

I truly appreciate all of you. Stay well and thank you.

Jeffrey Jaycox
Board of Trustees Chair, GENEDGE Alliance
President & Owner, Tabet Manufacturing Co.



"LiteSheet Solutions is a manufacture of LED lighting for commercial and industrial applications. During the pandemic, we re-utilized our creativity from lighting to helping develop technology for protection from infection. This led to the development of the UVC Disinfecting Cabinet and a spin out company called PureWorks. GENEDGE was pivotal in locating professional services to test, market, and bring our new technology to market and the grants to support those services. GENEDGE has delivered, and continues to deliver, services that we value and services that we would not have been able to organize and effect on our own."

- Tara Clay, Executive Administrator, LiteSheet Solutions, Forest, VA

Board of Trustees

Chair

Jeffrey S. Jaycox, President & Owner, Tabet Manufacturing Co.

Vice Chair

Douglas Frost, P.E., Senior Vice President, Dewberry LLC

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Dr. Makola M. Abdullah, President, Virginia State University

Peter Bale, Founder & CEO, Sentinel Robotic Solutions LLC

The Honorable R. Brian Ball, Secretary of Commerce & Trade

Matthew Clarke, President & Founder, Clarke Precision Machine

Dr. John A. Downey, President, Blue Ridge Community College

Marc Foglia, President & Co-Founder, NVIS, Inc.

Dr. Tiffany McKillip Franks, President, Averett University

Richard J. Gagliano, President & CEO, AccuTec Blades, Inc.

Dr. Brian Hemphill, President, Old Dominion University

Dr. Shannon L. Kennedy, President, Rappahannock Community College

Gabriel LaMois, Chief Operating Officer, Technology Advancement Group (TAG)

John E. Mead, Chairman of the Board, Master Gage & Tool Co.

Abdelkarim Moharram, Senior Project Developer, Orascom Construction

Wesley Reid, Director of Operations, Integrity Windows and Doors

Karen D. Sorber, CEO & Co-Founder, Micronic Technologies, Inc.

Dr. Wayne P. Stilwell, CEO, Stilwell Technology and Robotics LLC

Bob Stolle, President & CEO, The Virginia Innovative Partnership

Corporation (VIPIC) / Formerly Center for Innovative Technology (CIT)

Kaushik Vashee, P.E., Vice President, DanChem

A Message From Our Executive Director



Powering through the Pandemic

In the spring of 2020 with Trustee approval, GENEDGE went forward with a bold plan to build capacity, capability, and a foundation for accelerated growth despite the pandemic and the uncertainty it created.

Securing Our Future Within

We have been fortunate during the pandemic to attract exceptional new employees to address our succession management, operational and administrative needs, reflecting the attractiveness of our entrepreneurial environment within a public institution construct.

The designation of GENEDGE as a political sub-division by the General Assembly and the Governor in 2020 now allows GENEDGE to directly address constraints in Procurement, Human Resources, and Fiscal Management streamlining our ability to respond to the market while improving our cohesiveness and spirit within the organization.

Higher Education Alliances

Our University Student Programs at Virginia Tech and VSU, as well as our newest venture, the Makerspace operating out of ODU's Batten College of Engineering and Technology are thriving.

Programs and Services

Year 2021 created a very challenging environment, particularly for the SMEs that we serve. Our GENEDGE Alliance associates, 3rd party resources and partners have continued to deliver value and drive impact within the manufacturing supply chain in the Commonwealth. Our Federal CARES Act funding supported our GO VA Retooling Virginia Manufacturers for Strategic Industries Program, the first ever GO VA statewide program providing significant impact to include all nine regions as partners. In 2022, we are working with our partners at VEDP's International Trade program as a key provider of supply chain services for businesses participating in their global supply chain program.

We continue to be the Commonwealth's largest, public-private partnership provider of Cybersecurity services for the Defense Industrial Base (DIB). Our highly successful DEFENDCUI-VA program greatly improves compliance with DoD Cybersecurity Requirements for contractors working with DoD in Virginia, in conjunction with a fast-growing private sector provider network. In cooperation with the Governor's office and the DoD Office of Local Defense Community Cooperation, we are assisting 85 companies to develop their plans for compliance. We are currently working on developing a platform-based approach used to scale these services positioning Virginia as the primary provider of commercial Cybersecurity services in the nation.



"GENEDGE offers a variety of services that are critical for businesses in Virginia, from Cybersecurity to Strategy and Marketing. Polimaster has worked with GENEDGE on multiple projects, and each time the GENEDGE team has been helpful and professional."

- James Mehalchick, President and COO; Polimaster, Inc., Arlington, VA

Also progressing well is our work with NIST, the Department of the Navy, and Huntington Ingalls – Newport News Shipbuilding to insert advanced technologies such as digital twin systems, automated welding using collaborative robots (cobots), induction heating and atmospheric plasma blast technologies to better prepare metal substrates for welding and coating. We intend to build upon these capabilities to establish a Mobile Technology Insertion Initiative (MTII) to serve as a catalyst for SMEs in the DIB to access and invest in advanced manufacturing technology, modernize operations to compete globally, and increase their workforce skills.

Strategy and Risks

GENEDGE Alliance has much to be proud of in 2021, but we are also looking toward the future. Our 4-year strategic planning process, starting with feedback from a cross section of stakeholders engaged appx. 125 stakeholders including representatives from industry, economic development, higher education, and the Governor's Cabinet. Still a work in progress, with strong leadership from our Board of Trustees, we have developed five areas of focus: *Enhancing Strategic Partnerships, Expanding Services to <15 Employee Businesses, Improving Client Capital Access, Enhance Fulfillment of Client and Employee Needs, and Increasing Market Awareness.* I would like to give a special 'note of appreciation' to our Board Chair, Jeff Jaycox, President & Owner of Tabet Manufacturing in Norfolk for his ongoing involvement and leadership during this process.

Appreciation For Our Commonwealth Alliances

I thank all our Alliance stakeholders: the Governor's Office especially the Secretaries of Commerce & Trade, and Veterans and Defense Affairs; the General Assembly; our Trustees; GO VA regional directors and representatives; employees; partners; third-party service providers; and our clients for your unwavering trust and support for GENEDGE. By investing smartly in the downturn, together we are now poised to further assist the manufacturing supply chain in Virginia to prosper in FY2022 and beyond.

Bill Donohue
President & Executive Director, GENEDGE Alliance

Our Leadership Team



Bill Donohue
President
& Executive Director



Anthony Cerilli
Vice President
of Operations



Joshua Dawson
J.D., M.A., Chief Financial
Officer & Business Manager



Scott L. Schein
Director, National
Network Programs



Dean Young
Vice President,
Industrial Development

Our value comes from
improving yours...

\$1
For every **\$1** invested
in GENEDGE services,
\$25 returns
to your
bottom
line.

Why GENEDGE?



GENEDGE is Virginia's only manufacturing and economic development organization partnered with the MEP National Network™, a public-private partnership that empowers small and medium-sized manufacturers to grow and thrive through educational resources, industry connections, and best practices. GENEDGE leverages federal and state funding to deliver curated expertise and resources to Virginia manufacturers, businesses, and other organizations. Our experts can help you solve today's toughest problems – *like how to increase productivity, keep your workforce safe and healthy, or pivot to produce PPE to meet market demand following the 2020 COVID-19 pandemic*. We also deliver longer term planning - *like how to improve economic competitiveness and enhance technical capabilities*. No matter what the challenge, GENEDGE brings expert solutions to help Virginia companies grow and thrive.

Our Values

GENEDGE seeks to apply its expertise and share our values in unique ways to develop long-term relationships with our clients and alliances. GENEDGE associates will be guided by the following values:

1. **Work with integrity** (by being responsible, respectful, trustworthy, and with upstanding character)
2. **Work collaboratively** (by embracing differences, encouraging others, supporting teamwork, empowering others, and seeking strong two-way communications)
3. **Always be learning and applying new knowledge** (by being adaptable, flexible, open minded)
4. **Be inclusive** (by being self-aware in all interactions, mutually respectful with others, open and fair-minded, embracing differences)
5. **Think creatively** (focus on doing new things differently, apply new learning and approaches)
6. **Positive Results** (by doing what is right for the client)



"I reached out to GENEDGE about the addition of quality utility trailer and custom trailer production process to a new manufacturing facility we were developing. We were seeking expertise as to how to produce these trailers more efficiently and where we could introduce new technologies in our new advanced manufacturing environment. GENEDGE's support helped us to better understand the process, technologies available, such as, cobots or other automation and ultimately led us to improve production efficiency significantly."

- Todd Elswick, Owner, Paul's Fan Company, Grundy, VA



"Like most small businesses, the cost of cybersecurity is a significant investment. We learned of GENEDGE's DEFENDCUI-VA program and how it could support our compliance efforts. We were happy to participate in the program to get onboard toward compliance to better arm ourselves for DoD's cybersecurity compliance."

- Nick Guthrie, Systems Administrator; EMC, Chesapeake, VA

How We Deliver Service & Value



Cheryl Carrico, Ph.D., P.E.
Program Manager for GO VA—
Retooling Virginia Manufacturers for
Strategic Industries



James Smith
Regional Growth Manager
Roanoke/New River/Lynchburg



Steve Dalton
Regional Growth Manager
Shenandoah Valley/Blue Ridge



Dave Bartlow
Regional Growth Manager
Northern Virginia



Aimee McCarthy
Regional Growth Manager
Central Virginia



Sam Wolford
Regional Growth Manager - Southwest Virginia



John Hagwood
Regional Growth Manager - Southside



Steve Holcomb
Regional Growth Manager - Hampton Roads

Where We Serve YOU - Regionally

Regional focus, local delivery, customized solutions

Our team is available throughout the Commonwealth to deliver customized solutions to eligible manufacturing, engineering and technology firms.

Our results-focused services bring Virginia companies of all sizes the right expertise, at the right time, at a great value. And we are focused on delivering services and solutions that will drive our clients' business growth, which means growth for the overall economic health of Virginia and jobs creation, too. Our low-cost, high-value services are designed to meet your team's unique needs so you can:

- **Innovate:** Gain insight to leverage innovation, respond to changing technology, and accelerate development
- **Compete:** Enhance your firm's global competitiveness, improve performance, and respond to a changing workforce
- **Grow:** Strategically accelerate your growth, develop new markets and customers, and commercialize new technology

GENEDGE Operations



Michael Levy
Practice Manager



Roy Luebke
Practice Manager



Nathan Sable
Practice Manager



Jeff Shook
Practice Manager

"Participation in this GO Virginia Retooling program has been a welcome and necessary transitional step for Breathe Healthy. It is helping to form a sustainable foundation to ensure continuity and control in our marketing process should a future crisis occur."

- Michael Vahey,
Owner of Michael
Vahey LLC, DBA
Breathe Healthy,
Williamsburg, VA



Our Customized Solutions Help Virginia's Manufacturers Solve Their Toughest Challenges

We have the resources and the expertise to deliver best-in-class solutions for Virginia's manufacturers.



"The process of putting together a commercialization plan was a great experience for us and a learning experience of thinking outside our box."

- Beattie Sturgill, Business Manager;
Indoor Biotechnologies, Charlottesville, VA

Trying to win contracts internationally, or with the DoD?

To compete, manufacturers must demonstrate compliance with national and international quality or safety standards. GENEDGE can help develop a quality assurance system, or audit an existing system, and identify solutions to close system gaps.



"We have found GENEDGE to be an invaluable partner in our growth, and LSS to be an outstanding tool in our process improvement methods."

- Mike Keyser, CEO; BARC Electric, Millboro, VA

Bringing a new product to market?

With an expertise in Strategy, Marketing & Commercialization, whether it's new products, new processes, or a new business model, GENEDGE helps companies identify innovative solutions and develop an execution plan.

Does the thought of an IT, or cyber attack keep you up at night?

Using a risk management framework, GENEDGE can help assess your company's risks and develop a plan to protect your critical information. We also can help you comply with specific cybersecurity requirements.

Smart manufacturing is the wave of the future!

Automation & Advanced Manufacturing, or Industry 4.0 could potentially be the answer to improving current processes. The experts at GENEDGE can help you find technological solutions that fit your business needs.



"The combined teams at GENEDGE and the IVY Group dug in and asked questions to understand the technical aspects of our new product for germicidal UV applications and provided marketing solutions. The program was a good value for our investment."

- Jim Raymont, Director Sales; EIT - Instrument Markets, Danville and Leesburg, VA

Struggling to fill open positions?

Finding and keeping your best employees is harder than ever. GENEDGE's experts in human resources, benefits, communications, and management can help create a workforce that not only delivers great work, but is engaged in helping your company succeed at the highest level.

Need support for engineering projects?

Can't find adequate technical resources? Want to improve your environmental footprint? Let GENEDGE help with project management, plant layout, new equipment sourcing, and installations.

Need to make significant cost improvements?

Need better reliability in your supply chain? Want to make decisions based on total cost and known risks? GENEDGE can help assess your supply chain and make it more effective and reliable.

Want to deliver better quality, faster at a lower cost, and still be able to invest in your employees?

GENEDGE provides coaching in various process improvement methodologies to help overcome roadblocks, and achieve breakthrough customer satisfaction and operating results.



"We undertook several projects with GENEDGE, each being critical in taking our business to the next level. Their entire team was very helpful, knowledgeable, and professional."

- Damien Deehan, Co-CEO; Verdex Technology, North Chesterfield, VA

With key partnerships and alliances, we have the ability to provide valuable resources to the manufacturing community in the Commonwealth to help support critical missions.

A Roadmap for Success - GENEDGE's program suite was developed to meet the needs of Virginia's industrial base:

Defend Controlled Unclassified Information (CUI) Program

Are you aware of the new wording in your contracts? Are you safeguarding your CUI? Do you have a security plan? No? We can help you. This program helps Virginia companies improve their cybersecurity for Controlled Unclassified Information (CUI).

GO VA — Retooling Virginia Manufacturers for Strategic Industries Program

For small and medium manufacturers with the capabilities to supply critical sectors, the GO VA — Retooling Virginia Manufacturers for Strategic Industries Program presents many valuable opportunities.

MedMMAP (Medical Manufacturers MedAccred® Accreditation PathwaySM)

Grow your sales in the medical device sector. Looking for a competitive edge to grow your medical device sales across multiple OEMs? MedAccred can help take your product quality to new levels – and ultimately reduce scrap, rework, and waste on critical processes.

Virginia Tech Grado Department of Industrial and Systems Engineering (ISE) Senior Design Program

Many manufacturing companies are busy running their day-to-day operations, and struggle to find the time, technical resources, and tools to address operational inefficiencies, solutions to unmet challenges, and facility design opportunities. This senior design program is designed to be the capstone, integrative experience that provides the basic skills needed to effectively plan, manage, and implement technical projects.

Engineering Makerspace and Invention Center (EMIC) at Old Dominion University

GENEDGE is proud to partner with the Engineering Makerspace and Invention Center (EMIC) at Old Dominion University. GENEDGE supports the EMIC to push the boundaries of innovation, solve the problems of the day, create jobs of the future, and have a direct and positive impact on the industries their students and faculty serve.

Virginia State University (VSU) Faculty Led Student Team

GENEDGE partnered with a VSU Computer Science Department student team to refresh the Total Cost of Ownership, or TCO Calculator. This allows manufacturers to better evaluate sourcing decisions using a 'Total Cost' methodology, which includes not only the piece price and transportation (landed cost), but also cost effects related to quality, risk, oversight, and supply and inventory resiliency.

Manufacturing DaySM

Manufacturing Day is a nationwide celebration of modern manufacturing meant to inspire the next generation of manufacturers.



FASTTECH LLC
A HARLOW GROUP COMPANY

"We found GENEDGE as an extremely knowledgeable and affordable resource for achieving our ISO 9001:2015 Certification. They provided an approach and framework which we found very helpful especially for a small business, like ours, with many daily demands and time constraints. We are glad we chose GENEDGE as our partner for this work and believe our client and business objectives will greatly benefit from this engagement."

– Alan Pearce, President & CEO; Fastech LLC, Danville, VA

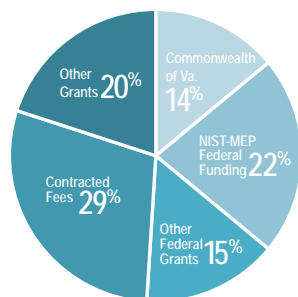
Mehler

"Due to increased quality requirements from the automotive sector, we recognized a need to upgrade our QMS. GENEDGE facilitated all aspects of this transformation by identifying high-quality third-party consultants, arranging for a GAP analysis of our existing system, and clearly defining a schedule for training, review, and workshop sessions focused on finalizing the necessary improvements. As a result, our business was able to successfully complete IATF 16949 certification which strengthens both our existing client relations and opens the door for future growth objectives in Southern Virginia."

– Joshua McArthur, Plant Manager; Mehler Engineered Products, Inc., Martinsville, VA

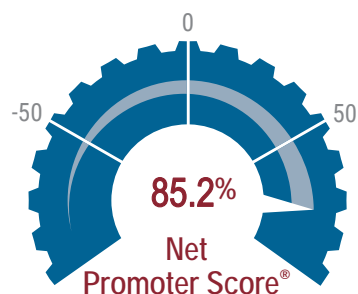
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Return on Investment

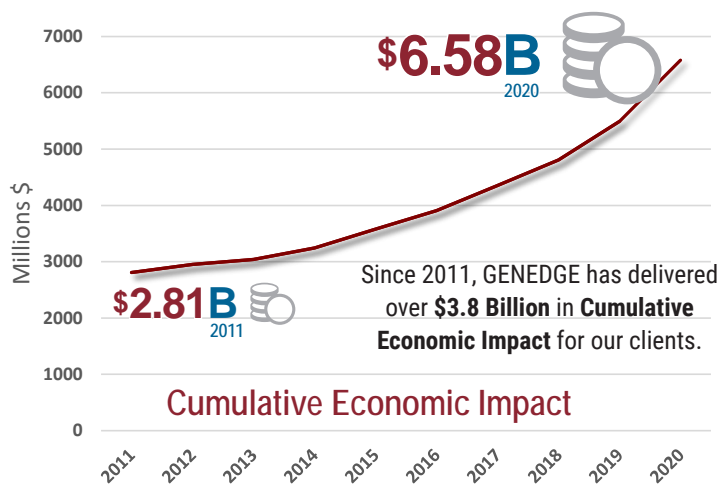


Projected Revenues FY2022

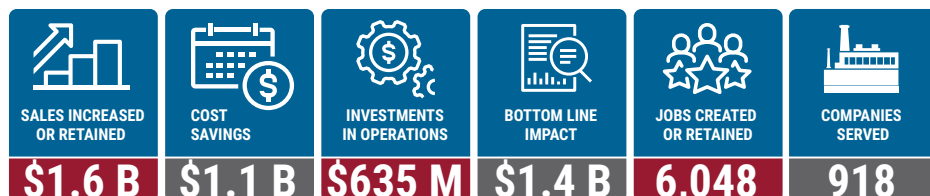
*Source: GENEDGE Budget



²Clients rated their customer experience well above industry benchmarks and indicate a strong likelihood of recommending the MEP Center, like GENEDGE, they worked with to another company or colleague.



2016-2021 GENEDGE Client Impact¹

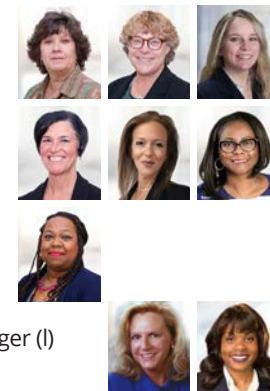


¹ Source: U.S. Department of Commerce / Independent Survey of Clients

² Net Promoter, Net Promoter System, Net Promoter Score, NPS and the NPS-related emoticons are registered trademarks of Bain & Company, Inc., Fred Reichheld and Satmetrix Systems, Inc. For more information about NPS and industry benchmarks for it, please visit <https://www.satmetrix.com/wp-content/uploads/2020/07/net-promoter-score-benchmarks.pdf>.

GENEDGE Administration

Brenda Bowman, Office & Security Manager
Cindy DeOms, Systems Administrator
Michele Faircloth, Accountant
Jeanne Grubbs, PHR, Human Resources Manager
Ashley Hudson, Administrative Manager
Connie Sharpless, Client Relations Specialist
Valerie Simpson, Executive Assistant; HR Assistant



GENEDGE Marketing

Linda Lancaster, Marketing & Communications Manager (I)
Jeanette Stevens, Marketing & Outreach Manager (r)

Key Alliances & Partnerships

GENEDGE values collaboration, and is grateful for the support and results achieved because of our strong relationships with the following key allies and partners.

Association of Energy Engineers
Batten College of Engineering and Technology at Old Dominion University
Center for High Performance Manufacturing at Virginia Tech
Commonwealth Center for Advanced Manufacturing
GO Virginia
James Madison University
NASA's Langley Research Center
Performance Review Institute
ReInvent Hampton Roads
Southwest Virginia Alliance for Manufacturing
Third Party Service Providers of GENEDGE
U.S. Small Business Administration
Virginia Community College System
Virginia Homeland Security Division
Virginia Department of Emergency Management
Virginia Department of Health
Virginia Department of Labor and Industry
Virginia Economic Development Partnership
Virginia Hospital & Healthcare Association
Virginia Innovative Partnership Corporation (VIPIC) / Formerly Center for Innovative Technology (CIT)
Virginia Small Business Development Centers
Virginia State University
Virginia Tobacco Region Revitalization Commission
Virginia Manufacturers Association



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