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Domestic Markets Expansion Program

DMEPVIRGINIA

Submitted to:

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Part 1 Executive Summary

GENEDGE is pleased to submit this report on our efforts to help companies diversify through the Domestic Markets Expansion Program (DMEP). DMEP assists Virginia Department of Defense supply chain companies, with 20 up to 500 employees, that are suffering from the effects of sequestration. We identify companies with leadership that has a desire to reduce dependence on DoD business by expanding their industrial and commercial offerings, and we provide the assistance they need to improve their business resiliency.

In FY 2016, GENEDGE continued to market DMEP across Virginia to about 2500 companies identified through analysis of the George Mason University database. We were fortunate to have the continued support of the Honorable Maurice Jones, VA Secretary of Commerce and Trade, who assisted us in a very effective direct mail campaign. Recapping Year 1 of the program, 62 companies attended workshops around the state. These companies identified over \$570 Million in sales and nearly 1500 jobs affected or at risk due to DoD cutbacks. 38 companies opted to apply, 34 applications were accepted and assessed with ultimately 22 companies selected for assistance.

Interest continued to be strong in the second year of the program with 59 companies attending the statewide workshops. The need is still acute with over \$130 Million in sales and over 850 Jobs affected or at risk due to DoD cutbacks. Building upon the success of the first year of the program, and incorporating some refinements learned through feedback from Year 1 company executives, the program has continued to meet its goals in Year 2 with 37 companies applying, 30 applications accepted and assessed, and ultimately 20 companies receiving assistance.

Summarized in this report are the stories of most of the companies we worked with in the second year of DMEP funding, that used strategic, innovative approaches to grow their businesses. We are pleased that 75% of the companies in Year 2 are already reporting projected impact (others are still in progress). The estimated company reported impacts from the first two years of DMEP total over \$206 million in annualized new sales, over 440 new jobs and over 175 retained jobs. These early results already exceed our promised sales revenue objective and exceed the expectations for job creation targeted by this effort. Our professional team biographies including our Program Manager, Dean Young are also included for reference. They have done an exceptional job for our clients.

We are extremely proud to have received an additional year of funding are off to a great start with an exciting and more targeted approach for DMEP year 3. We are very pleased that the program will have allowed us to reach nearly 10% market penetration, and provide for another sellout year. The need continues to be great. As we have learned from our clients in the first two years of the program, the opportunities are greater.

Bill Donohue

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Part 2 Background

> Effect of Sequestration in Virginia

Virginia continues to be the top state recipient of federal government contract awards. However, Federal procurement spending in Virginia declined by more than \$30 billion, or about 33%, from the fiscal year 2010 – 2015¹. 13.1% of the state GDP reflects a 12.8% concentration of total U.S. defense spending, equating to \$7,115 per resident². With DoD spending cuts extending into 2018 the direct impact on employment in Virginia is a projected reduction of 82,099 jobs³. Job losses in supply chain operations could be as high as another 82,126 jobs. ODU's December 2015 economic report¹ states Virginia's GDP grew only 0.02% in 2014 and predicts a 1.3% increase this year compared with national GDP at about 2.4%, with similar numbers in 2016.

➢ GENEDGE

GENEDGE is a consulting enterprise whose mission is to enhance the productivity and technological performance of Virginia's manufacturing and industry. GENEDGE is a Commonwealth of Virginia unit, with continuous operations since 1994. We deliver consulting based expertise and technology transfer to over 200 companies each year to improve competitiveness, create jobs and sustain employment. We do this by helping our clients strategically identify, develop and commercialize growth opportunities, increase productivity, lower costs, accelerate technology application, and strengthen team performance through services customized for the needs of individual enterprises. Our national affiliation with the Manufacturing Extension Partnership (MEP) network provides access to industry-wide services and proven, results-based solutions. GENEDGE affiliates also include the Manufacturing Technology Center (MTC) in Wytheville, VA and the Old Dominion University Center for Enterprise Innovation (CEI) in Norfolk, VA. For more info, please visit www.genedge.org

Program Goals

The goal of the Virginia Domestic Market Expansion Program is to help companies diversify their business models to be less reliant on DoD business to maintain their viability. GENEDGE has utilized the OEA funds to help companies create and execute business growth initiatives leading to new products, services, markets, sales, and the adoption of new technologies. The program also directly supports the Governor's initiative to develop the "New Virginia Economy".

Over 2,500 Virginia companies were eligible to participate in the DMEP program, the scope of which focused mainly on three sectors: Professional and business services, information technology, and manufacturing businesses that have a significant footprint in the DoD supply chain.

¹ ODU's Strome College of Business for the Virginia Chamber Foundation, December 2015

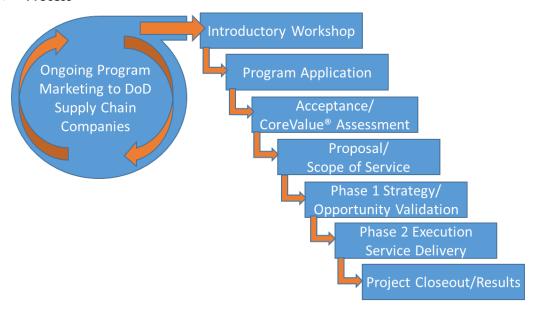
² DoD OEA report

³ OEA funded George Mason study



Part 3 Company Selection and Participation

Process



Methodology

GENEDGE used the OEA funded George Mason Study to identified Virginia companies within the DoD supply chain who would be impacted by sequestration and would be likely candidates for DMEP. We proactively reached out to these companies to build a pipeline of prospects.

Interested companies were required to attend an **introductory workshop** and apply for the program to verify that the company met key criteria such as company size, interest in diversifying to commercial markets, and effect of sequestration on their business. Introductory workshops were held in Northern Virginia, Hampton Roads, Western VA and Richmond to facilitate statewide opportunity for participation.

Applications were gathered via online submission and in person during regular prospecting efforts.

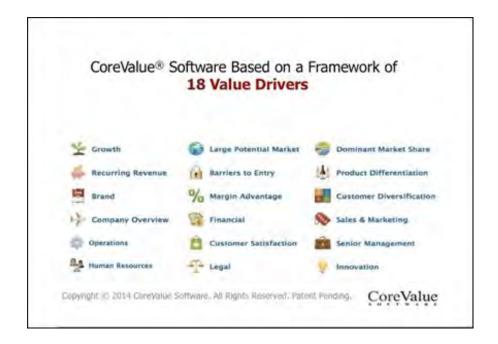
Companies were **accepted** for assessment based upon employment (20-500 employees); the effect of potential effect of sequestration; readiness for change; and the ability of executive management to devote time to the process.

The **CoreValue®** software tool was used to perform a business value assessment on the selected companies. A series of questions is asked regarding 18 Value Drivers in order to compare the company's status relative to best practices. Ratings are calculated, and the company's Enterprise Value⁴ is plotted and compared against an industry norm to estimate a value gap.

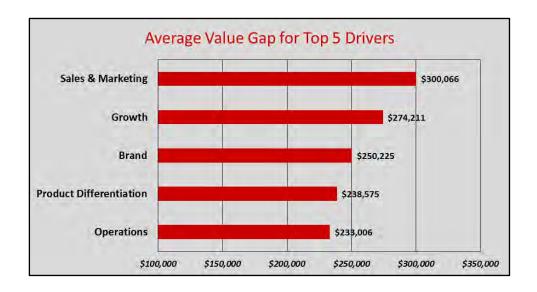
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⁴Enterprise value (EV) tries to measure the true worth of a business. More comprehensive than the market capitalization, it is often referred to as the takeover value – the amount of money required for an acquirer to buy a company at current market price, inclusive of cash, debt, and other items associated with a business.





On average the CoreValue® assessments of the participating companies showed the following Value Drivers that most needed to be addressed for the firms to achieve maximum Enterprise Value:



Custom proposals with specific plans for dedicated services, based on the results of the assessment were presented to each company. Most proposals began with a **Strategy /Opportunity** Evaluation:

 Structured systematic approach to help companies transform and evolve their businesses by developing new meaningfully unique product/service ideas that are dramatically different from existing offerings.



- The session revealed a number of strategic gaps, primarily in externally facing "Market" drivers, and internal strategic alignment necessary to deliver on long term strategic direction.
- In most cases, the assessment identified a solidly run company that had been historically successful in serving a few dedicated customers in the challenging DoD market but without a clear strategic focus for growth.

Phase 2 delivery services were executed to companies who signed on to their custom proposal – 90% paid by grant; 10% cost share by client.

Expected Services:

- · Strategic Planning for Growth
- · Innovation and Growth
- · Market Research
- ISO Management System Implementation
- Technology Driven Market Intelligence
- ISO System Certification
- · Commercialization Assistance
- FDA, UL, NSF, FCC, & other product certifications

- Web Design/Search Engine Optimization
- Supplier Scouting Services
- · Risk Management Analysis
- Total Cost of Ownership for focused commercial markets
- Value Chain Optimization
- · Prototype Development
- · Project Management

Services may be phased based on business needs or progress of engagements

Project close out was conducted with the company upon successful completion of the phase 2 engagement.

Schedule

Program Activity	1 st Q Year 2	2 nd Q Year 2	3 rd Q Year 2	4 th Q Year 2
Program manager	Х	Х	Х	Х
Outreach and awareness of program	Х	Х		
Outreach workshop schedule	Х	Х		
Estimated service delivery dates	Х	Х	Х	Х
Advisory board meetings	Х	Х	Х	Х

> Summary of applicants and acceptances

- Fifty-nine (59) companies attended one of eight Introductory Workshops
- Total of 37 Applications/30 Completed Assessments/20 Contracted
- The 37 companies accepted into the DMEP program for Year 2 estimated potential impacts from sequestration of over \$130 Million in Revenue and over 850 Jobs affected or at risk



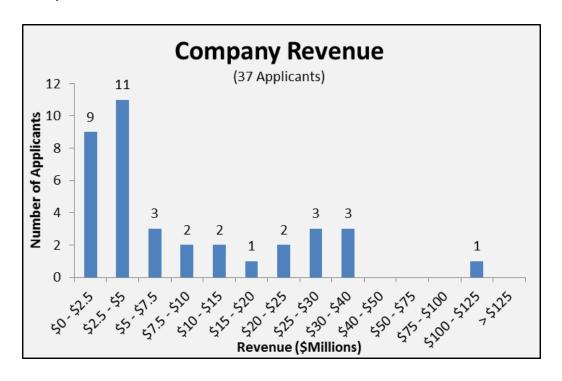
Participating companies



a. Demographics by size



b. By revenue



c. By geography



Part 4 Project Synopses

Participating companies



VA-DMEP Year 2 Participating Companies

	%		Empl				
Company Name	DoD			Business Description	City, State Zip	Website	
Ridgewood Technology Partners LLC	90	18	18	Technology consulting firm that delivers software solutions and professional support services to the Federal Government.	Reston, VA 20191	www.ridgewoodpartners.com	
Frontier Technology Inc.	engine the cha		25	Frontier Technology Inc. (FTI) provides competitive-edge engineering IT services and software products to meet the challenges of its Department of Defense and commercial customers	Chesapeake,VA 23320	www.fti-net.com	
BCF Solutions	85	200	34	provides systems engineering design integration installation and test services for various fixed and mobile C4ISR applications –particularly related to surveillance and specialized communications	Arlington,VA 22204	www.bcfsolutions.com	
Tiber Creek Consulting Inc.	90	150	125	Custom Software Development Operations and Maintenance	Fairfax,VA 22033	www.tibercreek.com	
NCN Technology	30	5	4	IT services specializing in web, mobile and sharepoint application development.	Reston,VA 20191	www.ncntechnology.com	
MYMIC LLC	100 72 62 Service oriented business, primarily supporting the DOD, Portsmouth,VA 23703 with capabilities including requirements analysis, training, IT support, business process modeling, and modeling and simulation.		Portsmouth,VA 23703	www.mymic.net			
Alliance Solutions Group	80	20	7	Prepares clients for a safe and secure tomorrow by delivering environmental health safety and emergency preparedness solutions.	Newport News,VA 23606	www.asg	
Marine Chemist Service Inc.	90	38	38	Provides environmental/safety services (asbestos lead mold confined spaces) inspections, laboratory, and training	Newport News,VA 23606	www.MarineChemist.com	
TATE Incorporated	95	210	74	We prepare training and technology programs for high- risk of capture active duty military personnel.	Alexandria,VA 22314	www.tate-inc.com	
Materials Modification Inc	90	10	10	We work in Materials and Manufacturing Processes and biotechnology.	Fairfax,VA 22031	www.matmod.com	
Aeroprobe Corporation	30	31	31	Aeroprobes Additive Friction Stir division is developing and working to commercialize a proprietary additive manufacturing method for metals and metal matrix composites.	Christiansburg,VA 24073	www.aeroprobe.com	
Computational Physics Inc.	80	25	12	Science and engineering related to space and weather.	Springfield,VA 22151	www.cpi.com	
Spectrum Comm Inc	100	239		Spectrum is a management and technology consulting company currently focused on support to defense acquisition and intelligence surveillance and reconnaissance (ISR) applications.	Newport News,VA 23606	www.sptrm.com	
Steel America	65	700	695	Steel America is a custom steel fabrication shop and large scale NAVSEA approved machining service provider with complex mechanical and electrical capabilities. It has a unique ability to fabrication heavy high-cube structures up to 1000 metric tons in modular form for delivery by barge directly from the shop to waterborne project locations.	Norfolk,VA 23523	www.steelamerica.net	
R&K Cyber Solutions LLC	100	22	22	R&K Cyber Solutions is an innovative 8a SDVOSB currently providing Cyber security Research and Engineering Services to the Federal DoD and Intelligence Community.	Manassas,VA 20109	www.rkcybersolutions.com	
Integrated Textile Solutions, Inc	80	75	75	Provided businesses with manufacturing solutions since 1936, including contract manufacturing of military industrial and specialty textile products and apparel. ITS can provide custom sewing, Gerber automatic cutting,	Salem,VA 24153	www.intextile.com	
RightStar Inc.	45	58	24	RightStar is an IT Consultancy focused in the service management space. We are also a solution provider for BMC Software and Atlassian. Additionally we develop add-on products like SSO/PKI for use with BMC products.	Vienna,VA 22182	www.rightstar.com	
Pal Technologies Inc. (dba Paltech)	10	40	38	Paltech is a professional services company offering training technical assistance and engineering services	Arlington,VA 22209	www.pal-tech.com	
SYNEXXUS INC	75	25	24	SYNEXXUS provides engineering services and high-end computing products and displays to government defense and commercial markets.	Arlington, VA 22201	www.synexxus.com	
NVIS Inc.	90	7	7	We design and manufacture virtual reality displays for immersive training and simulation	Reston, VA 20190	www.nvisinc.com	

> Individual representative case studies are in the Appendix

> Financial report/statement

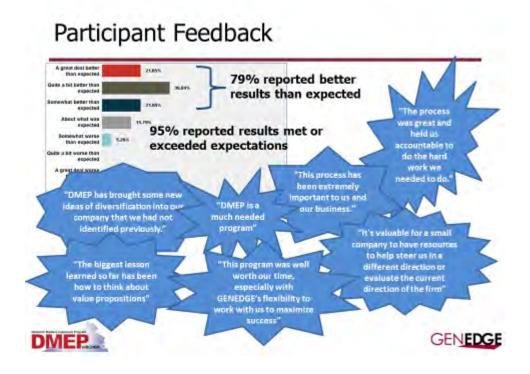
	Project		Project				GENEDGE		Remaining		
Budget Line Item	Budget		•	Total Costs		OEA	C	Cost Share		Budget	
Personal Services	\$	102,331.00	\$	60,845.22	\$	26,771.91	\$	34,073.31	\$	41,485.78	
Travel	\$	32,670.00	\$	23,083.61	\$	-	\$	23,083.61	\$	9,586.39	
Contractual Services	\$	200,000.00	\$	199,966.53	\$	199,966.53	\$	-	\$	33.47	
Other	\$	1,711,000.00	\$	1,698,050.19	\$	1,529,767.69	\$	168,282.50	\$	12,949.81	
Total Direct Costs	\$	2,046,001.00	\$	1,981,945.55	\$	1,756,506.13	\$	225,439.42	\$	64,055.45	

Note: Remaining budget of \$64,055 turned back to VA program manager for other uses during execution year as requested.

Leadership exchange feedback

In June, a Leadership exchange was held to bring together company principals from companies served in both Year 1 and Year 2 of the program to share stories and establish a learning community. The executives also met with Secretary of Commerce and Trade Maurice Jones to discuss how this effort fits with Governor McAuliffe's efforts to build a "New Virginia Economy". This initiative is focused on a strategic diversification from the historical heavy reliance on DoD and other forms of federal spending. Lessons learned helped inform the revised approach funded for the year 3 effort.

Results from a survey on the effectiveness of the program:





Performance vs Metrics

Through <u>first two years</u> of the program, 27 of 42 companies reported in a confidential manner their projected impact as of 2/7/17:

	DMEP	Year 2	DMEP Total (Year 1-2)		
Metric	Target	Actual	Target	Actual	
No. of companies attending workshop	65	59	155	121	
No. of companies assessed	40	37	85	75	
No. of companies assisted	20	20	40	42	
Annual Growth	\$32 MM	\$35.3 MM	\$64 MM	\$206.7 MM	
Jobs	162	114	324	618	
Investment	N/A	\$1.8 MM	N/A	\$4.5 MM	
Cost Savings	N/A	\$2. MM	N/A	\$3.1 MM	

In addition, the funding in the <u>third</u> year of the program was competitively awarded based on business plans for targeted diversification opportunities. The 12 companies approved for funding have estimated their projected impacts from Year 3 as:

- \$163.9 million in new and retained sales
- 313 new or retained jobs
- \$10.8 million in investment
- \$1.9 million in cost savings

Given that growth is a medium to long term outcome, GENEDGE expects to realize about 1.5 times the growth, investment, jobs and cost savings results with full client reporting.



Appendix

- Case studies
- Visit GENEDGE's YouTube Channel to view select DMEP Client Testimonials: http://tinyurl.com/hh7efzv

DMEP Year II Clients:



http://tinyurl.com/jgtaj4m



http://tinyurl.com/hrb79uz



http://tinyurl.com/j8kqpky

DMEP Year I Clients:





http://tinyurl.com/z6lqkn9



http://tinyurl.com/hrp2yjx

➤ Delivery Team Bios



CEO Nanci Hardwick says, "The GENEDGE program was critical to our success in transitioning this new technology to market. Identifying advantages in specific markets gave us target applications and customers. Access to technical research and technical services has substantially advanced our progress towards process maturity. We are grateful to have been a participant in this impactful program."

Company Situation Prior to GENEDGE Engagement:

Aeroprobe is a leading producer of air data and flow measurement systems, primarily to DoD and industrial customers. Combined, their probe and data analysis software allows for the collection of both pressure and velocity data within complex and specialized environments. Located in Christiansburg, Aeroprobe has 28 employees. In parallel to probe operations, Aeroprobe has developed a new capability in the additive manufacturing market called Additive Friction Stir (AFS). Mainstream additive manufacturing offers many advantages over traditional subtractive manufacturing processes in the areas of cost and speed. The application of AFS technology offers even more advantages in the areas of speed, quality, reduced costs, process flexibility, and product customization. This technology is being explored by general manufacturing companies as well as specialized businesses in aerospace, automotive, and shipbuilding for part manufacture, part coating, and part repair. The technology is still in research and development with some process improvement opportunities.

The Strategic Objective (Phase 1 Services)

- · Identify and prioritize non-DoD commercial opportunities for AFS.
- · Identify business model options for (AFS) offerings and their value proposition(s).
- Based on the value proposition(s), select business model(s), identify and prioritize critical "must do's" to meet commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

- Aeroprobe's AFS Technology exhibited strong interest from multiple industrial sectors and multiple business models including AFS equipment sales and AFS technology licensing.
- Based on GENEDGE research, Aeroprobe's AFS Technology has several benefits over their competitors. However, the
 research also showed that Aeroprobe's AFS Technology is lagging competitors with respect to the manufacturing process
 maturity. Specifically, the AFS process is not able to operate autonomously due to machine loading and quality
 adjustments.
- To meet any of the Aeroprobe AFS business models, AFS process maturity must be addressed.

The GENEDGE Service Solution (Phase 2 Delivery)

- Market Research: Technology Driven Market Intelligence (TDMI) helped the company understand its technology relative to
 competitors and other similar technologies, to quantify market opportunities and to drive focus on the critical items needed
 for success in the equipment sales and technology leasing business models.
- <u>Ideation:</u> Through a joint effort with NASA, identified options to address the material loading challenge. Automated material loading is key for the process to be run in a more automated way.
- <u>Ideation:</u> Through a joint effort with Virginia Tech, developed a closed loop control to automatically adjust process parameters when specific process or product scenarios occur.

- Market research enabled Aeroprobe to understand its market position and to understand the urgency of resolving key process maturity issues with the new technology and process.
- Developing solutions for the above referenced AFS process maturity issues provides Aeroprobe with a more marketable product, equipment and process that is manufacturing ready.



CEO Robert Campbell says, "GENEDGE through the DMEP program greatly enhanced our innovation cycle and gave us the tools we needed to accelerate commercialization of our defense-centric services. They helped us identify and close our value gaps throughout the process of translating concepts into new offerings. Because of the dedicated GENEDGE staff, we are on a positive growth trajectory that will have an impact on our business over the next decade."

Company Situation Prior to GENEDGE Engagement:

ASG's current portfolio is service-driven and is dependent on trends and demand for services in Environmental Health & Safety and Emergency Management markets. Outside of DoD, indicators are strong that emerging opportunities may exist in niche environments such as hospital infectious disease control and MRO facilities analogous to the current USAF market. However, lack of insight on these niche market needs was hindering commercial investment planning. Even though non-DoD customers share the same domain of basic needs as customers such as the USAF, ASG recognizes that non-DoD value networks are likely radically different and tend toward commoditization. After long success in the DoD space, ASG is searching for deeper insight on products and services that would excite commercial businesses, versus available commodities.

The Strategic Objective (Phase 1 Services)

- · Gather as much research insight as possible from niche markets unfamiliar to ASG.
- Assess the size and characteristics of analogous markets, such as MRO.
- Establish a "lead offer" to break ASG through a crowded consumer space, then create awareness around a knowledgeable, expert brand persona that nurtures interested customers throughout their lifecycles.

The Strategic Opportunity (Phase 1 Services)

- Conduct targeted industry and end user research to evaluate industrial and manufacturing markets.
- · Evaluate the competition and develop a "lead user" pull-through product to enter commercial business space.
- · Develop a logo and other branding elements to distinguish ASG among the other players in this crowded space.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Innovation assistance</u>: GENEDGE facilitated ideation to help the ASG team enhance their existing strategic innovation process.
- <u>Industry research</u>: GENEDGE contracted with a market research firm specializing in industry and economic research targeted toward MRO's.
- Marketing Support: GENEDGE helped source agency branding experts to develop/validate the brand name "EASY EHS," then create a stylish logo reflective of the target market and their jobs in the EHS space.

Results

"EASY EHS" is currently under development and scheduled to launch as prototype trial in spring 2017. EASY EHS is the only tool available for the lay user to begin understanding the complicated world of environmental, health and safety requirements.



Founder and CEO Brady Foster says, "The DMEP program was instrumental in helping us realize we needed to think differently for our capabilities to evolve in today's economy. The development of new ways of doing business has helped open a new market segment we would have never otherwise tapped."

Company Situation Prior to GENEDGE Engagement:

- BCF Solutions, Incorporated (BCF) was founded in 2003 and is a professional services firm with approximately 140
 employees. Headquartered in Chantilly, Virginia, BCF's main focus is the design, testing, and fabrication of physical security
 systems for the Department of Defense. The company is ISO 9001:2008 Certified.
- The company had lost a major DoD contract and reduced its workforce approximately 50%, with a similar loss in revenue percentage. The company had also purchased two small engineering integration companies.
- BCF's leadership desires to develop commercial markets by leveraging its core capabilities and competencies to grow the company and reduce its reliance on the Department of Defense contracts.

The Strategic Objective (Phase 1 Services)

- · Identify and prioritize non-DoD commercial opportunities.
- Identify highest-value service offerings and develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

- Some of BCF's strongest capabilities in optical and thermal systems and surveillance, tactical communication systems, engineering and integration appeared to be a match in high growth markets such as commercial buildings, utilities facilities, and integration with cyber security needs.
- Internal processes that support marketing and business development were not defined sufficiently, nor mature enough, to support growth in those new markets.

The GENEDGE Service Solution (Phase 2 Delivery)

- Market Research: Helped the company quantify market opportunities and prioritize sales efforts in the Data Center Facilities market.
- Concept Development: Helped BCF's leadership and key employees develop a value proposition for customized video surveillance, intrusion detection, communication, and building access control system design and implementation service specifically tailored to the needs of data centers. BCF installs equipment and software from a wide variety of best-in-class vendors to deploy in extreme environmental locations. The new service focus is to be provided as a new service geared toward high growth Data Center Facilities market.
- <u>Content development:</u> Benefit statements and functional overview material was created for use in marketing and sales collateral and web site use.

Results

Market research results enabled marketing and business development to segment and prioritize marketing efforts. Findings enabled immediate action in sales, with focused messaging to targeted service providers in the global Data Center Facilities market.



CEO Steve Berg says, "GENEDGE provided us with valuable guidance and support in getting our commercialization ideas on track. We would have wasted valuable time and probably focused on the wrong markets without assistance from the DMEP program."

Company Situation Prior to GENEDGE Engagement:

Computational Physics, Inc. (CPI), is a firm with longstanding and successful relationships with DoD customers, providing solutions to problems sought after in agency requests for proposal. As a result of years of developing scientific solutions for DoD and other agencies like NASA, CPI boasted an impressive portfolio of product-service bundles for remote sensing applications, as well as modeling and simulation applications. The recent acquisition of a hardware provider enhanced CPI's capabilities even more. However, like many DoD suppliers, these solutions focused the firm primarily on DoD problems, and did not encourage exploration into commercial customer markets.

The Strategic Objective (Phase 1 Services)

- Apply research to highest value target markets and best ideas.
- Create a compelling offer around a key product in order to launch at least one practice out of the government portfolio and into the commercial space.
- Unify the newly acquired company under one CPI brand.

The Strategic Opportunity (Phase 1 Services)

- · Research the market demand for capabilities in CPI's aerial imaging portfolio of products.
- Position the GMD division for new product launch coinciding with pending regulations in the transmission utility market.
- Create one company brand and merge three independent websites into one CPI site.

The GENEDGE Service Solution (Phase 2 Delivery)

- Innovation assistance: GENEDGE facilitated rigorous criteria mapping and portfolio analysis to identify a manageable set of potential offerings.
- <u>Technology Acceleration</u>: GENEDGE contracted Research Triangle International to provide Technology Driven Market Intelligence focused on CPI's ImageTool for amateur astronomers.
- Marketing Support: GENEDGE helped source an agency branding expert and a website developer to help unify the brand.
- <u>Commercialization Assistance:</u> GENEDGE contracted with a mobile app developer to help CPI create the only
 mobile geomagnetic disturbance monitoring device available AVERT to transmission utilities for compliance with
 pending regulations.

Results

An AVERT app is now available in Android and iPhone stores for use by anyone who wishes to download it. CPI will use this product to engage with various segments of the transmission utility market in an ongoing educational campaign. CPI is also in trial with AEP, the nation's largest transmission utility, to evaluate their space hazard monitor ("SHM") for compliance with new monitoring regulations.



Vice President Dr. Michael Weatherly says, "GENEDGE and the DMEP program were instrumental in propelling our small business forward within a very short period of time. They were able to identify core capabilities that were transferable to the commercial space and identify markets where those capabilities would provide the biggest return on investment."

Company Situation Prior to GENEDGE Engagement:

Like many DoD service providers planning for the future, Frontier Technology's (FTI) business model hinges on services driven by specific technologies linked to specialty contractors who can put packages together to compete collaboratively for government business. These include project management and technology implementations in myriad personnel, machinery and system environments, as well as technology acceleration programs funded by various agencies. As a result, Frontier Technology is now essentially a "home" for many specific things the government is trying to do. The resulting technology and service portfolio is impressive, and leadership has stated a clear strategic intent to commercialize – wherever possible – using existing capabilities.

The Strategic Objective (Phase 1 Services)

- Re-explore the overall vision of the company to include non-DoD markets.
- Evaluate and prioritize existing portfolio offerings for non-DoD market introduction.
- Evaluate industry attractiveness for priority portfolio opportunities.
- Create a first generation "look and feel" brand more aligned to non-DoD markets.

The Strategic Opportunity (Phase 1 Services)

- Engage leadership and top management in external strategic thinking exercises.
- Create a "market match" for the firm's most attractive portfolio offerings.
- Conduct industry research to validate need in specific industries for high value portfolio offerings.
- Position FTI with a visual "look and feel" more reflective of commercial target industries.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Strategic Alignment</u>: GENEDGE engaged FTI leadership in visioning exercises and rigorous evaluation of their current technology portfolio to prioritize highest-value candidates for launch.
- <u>Industry Research:</u> GENEDGE contracted with industry research experts to evaluate several industrial environments analogous to DoD training and technology domains facilitative to FTI's strengths.
- Marketing Support: GENEDGE contracted with a branding agency and web developers to refresh FTI's outdated website.

Results

FTI is currently in negotiations with Airbus to deploy one of its key asset lifecycle management technologies. This significant opportunity in the commercial "fleet" space with this particular technology was a key focus area during strategic alignment, and in achieving the goal of entering commercial target markets that look very much like the "fleet" environments of the DoD.



President David Thornhill says, "The DMEP program led by GENEDGE has taken the team at ITS through an organized and well documented innovation process that has allowed us to capitalize on new products and new markets of business that will help to solidify the company's growth into the commercial space."

Company Situation Prior to GENEDGE Engagement:

Integrated Textile Solutions (ITS) is a Woman-Owned Small Business manufacturing in Virginia since 1936. Key capabilities include the latest custom sewing, Gerber computerized cutting, fabric welding, and customer R&D. Over the past decade, ITS found success in supplying U.S. warfighters in the Middle East with high quality, military-grade sewn expeditionary gear and equipment. However, within the DoD contracting environment, ITS was positioned as a contract manufacturer in the value chain, typically to a prime or distributor. While advantageous, this arrangement limited ITS's ability to builds its own product and brand.

The Strategic Objective (Phase 1 Services)

- · Identify and prioritize non-DoD customer needs based on current network, skills and capabilities.
- Identify any newly emerging, "next generation" product needs, especially where trend research revealed a capability match.
- Select a few of the best products to populate the first positions in a new product portfolio.
- Develop brand elements to distinguish those products from the competition.
- Build and e-commerce platform to accelerate launching of those products and direct engagement with end users.

The Strategic Opportunity (Phase 1 Services)

- · Identify target markets and equipment that "smell" like DoD end users.
- Use quality-driven production and assets to gain competitive advantage immediately in very narrow, high end, or difficult-toachieve product performance categories.
- Develop a logo, tagline and e-commerce platform to drive brand awareness for the new products.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Innovation Assistance</u>: DMEP funding enabled the ITS leadership team to identify strict criteria and narrow down specific target markets for its new products; among them are law enforcement, first responders, veterans, competitive shooters and 2nd Amendment markets.
- <u>Ideation</u>: GENEDGE facilitated ITS leadership and key employees in the rapid development of value propositions based on strategic intent to engage with those markets. The result was a new family of tactical nylon gear called "US Marksman."
- Competitive Analysis: With the help of honors students from Virginia State University, a rigorous examination of the top seven shooting gear bags yielded design requirements for the "MURFE" bag (Multi Use Firearms and Range Equipment bag). It is one of only a handful available to the target market that is 100% sourced and made in the USA and features military utility, styling and quality.
- <u>Marketing Support:</u> GENEDGE helped source agency branding experts to develop the brand name "US Marksman," then a logo and product photos, as well as a web development company to help launch an e-commerce effort on Shopify.

Results

The MURFE bag is the first product out of the gate for the US Marksman tactical nylon brand. The first generation design prototype is complete and ITS is engaging industry opinion leaders and end users to improve the second generation. A second product, US Marksman Soft Body Armor, is being tested to meet Level-II and Level-IIIa ballistic threat levels.



CEO B.K. Gogia says, "GENEDGE provided experienced, professional consultants who are focused on the needs of smaller, emerging and mid-sized companies seeking support in commercialization and growth. They provided key services and support during the early stages of our new product launch. I would recommend GENEDGE to any company seeking strategy development, marketing, growth or process improvement needs."

Company Situation Prior to GENEDGE Engagement:

In late 2015, R&K Cyber Solutions, based in Manassas, Va., was supplying cybersecurity services principally into the Federal Government workplace. They foresaw potential revenue issues with sequestration and the resultant budget cutbacks. The firm was looking to diversify into a broader commercial space and applied to the GENEDGE DMEP program. At this time, the company was also engaged with ORNL on the development of a new anti-malware technology named Hyperion. Hyperion is based on a remarkable new approach that computes the behavior of the code at the chip level to reveal malware that other techniques can miss. A licensing agreement was in place and preparations for release underway.

The Strategic Objective (Phase 1 Services)

Initial work focused on both R&K Cyber Solutions and the newly emerging Hyperion product. It was soon clear that the
greatest opportunity for growth was with the new Hyperion product. During this period, a new company, named Lenvio, was
created with the intent of bringing the Hyperion product to market. Pilot testing of the product in various environments was
underway.

The Strategic Opportunity (Phase 1 Services)

- Identified and prioritized non-DoD opportunities. These included various diverse industries such as Finance, Healthcare,
 Software Development, Industrial Manufacturing, etc.
- · Considered the actual customer need and developed initial client personas. Developed corresponding value proposition(s).
- · Evaluated and articulated what differentiated Lenvio's value proposition from other company offerings.
- Evaluated Lenvio's current capability to support a commercialization effort and helped identify gaps in Lenvio's resources. Developed a plan to address these gaps in the Phase 2 delivery.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Market Research:</u> Researched trends in the cybersecurity industry. Helped the company quantify market opportunities and prioritize sales efforts in several industries, including some one-on-one discussions with potential future clients.
- Marketing Collateral: Initial brand development and face to the market content was developed.
- · Value Proposition: Worked on developing value propositions based on addressing identified customer needs.

- Market research results and industry feedback enabled a more focused message to be delivered to targeted industries.
- · An effective brand identity was developed with potential to support an effective online presence.
- · A business plan for the commercialization effort, including investor presentations, and web site design was developed.
- · Plans and initial estimates for revenue growth and future job creation were developed.



President Robbie Walker says, "Working with the GENEDGE team has been a pleasure. They have helped us through the conception of an idea up to implementation of an exciting new technology. We are hopeful this revenue stream will not only bridge the gap from past lean years of providing products and services for the Department of Defense but also be a new division that stands on its own right if and when DoD work returns."

Company Situation Prior to GENEDGE Engagement:

Marine Chemist, like other DoD suppliers, was challenged by lack of visibility and understanding of opportunities which may reside outside of their DoD space. It has a long, established track record of specific expertise with well-respected and mature products and services, but lacks the market planning resources to generate new ideas and execution strategies for non-DoD business growth. These gaps are typical with mature, DoD business structures and involve a desire to grasp revenue-driving fundamentals such as size and characteristics of adjacent commercial markets, competition and value propositions that may resonate in non-DoD markets. A structured process to clarify market opportunities and match high-value products with the best available markets will help launch and inform repeatable Sales & Marketing behaviors, as well as help kick-start Growth-enabling investments for emerging opportunities.

The Strategic Objective (Phase 1 Services)

- Identify and prioritize non-DoD commercial opportunities.
- Identify highest-value service offerings and develop corresponding value proposition(s) to meet emergent commercial
 opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

- Leverage Marine Chemist Service's strong capabilities in Confined Space training in the shipyard environment into an
 offering to match the requirement for Confined Space training in construction driven by the introduction of a new OSHA
 standard requirement.
- Transition training from in-person delivery to an online training format to achieve rapid market penetration on a broader scale.
- Develop marketing processes such as customer behavior modeling and segmentation to help target customers more
 efficiently and deliver the most effective experience possible for online training in Confined Spaces for Construction, versus
 the competition.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Concept Generation:</u> Helped MCS's leadership and key employees develop a value proposition and target customer profile for new training offering
- Market Research: Helped the company validate the online training platform to be used and inform product development.
- <u>Market Planning:</u> Facilitated development of a marketing plan for the integration of online training capability into the current MCS website. This plan includes the initial setup of automated marketing tools, plus coaching on the ongoing management of the process that will drive customer traffic to the online training solution.
- <u>Prototype LMS Development:</u> Helped MCS access training for the production of superior online content development, which
 ultimately merged MCS's existing knowledge base and in-person training content into a single, high impact delivery vehicle.
 The development of an online Learning Management System integrated into the current MCS website allows for direct
 online purchase and instant delivery of Confined Space training, enabling construction industry end users to respond
 effectively and meet the new OSHA standard.

Results

A new online training platform is in the last stages of development and will be integrated with the current MCS website. This platform provides a portal for delivery of the initial online content developed for Confined Spaces in Construction training to address the new OSHA standard requirements. MCS received training to develop more effective online content, and the platform provides further growth opportunities to deliver additional content as it is developed to meet other emergent market needs. The implementation of the marketing plan ensures a sustainable market development strategy: it helps MCS target new customers more effectively and efficiently as opportunities arise. It also supports the management and nurturing of existing customer relationships with new offers and engagement opportunities on a periodic basis.



President and CEO Dr. T.S. Sudarshan, Ph.D. says, "The number of connections we were able to make within Virginia was very significant – without the efforts of GENEDGE we would have never found each other with so many synergistic goals towards products."

Company Situation Prior to GENEDGE Engagement:

- Materials Modification, Inc. (MMI) is engaged in the research and development of advanced materials utilizing novel
 processing techniques. MMI is dedicated to providing creative solutions in materials science based on nanocrystalline
 metals and ceramics. MMI's leadership wanted to create a market niche in value-added products using their newest
 materials inventions. MMI's primary intent is to develop technology that leads to products with significant value by partnering
 or licensing agreements with other companies.
- MMI leadership was having difficulty engaging with potential partners who could understand and commercialize their new inventions.
- · MMI had multiple new inventions and was having difficulty prioritizing its business development focus areas.
- MMI relies on SBIR grant-funded development efforts for DoD agencies for its business growth.

The Strategic Objective (Phase 1 Services)

- Identify and prioritize non-DoD commercial opportunities.
- Identify highest-value service offerings and develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

- MMI's strongest capabilities are its expertise in advanced chemistry and materials science to invent new materials. MMI had
 invented ten unique products with application capabilities for oil and water repellency, motor engines, radiation shielding,
 bandages and wound care, ballistic ceramics, powder coatings and flame retardancy.
- Internal processes that support focused business development were not defined sufficiently, nor mature enough, to choose
 a preferred market and approaches to growth in those new markets.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Market Research:</u> Helped the company quantify market opportunities and prioritize business development efforts to textile manufacturers that use a banned repellency chemical to treat their textiles.
- <u>Business Development:</u> Helped MMI's leadership and key employees develop a value proposition and target partner contact list. Assisted MMI's leadership in contacting potential partners and engaging them in business discussions.

- Market research results enabled MMI to segment and prioritize marketing efforts. Findings enabled immediate action in business development with focused messaging to targeted textile manufacturing companies.
- Several potential business partners are conducting materials testing to gauge technical performance, materials applicability to end use and manufacturing readiness.



President Sharon Muniz says, "Working with the GENEDGE team helped shape our companies focus and determine the market direction we would like to take in 2017. Researching and analyzing the hospital market related to our IT capabilities has created a strong foundation as we begin to explore new opportunities. The team also provided two exciting project opportunities with other GENEDGE clients that resulted in immediate revenue for 2016! Thanks, GENEDGE!"

Company Situation Prior to GENEDGE Engagement:

NCN Technology provides web, mobile, and SharePoint application development, web development, and search engine optimization. They saw their business decline over the last couple of years and wished to regain focus. They recognized an opportunity to move into non-DoD space.

The Strategic Objective (Phase 1 Services)

- Prioritize non-DoD commercial opportunities.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

 Based on Phase 1 services, the direction of NCN was re-evaluated to determine if they could provide the desired long term grow and movement into non-DoD markets. Target industries of interest with headquarters in Northern Virginia were identified.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Market Research:</u> Helped the company quantify market opportunities and prioritize business development efforts in the hotel management and hospital healthcare markets.
- · Helped NCN begin to develop a brand image.

- As part of the DMEP working group, they were able to identify and connect with two other DMEP clients for potential business development.
- The program also provided funding for NCN to become a Microsoft SharePoint partner providing other non-DoD business opportunities.



CEO Marc Foglia says, "The DMEP Phase I/II program has provided NVIS with the resources to move forward with an innovative product development opportunity that would otherwise have not been financially possible. GENEDGE provided the project management guidance to help NVIS better understand our target market. Once product development started, NVIS engineers were able to focus on the R&D effort while GENEDGE funded and managed the external resources to have our prototypes fabricated. We are now positioned for the DMEP Phase III program to reach out to prospective customers with functional prototypes for sales and marketing activities."

Company Situation Prior to GENEDGE Engagement:

NVIS Inc., is an ISO 9001:2008 certified company specializing in the manufacture and design of near-eye display systems, or, "virtual reality displays." They are designed specifically for immersive training and simulation, primarily for DoD applications such as head-mounted displays, virtual binoculars and custom displays for vehicle and weapons simulators used in warfighter training. Recently, a value chain partner informed NVIS of a potential breakthrough opportunity in the supply of 3-D Metrology projection components to OEMs outside of the DoD. This required immediate business model generation in the areas of pricing, volumes, offers, market segments, business case analysis and channel partnering, as well as assessing overall competitiveness.

The Strategic Objective (Phase 1 Services)

- Define the addressable opportunity in U.S. and global 3D Metrology markets, focusing on U.S. value chain opportunities and development partnerships.
- Perform a competitor analysis and define the technology landscape and maturity of various structured light projection technologies.
- Define parameters for the development of an initial prototype for a structured light projector vs. the competition.
- · Outline a series of value propositions for each defined marketing channel.

The Strategic Opportunity (Phase 1 Services)

- Perform specialized market research to characterize the size, characteristics and partnering opportunities both globally and in the U.S.
- Create a matrix of competing technologies to validate the NVIS technology as emerging with potential for growth.
- Generate concepts and market forecasts for an initial structured light projector offer to various market channels and application segments.

The GENEDGE Service Solution (Phase 2 Delivery)

- Market research: GENEDGE contracted with an industry expert to generate a comprehensive landscape overview using primary and secondary research.
- <u>Prototype development:</u> GENEDGE contracted with firms specializing in engineering and design services to build a
 "demonstration" prototype to be used in an initial marketing launch of their concept; services include LED driver board
 design, enclosure design, optics design and fabrication of all components.

Results

Prototype development of the first NVIS projection engine is underway and scheduled to launch in demonstration mode during 2017 as part of a comprehensive marketing and business development effort based on direct engagement with OEMs in the 3D metrology space. The goal is to validate the technology with key partner targets and improve or customize the prototype in successive generations in order to meet emerging requirements of select customers in various applications, especially the Solder Paste Industry.



President Omar Kader says, "GENEDGE expanded our horizons by encouraging Paltech to look beyond the DoD space. GENEDGE helped us focus by arranging meetings with the exact type of experts we needed to make this move. GENEDGE has progressed us into developing our new product/service, for which we are excited and appreciative."

Company Situation Prior to GENEDGE Engagement:

Paltech provides custom training in the governmental space. They saw an opportunity to move into non-DoD/governmental space.

The Strategic Objective (Phase 1 Services)

- Explore and analyze non-DoD commercial opportunities.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities in growing or regulated industries.

The Strategic Opportunity (Phase 1 Services)

Paltech identified a need in the cybersecurity space. Focus was needed to assure that they were entering a space that was
not occupied by the competition and they could believably offer a product/service that filled a need and could generate a
profit. Initially they were considering using a partner strategy. Based on Phase 1 services, partners were re-evaluated to
determine if they could provide the desired long term growth and movement into non-DoD markets.

The GENEDGE Service Solution (Phase 2 Delivery)

- Market Research: Helped the company quantify market opportunities and prioritize sales efforts in the cybersecurity market. Also, explored best practices in adult learning.
- Helped Paltech begin to develop a brand image for partnering by bringing non-DoD capabilities to their website.

- Paltech was able to highlight their unique capabilities in various non-DoD markets with the goal of attracting customers.
- Market research results enabled business development to segment and prioritize marketing efforts. It also helped craft their marketing message.



President Dick Stark says, "We have grown our Atlassian business considerably this year. GENEDGE assisted with our recruiting and management strategy and also helped with a business model and software forecasting for new software products. We have begun ScanStar for JIRA and the results of this won't be seen until 2017. Thanks for your help!"

Company Situation Prior to GENEDGE Engagement:

RightStar is a government consultant focused on I.T. Services Management. Many firms in this space are affected by an enormous market shift toward "agile" software development methodologies (getting software to market faster). In this highly competitive market, RightStar faces continuous and complex challenges to growth, ranging from commoditized delivery landscapes to constraints from its own technology supplier, some of whom are also competitors. Although a clear, service-based value proposition remains elusive, a breakthrough opportunity with a key technology supplier re-invigorated leadership's will to evaluate its existing portfolio and commit to a new product development process.

The Strategic Objective (Phase 1 Services)

- Examine the current industry, its players and service opportunities to provide guidance for an updated version of leadership intent.
- Define a product development process and accelerate at least one RightStar product into development for commercial space.
- · Re-examine organizational reporting metrics that drive positive sales and market positioning behavior.

The Strategic Opportunity (Phase 1 Services)

- Define specific opportunities that exist with RightStar technology partners.
- Define new target customers for a high-value RightStar product to be developed.
- Re-evaluate the RightStar product portfolio to prioritize organizational innovation efforts.
- Review and revise reporting metrics and make recommendations for a new reporting system to be used by top
 management in making more strategically focused, growth-based decisions on a periodic basis.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Strategic Alignment</u>: GENEDGE engaged RightStar leadership in industry analysis and visioning exercises to align high value capabilities with emergent market opportunities.
- Ideation: GENEDGE facilitated concept generation sessions to define a set of commercializable offerings aligned to customer needs.
- <u>Portfolio Roadmapping:</u> GENEDGE contracted with a corporate business development specialist to dig deep on RightStar's metrics and reporting behaviors and then provide recommendations to streamline the process for more meaningful reporting.

Results

Through a high-touch consulting engagement directly with the CEO, a GENEDGE consultant illuminated gaps and mis-aligned data in the organizational reporting process. This intensely data-driven delivery helped the CEO define new areas where RightStar might win in a margin-driven landscape. As a result, the financial performance reporting process was streamlined to enable better, faster strategic decisions linked to sales force effectiveness.



Vice President Michael Nickerson says, "The GENEDGE engagement provided a professional and highly productive experience for Spectrum that resulted in a focused strategic market assessment, and the identification of actionable new product and services initiatives"

Company Situation Prior to GENEDGE Engagement:

Spectrum provides specialize governmental services and saw an opportunity to move into non-DoD space. They recognized a growth market in the use of tablets. Institutions such as training organizations, service organizations and health care use tablets, and each tablet needs to be configured and personalized on an ongoing basis. This reconfiguration and maintenance takes valuable IT resources. Additionally, security of the data may be compromised if the tablet is misplaced or stolen. Prior to the GENEDGE engagement Spectrum had introduced the Go-Box Vault into the market space but had not yet converted market opportunities to sales.

The Strategic Objective (Phase 1 Services)

- Prioritize non-DoD commercial opportunities. Determined that an unmet need in the educational Chrome tablet might be a significant opportunity.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries and potential messaging to key decision makers.

The Strategic Opportunity (Phase 1 Services)

 Based on Phase 1 services, it was determined that prototypes for both the Go-Box Vault and Chrome where needed to show proof of concept and build future acceptance.

The GENEDGE Service Solution (Phase 2 Delivery)

A product commercialization certification strategy was developed. It was determined that many school systems in Virginia
were shifting to Chrome tablets. Initially, Spectrum's Go-Box only supported Apple tablets due to the ability to clear and
restore the tablet through the communication port. Discussions with a large school system in Virginia identified a significant
problem in the configuration and support of the Chrome tablet. Spectrum's engineering department upon further
investigation determined a way to solve this problem and provide a Go-Box unit at a very attractive price point.

- Spectrum has first generation prototypes in two school systems currently. IT support time has been significantly reduced
 and the concept has been positively received.
- Second generation units are currently being built for commercial validation.



Vice President Ken Mebane says, "The GENEDGE projects helped our team in areas we struggled with by providing subject matter experts providing in-depth questions, round-tables and report deliverables. Steel America has gained new customers, increased sales and saved jobs by completing both Phase 1 and Phase 2 GENEDGE modules. Our team would not have been able to do this type of work without the GENEDGE team and experts. Thank you!"

Company Situation Prior to GENEDGE Engagement:

Steel America provides large steel fabrication, machining, and on-site services to both the DoD and non-DoD space. They were looking to grow their fabrication into markets that they do not traditionally support. They felt that they were unclear about the desirability and investments to enter into these markets. Also, they felt that they did not do an adequate job of representing their capabilities on the web and managing their web presence.

The Strategic Objective (Phase 1 Services)

- Prioritize non-DoD commercial opportunities.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

Steel America was looking to expand their service offering into other "profitable" markets. They had in the past provided
fabrication services to these markets. However, certification levels had change impacting their ability to provide these
products. They also saw potential in new markets, however they would have to invest in both machinery and certification to
enter into the pressure vessel market.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Market Research:</u> Helped the company quantify market opportunities and investments in the bridge fabrication accessory and pressure vessel markets. Also looked to increase business in the large steel fabrication market.
- Helped Steel America begin to optimize their web presence by segmentation of their page structure to increase the search position.
- Creation of various non-DoD promotional video to support business development efforts.

- Steel America was able to highlight their unique capabilities in various non-DoD markets with the goal of attracting new business.
- Market research results enabled business development to segment and prioritize marketing efforts. It also helped craft their web message and provide direction on content and social media funnels.
- Promotional video is being used on the website, YouTube channel, social media and on tablets to show customers at tradeshows and jobsites.



CEO/Founder Gregory Glaros says, "SYNEXXUS is proud to have been selected to participate in the Virginia Domestic Markets Expansion Program (DMEP). Having primarily served the US defense market since our founding in 2006, we were looking to diversify and expand into new commercial markets targeting the Industrial Internet of Things (IIoT™), and the DMEP program enabled us to accelerate our entry into those markets. Synexxus has long been an advocate for partnering with other Virginia-based small companies, and we look forward to the opportunity to continue to do so as we work with GENEDGE and the DMEP program to help build the New Virginia Economy."

Company Situation Prior to GENEDGE Engagement:

Synexxus designs and manufactures integrated display technology to industrial and DoD customers. They are located in Arlington, Va. with 25 employees. The firm developed a niche brand for highly integrated smart displays which consolidate numerous displays into a single device in mobile military vehicles. Utilizing similar thought processes, engineering talent and manufacturing capability, Synexxus saw an opportunity to move into non-DoD space.

The Strategic Objective (Phase 1 Services)

- Prioritize non-DoD commercial opportunities.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

Synexxus was pursuing a wide variety of disparate markets including exterior lighting control, transformer monitoring, and
fire protection device monitoring. Focus was needed to assure that they were not spreading the organization too thin to be
successful. They are using a partner strategy. Based on Phase 1 services, partners were re-evaluated to determine if they
could provide the desired long term growth for movement into non-DoD markets.

The GENEDGE Service Solution (Phase 2 Delivery)

- Market Research: Helped the company quantify market opportunities and prioritize sales efforts in the commercial exterior LED lighting market.
- · Helped Synexxus begin to develop a brand image for partnering by bringing non-DoD capabilities to their website.
- Assisted in the creation of various non-DoD promotional collateral to support business development efforts.

- Synexxus was able to highlight its unique capabilities in various non-DoD markets with the goal of attracting new partners.
- Market research results and collateral creation enabled business development to segment and prioritize marketing efforts. It also helped craft their brand message.



President David Ayres says, "GENEDGE helped us to advance our offerings outside of the DoD environment. With their input and connections, we were linked to NCN Technology, a small business that is helping us develop in-house training solutions for our current customers as well as on-line training modules for the commercial sector. These two developments will have a positive impact on our revenues in 2017"

Company Situation Prior to GENEDGE Engagement:

TATE Incorporated is the preeminent firm focusing exclusively on personnel recovery (PR). They saw their business decline over the last couple of years and wished to regain focus. They recognized a potential opportunity to move into non-DoD space providing similar services.

The Strategic Objective (Phase 1 Services)

- · Prioritize non-DoD commercial opportunities.
- Develop corresponding value proposition(s) to meet emergent commercial opportunities.

The Strategic Opportunity (Phase 1 Services)

- Based on Phase 1 services, the direction of TATE was re-evaluated to determine if they could provide the desired long-term grow and movement into non-DoD markets.
- They had introduced, under TATE Global "ProtecTour," a mobile non-DoD application for tracking individuals and informing individual subscribers of potential threats based on their international location.

- · We were able to identify and connect TATE Incorporated with NCN Technology for potential business development.
- TATE made the strategic decision to focus on their traditional market and their efforts on "ProtecTour."



Senior Vice President Kevin Uitz says, "It was a pleasure working with the GENEDGE team."

Company Situation Prior to GENEDGE Engagement:

Tiber Creek Consulting is an information technology professional services firm supporting the Department of Defense (DoD). The company is a Microsoft Gold Partner. Tiber Creek provides services in the areas of software development, IT infrastructure and business intelligence/data management.

The firm had recently been not selected for a DOD contract renewal representing approximately 50% of revenue. The firm conducted most of its business with the U.S. Army.

The Strategic Objective (Phase 1 Services)

- · Identify and prioritize non-DoD commercial opportunities.
- Determine the firm's key capabilities and define an area of focus.
- Identify highest-value service offerings and develop corresponding value proposition(s) by leveraging the firm's key
 capabilities in order to meet emergent commercial opportunities in growing industries.

The Strategic Opportunity (Phase 1 Services)

- Some of Tiber Creek's strongest capabilities in data warehousing, cybersecurity and business process automation appeared to be a match in high growth markets.
- The firm focused on a set of new cybersecurity standards that would need to be met by DoD contractors in 2017.
- Internal processes and expertise to support market and industry research were inadequate, ad hoc and were not sufficient
 to discover and assess growth opportunities in new markets.

The GENEDGE Service Solution (Phase 2 Delivery)

- <u>Market Research:</u> Helped the company quantify market opportunities and prioritize sales efforts addressing cybersecurity
 and security compliance market drivers. Follow-on research provided further insight into specific cybersecurity compliance
 requirements imposed onto commercial vendors conducting business with the Department of Defense.
- <u>Concept Development:</u> Helped Tiber Creek's leadership and key employees develop a value proposition for a
 cybersecurity compliance tool to be provided as a new software-as-a-service offering for companies that must comply with
 specific cybersecurity regulations necessary to conduct business with the Department of Defense.
- <u>Business Model Development:</u> Defined a partner-based Go-To-Market approach which leveraged Tiber Creek's technology expertise and limited their sales investment needs to promote and sell the service across a large market landscape.

- Identified and quantified a true market need that will be addressable by Tiber Creek's new cybersecurity compliance solution. Research indicated that while the need is large, the solutions space is highly fragmented across a wide variety of vendors and price points. Tiber Creek leadership now possesses a roadmap for developing partners that can support a larger market launch.
- Tiber Creek continued its product development investment into the offering and is working with early stage customers to
 refine the processing needs of the solution while the compliance regulations continue to evolve from the Department of
 Defense.



Appendix

Delivery team bios

Dean Young is the **Program Manager** for the **Virginia Domestic Markets Expansion Program** and an **Engagement Manager** with GENEDGE.

With over 25 years of experience as a leader, teacher, consultant and coach, Dean has a proven history of integrating innovative, collaborative, and systemic approaches to lead strategically aligned change efforts that measurably improve performance. He has primarily provided internal and external consulting resulting in numerous performance improvements including successful delivery of several large, complex programs.

Prior to joining VA-DMEP, he was a key member of the USMC Continuous Process Improvement/ Enterprise Performance Support team supporting commanders by facilitating improved organizational capabilities in order to align strategic priorities with resource capacity across the Marine Corps. Previously, he was a Project Manager for GENEDGE, serving as the practice manager for Supply Chain services and providing consulting capabilities in business and strategic planning, supply chain management, system design and development, program and project



management, lean enterprise, and lean six sigma process improvement. Dean previously led a successful Lean Supply Chain Integration program for Northrop Grumman Newport News Shipbuilding including program management for their Supplier Continuous Improvement program and strategic development of a Lean Supply Chain that coordinated assessment and process improvement implementation with 56 Suppliers. This program resulted in significant impact for Newport News and the Naval supply chain including over \$ 147 million in sales created and over \$87 Million in annual cost savings generated.

Dean holds a BS in Industrial Engineering and Operations Research from Virginia Tech. He is also a certified Lean Six Sigma Master Black Belt, a Certified Balanced Scorecard Practitioner, certified as a NIST MEP LEAN instructor in Lean Principles, Value Stream Mapping and Lean Supply Chain Logistics and a certified Jonah in the Theory of Constraints. Dean was twice recognized with the National MEP Practitioner of the Year Award (2007 & 2008) during his tenure with GENEDGE.

Paul Bolesta is an Innovation Project Manager with GENEDGE.

He is part of the GENEDGE delivery team for the **Virginia Domestic Markets Expansion Program (VA DMEP)**, a high impact program that assisted over 20 DoD supply chain companies in placing new ideas, products and services into commercial markets.

He has over 25 years of varied experience in the manufacturing and non-manufacturing industries including senior management, new product development, business development, and process improvement.

Prior to joining GENEDGE, he was the vice president of marketing at Weidmuller, Inc. of Richmond where he directed marketing and technical teams and also was an international team member analyzing global business. Previously, he was employed by the Square D Company commercializing a high-end European automation system and new product innovation and development for Honeywell Industrial Controls.



Paul holds a BS in Electrical Engineering from Michigan Technological University, an MBA from the College of William and Mary, and is a Lean Six Sigma Black Belt.



Roy Luebke is an Engagement Manager representing GENEDGE's presence at the Mason Enterprise Center-Fairfax location.

Roy is be responsible for leading new engagements and developing opportunities for GENEDGE to expand its services in assisting small businesses as well as advanced manufacturing and technology businesses in the Fairfax region and statewide. In 2017, Roy will lead the development of a new service offering for Cyber Security Risk Management.

Roy continues to support a GENEDGE program for Department of Defense supply chain companies that have been or will be affected by sequestration. This program, called the **Virginia Domestic Markets Expansion Program (VA DMEP)** is a selective entry program tailored to each participating company to assist them in entering new markets, developing new products, and utilizing new market channels to grow their business. Roy has been instrumental in developing and delivering this program statewide.



He has many years of varied management consulting experience in marketing research and strategy with expertise in customer/market research, product management, integrated marketing communications and strategy development. Throughout his career Roy has mostly focused on conducting primary and secondary research in global markets for Fortune 50, as well as start-up ventures. His industry expertise includes leading customer-driven product and service creation in the healthcare, technology, and consumer markets.

Roy holds a Masters in Design Methods (MDM) at Illinois Institute of Technology's Institute of Design; a Master of Business Administration (MBA) at the University of Maryland, University College; a Bachelor of Business Administration in Information Systems at University of Wisconsin-Eau Claire.

Mike Levy is an Innovation Project Manager with GENEDGE.

Mike's key delivery focus involves helping businesses gain strategic clarity on their growth objectives, then managing the creation and development of new ideas for business models, processes, products or services. To date, Mike has managed or co-managed Innovation projects with over 100 government, industrial, scientific or manufacturing firms, facilitating the creation of hundreds of new growth ideas and creating positive changes in strategic vision for their futures.

Mike uses his research background to integrate Voice of the Customer, Technology Driven Market Intelligence, market research or content analysis findings into a manageable "sandbox" of internal and external opportunities that align with the changing environments of these firms. Key emphasis in his deliveries is placed on clear value proposition and competitor analysis.



In 2015, he was on the GENEDGE delivery team for the Virginia Domestic Markets Expansion Program (VA DMEP), a high impact program that assisted over 20 DoD supply chain companies in placing new ideas, products and services into commercial markets. During the first year, Mike managed seven companies in less than a year, and was responsible for co-managing over \$575,000 of commercialization development investments. Mike continued with the program in Year 2, helping newly entering companies develop concepts, prototypes and commercialization strategies around their strategic ideas. In 2017, he participated in coaching these companies in their pitches for major commercialization funding, and continues to manage three of those projects: an unmanned aerial vehicle platform; a new type of personal protective gear for law enforcement; and a projection engine for 3-D metrology.

In 2010, he was an instrumental part of the team that helped launch an innovation grant program that generated nearly \$750,000 in innovation investments across Virginia. In 2011, he was part of a five-member MEP team that studied U.S. supply chain competitiveness and co-authored a key white paper explaining the competitive gaps.

Since joining GENEDGE, he has achieved Lean Six Sigma Black Belt certification; Innovation Engineering Black Belt certification; TDMI certification and Tech Scouting certification. He also uses Lean Product Development tools and methods. In 2017, he received "Core Consulting Skills Certification" (CCSC) from the Association of Internal Management Consultants.