CELEBRATING 30 Years of Serving Southwestern PA’s Manufacturing Community

There are 93,113 Employees Working in Manufacturing in SWPA

PHOTO: ENSINGER
PROMOTE, SUPPORT and STRENGTHEN

Manufacturing is critical to the health and prosperity of the Pennsylvania economy. Likewise, Industrial Resource Centers (IRC’s) are critical to the small and medium-sized manufacturers that make up more than 92 percent of the Commonwealth’s manufacturing base.

The IRC Network represents seven private, nonprofit IRC’s located strategically throughout the Commonwealth. These Centers were established to help manufacturers respond to changing markets, new technology and the competitive pressures of today’s global economy.

Working collaboratively, company by company, the Network’s mission is to help manufacturers envision where they want to be and assist them to achieve it, in addition to giving a voice to an increasingly vital part of the Commonwealth’s economy.

Catalyst Connection is one of the seven Industrial Resource Centers that promote, support and strengthen manufacturing in the state.
A BRIDGE TO ENHANCE MANUFACTURING

The MEP National Network™ is a unique public-private partnership that delivers comprehensive, proven solutions to U.S. manufacturers, fueling growth and advancing U.S. manufacturing.

The Hollings Manufacturing Extension Partnership (MEP) is based at the National Institute of Standards and Technology (NIST). The national Program Office (NIST MEP) which provides the federal government funding for the MEP National Network™ is located in Gaithersburg, MD.

MEP is a public-private partnership, designed from inception as a cost-share program. Federal appropriations pay one-half, with the balance for each Center funded by state/local governments and/or private entities, plus client fees. This cost-share model contributes to MEP’s success. A Government Accountability Office study found that because client fees give manufacturers a higher stake in the outcome of services, the positive impact on their businesses is greater. Meanwhile, public funding allows smaller manufacturers to afford services. NIST MEP uses 2 CFR 200 to monitor and govern the recipients’ use of federal funds.

The MEP National Network’s strength is in its partnerships. Through its collaborations at the federal, state and local level, MEP Centers work with manufacturers to develop new products and customers, expand and diversify markets, adopt new technology, and enhance value within supply chains. The MEP Program serves as a bridge to other organizations and federal research labs that share a passion for enhancing the manufacturing community.
Since CATALYST CONNECTION opened our doors 30 years ago, we’ve seen a drastic shift in Pittsburgh’s main economic drivers — from a broken steel town to a technology-driven innovation hub with strengths in additive manufacturing, R&D, Cloud Computing (IoT), robotics and autonomous technology. Undoubtedly, Pittsburgh and its surrounding regions are rich in technological and scientific resources and lush with innovative minds — surrounded by Universities such as Carnegie Mellon University and the University of Pittsburgh. However, despite its ample assets, Pittsburgh is still faced with serious challenges to remain relevant in an intensely competitive landscape. The region is up against a number of other innovation-led cities that are investing billions of dollars into new tech and other industries with the potential to restructure the entire global economy. The September 2017 Brookings Report, “Capturing the next economy: Pittsburgh’s rise as a global innovation city” highlights the specific challenges Pittsburgh is facing, as well as detailed plans for how the region can take the assets it already has and further develop and improve them to remain successful in this modern innovation economy.

The Brookings Report issues a call to action for the Greater Pittsburgh region and its leaders and emphasizes how truly vital it is for the city to stand out amongst its competition and stay at the forefront of these revolutionizing technologies in order to attract the best talent, increase the number of better-paying jobs, and increase revenues that can be reinvested in education, workforce development, infrastructure, and neighborhood revitalization. The findings of this report, much of which are summarized within this letter, are critical to the further development and overall success of this region.

Although Pittsburgh has come a long way, its scientific and technical strengths have not fully translated into extensive economic activity, and the region will have to confront many of its challenges head-on if it is to continue to grow and compete with cities such as Denver, Austin, Atlanta and other global peers — cities with a history of building high-growth companies that employ large numbers of workers consistently. Pittsburgh has made the initial steps and developed the capacity to create a significant number of start-ups, now it needs to transition into the growth and development stage of these start-ups.

In regards to employment, Pittsburgh has seven percent fewer jobs in high-wage, high-tech advanced industries than it did in 2000. There have been
LETTER from the President

a considerable number of contributions to innovation such as patents and investment in R&D, however, the level of economic outputs, such as jobs, GDP and new advanced firms, generated as a result of these inputs are relatively insignificant.

Another challenge facing the region is a stagnant and aging population, (a quarter million expected to retire over the next decade), while some of its peer cities are growing in the double digits. With the evident dangers of a shrinking labor market, efforts must be made to enhance workers skills to fill the unavoidable gaps.

Though Pittsburgh is faced with some substantial challenges, the potential of this city and the people within it is insurmountable. We see the endless opportunities for growth every time we walk through one of our client’s shops, talk with a worker, and engage in training or consulting sessions. The innovation, the ability and the drive are all there, and with a plan in place and the proper guidance, education and training, we can be at the forefront of this economic shift.

Because we know what this region and its workers are capable of, we host specific trainings/events and develop key partnerships geared toward providing solutions for these exact challenges. In 2018, one of the key events we are hosting is our Annual Manufacturing Reception with a focus on The Advanced Manufacturing Innovation Cluster. We know that a skilled and qualified workforce is key to a strong manufacturing sector, and during our reception event, we are highlighting employer engagement and workplace learning opportunities to showcase high demand occupations and build a strong pipeline of young, new workers. There is no doubt that technological advances are quickly changing customers’ expectations. Manufacturers who understand the importance of incorporating Advanced Manufacturing Technology within their supply chains will increase the value of any initiative they pursue. When manufacturers succeed, the ripple effect can be felt throughout the entire economy, where all businesses and communities prosper.

For this same reason, we are powering the Greater Pittsburgh Metals Manufacturing Community initiative, Making Your Future,™ which seeks to help thousands of people find a career in manufacturing and supports struggling companies and dislocated workers in the declining coal sector, with an end game of meeting the need for 30,000 jobs over the next 10 years. Manufacturing is still one of the largest industries for employment in our region, but few of the residents are aware of the variety of careers available. By making local residents aware of the vast number of opportunities within manufacturing accessible to them, we can develop Pittsburgh into a super region full of economic potential. When organizations like us band together with other local organizations, universities, start-ups and government, we can develop a powerful regional network that draws its strength from key industries, such as advanced manufacturing and technology, promotes its business opportunities, and adds significant value to all those involved.

We make it our goal to create positive results for every one of our clients through our consulting, training and financial programs. Over the past 30 years, we’ve helped more than 1,700 manufacturers across our 12-county region significantly reduce their costs while improving profitability and increasing revenue. With the Greater Pittsburgh region up against intense competition to be a manufacturing leader in a high-value, technology-driven environment, we embrace the challenge and offer the services that can make Pittsburgh’s manufacturing firms successful.

Everyone in every city has the ability to dream — let’s dream bigger. Catalyst Connection is proud to support local manufacturing companies in an effort to turn our dreams for Pittsburgh into a reality. Please join us and get involved, visit our website at www.catalystconnection.org, come to an event, or call us directly at 412.918.4300.

We wish you a very happy and prosperous 2018!

PETRA MITCHELL — President And Chief Executive Officer, Catalyst Connection
RAYMOND YEAGER — Chairperson, Catalyst Connection

30,000 Jobs Will Need to be Filled Over the Next Ten Years in Southwestern PA

Making YOUR Future...
The power to create sustainable results

“Pittsburgh companies are putting their capital to work to drive growth and, at the same time, help address environmental, social and community challenges. Supporting your growth strategy is how we help you succeed in a transforming world.”

Jim Dever
Market Executive
Bank of America Merrill Lynch
james.f.dever@baml.com

Margey O’Brien
Market Manager
Bank of America Merrill Lynch
marget.m.obrien@baml.com

68% of millennials say businesses are better able than governments to solve tough environmental and social problems.1

83% of millennials

CEO CHALLENGES

90% of companies consider a sustainability strategy important to remaining competitive.4

THE RISE OF SUSTAINABLE GROWTH

Successful companies are making sustainability central to their growth strategies. Beyond good corporate citizenship, they are recognizing the intrinsic link between the strength of their business, and that of the communities and economies they are part of. Leading your growth with those goals in mind builds resilience and better solutions for the future.

DRIVING RETURN ON INVESTMENT

Striving for responsible growth may have a positive impact on your financial performance. According to recent research, companies focusing on risks and opportunities linked to the environment, communities they operate in, and society as a whole, may potentially produce better financial results than those that aren’t.3

WHY YOUR STRATEGY NEEDS SUSTAINABILITY

Simply put, sustainability is long-term survival for your business, and the ecosystem in which you operate. And it’s not just for the Fortune 500s. Sustainability is core to managing risk, staying competitive, protecting your brand reputation and attracting talent. In the new age of transparency, your commitment to sustainability may be a deciding factor for your customers, investors, vendors and employees.

For more information about sustainable business practices, visit bofaml.com/sustainability


2. "Bank of America Merrill Lynch” is the marketing name for the global banking and global markets businesses of Bank of America Corporation. Lending, derivatives and other commercial banking activities are performed globally by banking affiliates of Bank of America Corporation, including Bank of America, N.A. Member FDIC, Securities, strategic advisory, and other investment banking activities are performed globally by investment banking affiliates of Bank of America Corporation (“Investment Banking Affiliates”), including, in the United States, Merrill Lynch, Pierce, Fenner & Smith Incorporated and Merrill Lynch Professional Clearing Corp, both of which are registered broker-dealers and Members of SIPC and, in other jurisdictions, by locally registered entities. Merrill Lynch, Pierce, Fenner & Smith, Incorporated and Merrill Lynch Professional Clearing Corp. are registered as futures commission merchants with the CFTC and are members of the NFA. Investment products offered by Investment Banking Affiliates. Are Not FDIC Insured • May Lose Value • Are Not Bank Guaranteed. ©2018 Bank of America Corporation. ARM4TQW6

01-18-2018
Catalyst Connection – Serving Our Clients Since 1988

**OUR IMPACT**

- **$3.37B** Sales Increased
- **$2.62B** Sales Retained
- **$230.7M** Cost Savings

**Investment Made:**
- Plant and Equipment: $331,385,346
- Information Systems: $28,442,533
- Workforce Practices: $29,248,230
- Products and Processes: $72,995,101
- Other: $81,195,655

**Savings On Investments:** $109,104,175

**Manufacturing Companies in SWPA Created and Retained:** 17,029

**16.6%** of Manufacturing Employment in SWPA is in Fabricated Metals
### Stats and Impact 2017

**Companies Served by Industry in 2017**

<table>
<thead>
<tr>
<th>PRIMARY NAICS DESCRIPTION</th>
<th>UNIQUE ACCOUNTS</th>
<th>PERCENTAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabricated Metal Product Mfg.</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>Computer and Electronic Product Manufacturing</td>
<td>19</td>
<td>12</td>
</tr>
<tr>
<td>Machinery Manufacturing</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Plastics and Rubber Products Mfg.</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Miscellaneous Manufacturing</td>
<td>13</td>
<td>8</td>
</tr>
<tr>
<td>Nonmetallic Mineral Product Mfg.</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Primary Metal Manufacturing</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Electrical Equipment, Appliance, and Component Mfg.</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Chemical Manufacturing</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Transportation Equipment Mfg.</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Printing and Related Support Activities</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Food Manufacturing</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Beverage and Tobacco Product Mfg.</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

**Grand Total** 153 100

### Companies Served by County in 2017

<table>
<thead>
<tr>
<th>PRIMARY NAICS DESCRIPTION</th>
<th>COUNTY</th>
<th>UNIQUE ACCOUNTS</th>
<th>PERCENTAGE %</th>
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</thead>
<tbody>
<tr>
<td>Allegheny</td>
<td>58</td>
<td>39</td>
<td></td>
</tr>
<tr>
<td>Armstrong</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Beaver</td>
<td>5</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Butler</td>
<td>16</td>
<td>10</td>
<td></td>
</tr>
<tr>
<td>Cambria</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Fayette</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Greene</td>
<td>1</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Indiana</td>
<td>6</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Lawrence</td>
<td>3</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Somerset</td>
<td>2</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Washington</td>
<td>31</td>
<td>20</td>
<td></td>
</tr>
<tr>
<td>Westmoreland</td>
<td>26</td>
<td>17</td>
<td></td>
</tr>
</tbody>
</table>

**Grand Total** 153 100

### Companies Served by Size in 2017

<table>
<thead>
<tr>
<th>PRIMARY NAICS DESCRIPTION</th>
<th>SIZE</th>
<th>UNIQUE ACCOUNTS</th>
<th>PERCENTAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Allegheny</td>
<td>1-9</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>Armstrong</td>
<td>10-19</td>
<td>10</td>
<td>7</td>
</tr>
<tr>
<td>Beaver</td>
<td>20-49</td>
<td>34</td>
<td>22</td>
</tr>
<tr>
<td>Butler</td>
<td>50-99</td>
<td>32</td>
<td>21</td>
</tr>
<tr>
<td>Cambria</td>
<td>100-249</td>
<td>46</td>
<td>30</td>
</tr>
<tr>
<td>Fayette</td>
<td>250-500</td>
<td>16</td>
<td>10</td>
</tr>
<tr>
<td>Greene</td>
<td>&gt;500</td>
<td>10</td>
<td>7</td>
</tr>
</tbody>
</table>

**Grand Total** 153 100

### Revenue

<table>
<thead>
<tr>
<th>FUNDING SOURCES IN 2017</th>
<th>DOLLAR AMOUNT</th>
<th>PERCENTAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>PA Dept. of Community and Economic Development</td>
<td>1.1 M</td>
<td>21</td>
</tr>
<tr>
<td>U.S. Dept. of Commerce, National Institute of Standards and Technology, Manufacturing Extension Partnership</td>
<td>1.1 M</td>
<td>21</td>
</tr>
<tr>
<td>Fees</td>
<td>1.4 M</td>
<td>28</td>
</tr>
<tr>
<td>Private Grants and Other</td>
<td>1.5 M</td>
<td>30</td>
</tr>
</tbody>
</table>

### Expenditures

<table>
<thead>
<tr>
<th>USE OF FUNDS IN 2017</th>
<th>PERCENTAGE %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing Consulting Services and Programs</td>
<td>87</td>
</tr>
<tr>
<td>Workforce Education</td>
<td>8</td>
</tr>
<tr>
<td>Administration and Other</td>
<td>5</td>
</tr>
</tbody>
</table>

### IMPACT RESULTS 2017

**Sales Increased** $ 16,727,900.

**Sales Retained** $112,040,000.

**Cost Savings** $6,086,601.

**Investment Made**

- **Plant and Equipment** $6,401,000.
- **Information Systems** $2,007,700.
- **Workforce Practices** $1,057,700.
- **Products and Processes** $5,653,500.
- **Other** $974,000

**Savings on Investments/Investments Avoided** $2,386,464.

**Jobs Created** 179

**Jobs Retained** 985

**Total Jobs** 1,164

Each year, the U.S. Department of Commerce’s National Institute of Standards and Technology (NIST) evaluates the impact that Manufacturing Extension Partnership (MEP) Centers have on the clients they serve. Evaluations conducted by Fors Marsh Group, an independent third party, documented the above results based on client surveys conducted in 2016.
Catalyst Connection’s strategic services assist local manufacturers to accelerate their growth and improve productivity. We forge partnerships to bring new resources to our clients. We continually add new services to meet our clients’ needs and expand business opportunities.

BUSINESS GROWTH (PRODUCTS)

NEW CUSTOMERS:
Identify and reach customers through marketing and sales tools.

NEW PRODUCTS:
Develop and launch innovative products not easily copied or outsourced to low-cost countries.

NEW MARKETS:
Enter new markets, including Marcellus Shale and foreign countries. Identify opportunities and serve as a resource for buyers and sellers.

ORGANIZATIONAL DEVELOPMENT (PEOPLE)

EMPLOYEE HIRING:
Tailor unique testing and training solutions designed to hire employees with today’s manufacturing skills.

EMPLOYEE DEVELOPMENT:
Improve fundamental skills among employees to perform at their current position and prepare for advancement.

EMPLOYEE RETENTION:
Strengthen company culture, reduce turnover and plan for future staffing needs.

OPERATIONAL EXCELLENCE (PROCESS)

PRODUCTIVITY IMPROVEMENTS:
Custom productivity programs including Lean Manufacturing, Six Sigma and Reshoring to become globally competitive.

QUALITY IMPROVEMENTS:
Reach new customers by gaining ISO and other quality certifications.

PROCESS IMPROVEMENTS:
Advance communication and procedures necessary for all operating enhancements.

PHOTO: ALL-CLAD METALCRAFTERS

Manufacturing Wage Growth
In the Region was Comparable to the Nation
OUR COMPANY SUCCESS STORIES in 2017

PHOTO: ENSINGER
RE2 is a manufacturer that has specialized in agile defense robotics with an emphasis on intelligent modular manipulation for mobile robotic platforms since 2001.

RE2 was looking to improve on leadership development in order to execute corporate strategy through their most valuable asset — people! They leveraged Catalyst Connection’s expertise and DDI’s tools to create a leadership development program that changed leaders’ behaviors, thereby having a lasting impact on customers, employees and ultimately the transformation of their business.

Catalyst provided a series of training experiences to the senior leadership at RE2 aimed at understanding their personal leadership styles and areas for improvement. This was coupled with training on Communication for Leadership Success and effective leadership techniques. Because the entire senior leadership team was trained at the same time in a private setting, RE2 was able to discuss specific situations and receive expert advice to help them corporately solidify our vision and leadership strategy.

“RE2 found that the Communication for Leadership success was so valuable, that we had Catalyst teach a sister course with the same concepts and structure to the entire RE2 staff to provide a common lexicon and strategy for effective communication at all levels.” — Doug Peters, VP of Operations, RE2 Robotics
Ensinger, Inc. with its North American headquarters in Washington, Pennsylvania, processes high-performance engineering plastics. Combining its extrusion, casting, compression and injection molding proficiency with its knowledge of high-performance polymers and applications, Ensinger aims to expand into the engineering plastics market. Ensinger’s expertise lies in analyzing part design and matching proper materials and process combinations to fit application criteria.

Ensinger partnered with Organizational Development Consultant David Rea of Catalyst Connection to undergo DDI’s Success Profiles, Leadership Mirror and Leadership Training offerings to enhance its organizational strength and to develop a common language around its corporate culture. These curricula allowed Ensinger employees to not only identify the core competencies needed for their role within the organization but to also understand their unique strengths and to highlight opportunity areas for personal development. Ensinger launched the first wave of its engagement with members of its senior management team to gain “top-down” buy-in on the importance of the outputs of the program. The DDI suite has since been deployed to a second round of employees, with further waves planned in upcoming months.

Several Catalyst Connection staff members are certified Development Dimensions International (DDI) instructors. Catalyst can provide DDI tools and trainings such as DDI Leadership Mirror® Feedback, DDI Success Profiles, and DDI Leadership Curriculum.

“The DDI curriculum is helping Ensinger improve its leadership competencies, from individual contributors through senior managers. Our Executive Committee was interested in a renewed focus on team leadership and the DDI programs were a natural fit. With the successful launch of the DDI programming we are looking forward to taking advantage of additional DDI offerings and continuing our partnership with Catalyst Connection.”
— Bill Matthews, VP of HR & Administration, Ensinger
CP Industries is a manufacturer of steel and composite seamless pressure vessels located in Allegheny County. CP Industries wanted to grow its business in both the defense and commercial sectors. One of the requirements to accomplish this, particularly in the defense sector, was the implementation of a formal Export Compliance Program that met the International Traffic in Arms Regulations (ITAR) as well as the Export Administration Regulations (EAR).

Catalyst Connection helped CP Industries develop and implement an Export Compliance Program via a three-phased approach based on best practices. Catalyst was able to help the CP Industries’ team determine the export regulations that applied to the company’s products and services.

CP Industries and Catalyst Connection worked together to develop future state process maps that would meet EAR and ITAR compliance requirements — while also developing procedures, tools and templates that would become the Export Compliance Manual, a key piece of CP Industries’ ultimate Export Management System.

Catalyst trained CP Industries’ staff in the importance of complying with U.S. export control laws and regulations, the new export compliance procedures, and the steps if a violation occurs. Catalyst is also providing on-going coaching and assistance to help the team successfully comply with U.S. export regulations.

“The expertise provided by Catalyst Connection in the area of export compliance has been vital to assuring CPI’s ability to develop and maintain a formal system in compliance with both ITAR and Export Compliance requirements.”

— Brian Kochanski, Director of Continuous Improvement and Systems, CP Industries
5 Generation Bakers specializes in the manufacturing of gourmet cinnamon swirl breads and other specialty round shaped breads.

The Baker family has been baking for Pittsburghers for over 135 years. Family traditions began in 1875 when Michael A Baker started the 7 Baker Brothers Bakery in the West End. Years later in 1938, Michael’s grandson Paul Baker opened Jenny Lee Bakery in Market Square. Challenges forced both bakeries to close their doors with 7 Baker Brothers in 1943 and Jenny Lee in 2008. Out of a desire to continue in the Baker Family baking traditions, 5 Generation Bakers was founded by Scott Baker in June 2009 as a commercial manufacturer of gourmet cinnamon swirl bread.

After building the business in the original location in McKees Rocks, 5 Generation Bakers was forced to move due to the CSX expansion in McKees Rocks. They were able to identify a perfect candidate property in the former Bottom Dollar Supermarket on Chartiers Avenue and began the expansion project. While sales have continued to grow more than 10% each year, they were challenged to meet the increased financial demands of the newly renovated facility.

The new space at the Chartiers Ave location has increased the bakery’s production capacity. Catalyst provided a loan for $125,000.00 through the Manufacturing Technology Loan Fund for additional equipment to keep pace with the demand.

Catalyst Connection offers Financial Services that includes more than just a loan... We provide: assessments, advice, counseling, consulting, and referrals to make a successful purchase.

“Our niche bakery business has been successful in finding new customers and opportunities to keep revenue and production growing. Art Tintori from Catalyst Connection was instrumental in helping us acquire necessary funds for additional equipment and working capital as we settled into our newly renovated bakery facility.” — Scott Baker, President, 5 Generation Bakers
All-Clad Metalcrafters LLC (All-Clad) is located in Canonsburg, Washington County and currently has approximately 200 employees. All-Clad manufactures professional-quality bonded cookware for working chefs, gourmet home cooks and everyday foodies. All-Clad’s revolutionary bonded cookware offers extraordinary quality, striking aesthetics and exemplary cooking performance. Today, from its rolling mill in Southwest Pennsylvania, All-Clad is the only bonded cookware manufacturer who utilizes American craftsmen and American-made metals to produce a complete line of professionally bonded cookware products.

All-Clad management expressed their desire to have Catalyst Connection assess their current quality management system and to develop a plan for creating a sustainable program.

Catalyst Connection conducted a QMS gap assessment of All-Clad’s current quality management system. This process included:

- A comprehensive review of their quality manual and procedural level documents
- An audit of the company’s formal and informal operating practices to assess the level of implementation of the documented system
- Generation and presentation of audit report

Catalyst Connection’s engagement with All-Clad Metalcrafters provided an opportunity for All-Clad’s management team to more accurately evaluate the level of effort necessary to achieve compliance with ISO and All-Clad’s parent company (GroupeSEB) standards.

“Craig’s knowledge and experience with ISO systems and his ability to explain how and why the standards work the way they do was extremely helpful on this project. I have been able to make a significant impact to our quality management systems since the audit and I would be nowhere near this point without Craig’s help.”

— John Monson, Sr. Mgr. Quality & Continuous Improvement, All-Clad Metalcrafters
Mitsubishi Electric Power Products

Operational Excellence

Mitsubishi Electric Power Products (MEPPI) is a manufacturer that serves the North American power systems and rail transportation industries. Their products include gas circuit breakers, vacuum circuit breakers, power transformers, gas insulated substations, power electronics and electricity transmission technologies, generator services, nuclear power plant control systems, uninterruptible power supplies, and rail transportation equipment.

The Electrical Distribution Division was interested in advancing the way they manufactured their products. The production process had not changed for several years and they wanted to accomplish two things at once: bringing manufacturing advances and efficiency gains into the production process, and making room to manufacture new products, essentially freeing at least 25% of their existing floor space for product expansion.

Catalyst Connection assisted MEPPI with creating a new production floor layout and mapped a new manufacturing process flow. By training and working directly with production employees, Catalyst was able to implement practiced routines (KATA) that empowered the MEPPI staff to create new and improved ways to assemble and test existing products. With KATA methodology, progressive manufacturing, and 5S, MEPPI achieved their goals by meeting their current production needs with 25% less.

Catalyst Connection offers Operational Excellence consulting services that help to produce better quality products faster and at a lower cost including Improvement KATA and various Lean Manufacturing Tools.

“The Electrical Distribution Division maintains our emphasis on workplace safety, business development, product quality and advanced manufacturing across both mechanical and electrical product lines. The ongoing application of KATA methodology has brought further improvements to our business, both inside and out of manufacturing, and aids us by reinforcing our improvements as we continue to advance our manufacturing environment.”

— Tricia Breeger, General Manager, Electrical Distribution Division, Mitsubishi Electric
IGS Industries is a custom part and sealant manufacturer that offers stock and custom metal work parts, non-metallic parts, brand-name and custom sealants, gaskets, shims, and auxiliary products. IGS Industries has been in business since 1961 and employs approximately 120 people.

The company was operating their processes dependent upon outdated standards and practices, with no visibility to daily outcomes or productivity. Additionally, the organization was creating a new culture by implementing ESOP (Employee Stock Option Program) and an employee advisory board. IGS Industries found it challenging to make and understand profits and create an atmosphere to take the organization to the next level.

Catalyst Connection conducted a lean assessment and it was discovered that IGS needed to create a ‘new’ organization. In order to create this ‘new’ organization, Catalyst Connection provided high level strategic planning and executive team building, and began to implement a lean culture into the organization by helping the staff through training and coaching to help them reach their target condition in a lean scientific method of implementing and sustaining tools and culture. As a result, IGS Industries has had a 9% increase in sales.

Catalyst Connection offers consulting services using various Lean Manufacturing Tools such as Improvement KATA, Principles of Lean Manufacturing and the 5S System for Workplace Organization. In addition, Catalyst can provide a Lean Gap Assessment to assist your organization with implementing a lean culture.

“Catalyst Connection helped us to think ‘outside the box’ when it comes to rearranging our manufacturing process. With the implementation of lean manufacturing techniques, IGS Industries was able to set up our equipment in a more efficient manner so that we could avoid potential costly mistakes. The entire process enabled us to be more prepared to launch efforts into new markets as they arise.”

— Dave Sphar, President, IGS Industries
Catalyst Connection receives grants from foundations and other organizations to help benefit the greater manufacturing community. This is a list of some of the grants that are currently in process:

**Advanced Manufacturing and Robotics Careers** — Catalyst Connection is developing an advanced manufacturing career pathways model that includes a robotics apprenticeship program. Funding for this grant is provided by the Richard King Mellon Foundation.

**Advanced Robotics for Manufacturing Institute MEP Collaborative** — Catalyst Connection is helping manufacturers improve their quality, productivity and manufacturing flexibility through the adoption of robotics technology. We work closely with the Advanced Robotics for Manufacturing (ARM) Institute, a Manufacturing USA Institute which develops, demonstrates and facilitates early adoption of robotic solutions in an effort to grow the national manufacturing ecosystem. Funding for this grant is provided by NIST MEP Hollings Manufacturing Extension Partnership (MEP) and managed by the Pennsylvania Manufacturing Extension Partnership (PA MEP).

**Advancing Additive Manufacturing in Southwestern Pennsylvania** — Catalyst Connection is helping to accelerate the transition of knowledge and additive manufacturing (AM) technology to advance individual manufacturers as well as value chains of suppliers. We work closely with America Makes, a Manufacturing USA Institute which is the nation’s leading and collaborative partner in AM technology and innovation. Funding for this grant is provided by NIST MEP and managed by the PA MEP.

**Explore the New Manufacturing Initiatives** — Catalyst Connection expands upon its successful Explore the New Manufacturing programs that promote careers in manufacturing through a variety of STEM initiatives targeted to middle school and post-secondary students and teachers. We have placed particular emphasis on programs that create awareness of careers in manufacturing, develop competencies/skills needed by local manufacturers, and demonstrate pathways into apprenticeships and careers. We also continue to work with manufacturers to identify their needs for talent and develop customized solutions to assist them in the attraction and development of talent through apprenticeships. Funding grants are provided by the Benedum Foundation and Chevron Corporation in coordination with the Appalachian Partnership Initiative.

**Maker-to-Manufacturers Project** — Catalyst Connection is partnering with the Johnstown Area Regional Industries and the University of Pittsburgh to create a virtual center to mentor entrepreneurs and support their manufacturing scale-up. In addition, we will create a regional asset map and a Peer Network to connect innovators to the region’s manufacturing supply chain and academic institutions, as well as provide access to seed capital. Funding for this grant is provided by the Department of Commerce’s Economic Development Agency.
Manufacturing Value Stream for Natural Gas Liquids and Downstream Petrochemical — Catalyst Connection is working with partners to develop and present an educational workshop for manufacturing companies about existing and emerging shale-manufacturing sectors. Funding for this grant is provided by the Appalachian Regional Commission (ARC) through the West Virginia University Research Corporation.

Partnership for Opportunity and Workforce and Economic Revitalization (POWER) Planning — Catalyst Connection is working with Greene County and members of the Investing in Manufacturing Communities Partnership (IMCP) to assist coal-impacted communities. Efforts include outreach and resources for young adults and “makers” to find careers in manufacturing. Funding for this grant is provided by the Department of Commerce’s Economic Development Agency.

Southwestern Pennsylvania Defense Industry Partnership — Catalyst Connection is proactively assisting manufacturers in the defense supply chain to help them diversify their business, strengthen their role in their respective supply chains, and meet the new cybersecurity requirements established by the Department of Defense (DOD) and NIST. Funding for this grant is provided by the Office of Economic Adjustment, a U.S. DOD Field Activity, through the Commonwealth of Pennsylvania Department of Economic Development, and managed by Innovation Works.

Southwestern Pennsylvania POWER Manufacturing Initiative — Catalyst Connection is providing assistance to companies who have been negatively impacted by the downturn in the coal-related manufacturing supply chain. This assistance includes mini-grants for 25 manufacturers to engage in continuous improvement projects that support new technology development, market diversification, business growth and job creation. Funding for this grant is provided by the Appalachian Regional Commission through the Southwest Pennsylvania Corporation.

University of Pittsburgh Manufacturing Accelerator Program — Catalyst Connection supports the University of Pittsburgh’s Abstract Lean Assembly Accelerator and facilitates connections between the accelerator and local manufacturing companies. Funding for this grant is provided by the Department of Commerce’s Economic Development Agency through the University of Pittsburgh.

PHOTO: 5 GENERATION BAKERS
As a recipient of an ARC Power Mini-Grant, Schroeder Industries benefited from a 30% reduction in the cost of their continuous improvement culture initiative.

“In manufacturing there will always be road blocks, but the KEY is to build a cohesive TEAM with a common goal, while focusing on continuous improvement and employee engagement. This creates an organizational culture of trust and cooperation to thrive and succeed in this competitive world.”
— John Ciora, Plant Manager, Schroeder Industries

Schroeder Industries is a leader in Advanced Fluid Conditioning Solutions.® With over 70 years of filtration experience, Schroeder designs, produces and delivers engineered filtration and condition monitoring solutions for fuel, hydraulic, lubrication, gas and process water applications.

Schroeder was looking to develop their core talent leadership skills while developing a culture of continuous improvement throughout the entire organization. Schroeder’s management team worked with Catalyst Connection to develop and execute a continuous improvement project to achieve these goals with the following deliverables:

• Lean Enterprise Assessment

• DDI Leadership Essentials Training — skills and exercises to help turn supervisors and managers into effective leaders with courses focused on: confronting challenges, communicating, coaching, resolving conflict, delegating and managing resources.

• Lean Certification — a comprehensive training program to provide participants with a solid foundation in lean principles including: cellular manufacturing, practical problem solving, 5S system and setup reduction.

By using the ARC Power Mini-grant program, Conspec Controls, Inc. had 30% of the cost of their strategic marketing project covered by grant funds.

“Our new marketing plan and website will help us to gain exposure in the highly competitive gas detector industry through targeted advertisements, focused lead generation and search engine optimization.”
— Benjamin Cope, Inside Sales and Sales Support Manager, Conspec Controls, Inc.

Conspec Controls, Inc. manufactures affordable and robust gas sensors, detectors, and systems for numerous industries in a variety of diverse applications. They are involved in the design, development and manufacture of gas detection instruments, monitoring and control systems and underground radio communication equipment and systems. Conspec products were first used in the mining industry to protect lives and property in one of the harshest environments.

The company was looking to expand into new markets and compensate for the loss of revenue impacted from the reduction in coal mining. Conspec worked with Catalyst Connection to develop and execute a strategic marketing plan that would improve their online visibility with the following deliverables:

• Roadmap for Growth Assessment Report

• Strategic Marketing Plan

• New Website — a clean design that is user-friendly and allows Conspec to make updates quickly and easily.
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Manufacturing is the
4th Largest Industry in
Southwestern Pennsylvania

PHOTO: RE2 ROBOTICS
Through active collaboration with our clients and the manufacturing community at large, we contribute to the growth, vibrancy, and ongoing robustness of manufacturing in our region.
Catalyst Connection CELEBRATES 30 Years of Assisting Manufacturers with their People, Process and Products