Developing a Technology Strategy

by Bob Zaruta, President/CEO, NWIRC

As a follow-up to my column last month pertaining to the question “How do you embrace technology?” I’d like to continue with the advanced manufacturing technology (AMT) discussion. After you determine that your company is either an Innovator or Laggard (or somewhere in between) when it comes to adopting new technology-you may better understand your challenges and potentially who you need on your team to develop a future strategy. Once again, I will draw upon a historical article that I think has very pertinent information that can help manufacturers today. The Journal of Technology Management & Innovation published a study in September 2012, “Advanced Manufacturing Technology Adoption in SMEs: An Integrative Model”¹, which cited the objective to “assess critical factors that influence adoption of AMTs and identify hurdles and barriers which prevent small- and medium-sized manufacturers generate business results and thrive in today’s technology-driven economy. As part of the MEP network, NWIRC is here as a resource to support manufacturers in northwestern Pennsylvania with their strategies to stay competitive. In other words, we can help you develop a roadmap.

We partnered last month with the Northwestern PA Chapter of NTMA (National Tooling and Machining Association) who hosted the Manufacturing Advanced Expo in Erie. The purpose of the event was to showcase the latest technology to regional manufacturers so they can see the equipment or applications first-hand and speak directly to company representatives. The successes of this event, with over 180 attendees and 40 exhibitors, demonstrates that manufacturers in our region are looking to stay progressive when it comes to technology and are seeking more information about advancing their businesses into the Fourth Industrial Revolution.


Continued on Page 2

Congressman Thompson visits Franklin Industries.

In This Issue

1 Developing a Technology Strategy; Thompson Visits Franklin Industries
2 CTC Packaging: E3 Project Jump Starts Continuous Improvement
3 Kata in Classroom (or Shop Floor)
4 Upcoming Training Events
Continued from Page 1

Approximately 1 year ago, the company embarked on a lean journey via the NWIRC’s Lean Together™ working group focusing on concepts from the book, 2 Second Lean, by Paul Akers.

Participants of the tour included company Owner, Nathan Kovalchick; Operations Officer, Don Smith, NWIRC Strategic Business Advisor, Susan Hilleman; as well as Congressman Thompson’s District Staff Peter Winkler and Brad Moore. Congressman Thompson was impressed with the quality steel products being made in Franklin and distributed across the country, but also by the significant results the company has realized from improvements implemented over the past year, many of which were ideas from employees. “We’ve made some major changes over the last year without large capital investments. We’ve invested in our people and in changing processes,” said Smith. It was evident from the tour and information shared that the employees at Franklin Industries are engaged and excited to share the company’s story.

CTC Packaging: E3 Project Jump Starts Continuous Improvement

Founded in 1955, Clinch-Tite Corporation began a pallet manufacturing business in Sandy Lake, PA in Mercer County. Now a family-owned business, the Staples family purchased the company in 1973 and currently employs just under 50 team members. In 2015, the company changed its name to CTC Packaging to better reflect the company’s unique and cost-effective supply chain packaging programs that reduce the total cost of acquisition and ownership of all packaging, pallet, crating, and supply chain requirements.

CTC Packaging was interested in gathering accurate data to evaluate their energy usage/conservation efforts in order for their business to improve in both efficiency and safety. Maintenance Director, Chris Groger, had been working with team members on continuous improvement initiatives to conserve energy and become more efficient. They recognized the value in having accurate data to assess areas of operation for the impact on energy efficiency for both their facility and the environment, as well as increased safety for their employees.

NWIRC facilitated discussions regarding a project related to E3 (Energy, Environment, Economics) among the expertise of the Pennsylvania Technical Assistance Program (PennTAP) and Lean Consultant, Craig Corsi. Via a grant through the Department of Energy (DoE), PennTAP was able to offer support from senior engineering students to provide a customized, hands-on analysis of production processes to identify efficiency gains, cost reductions, waste, emission reductions, and energy savings. Due to the strength and durability of the wood, the saw line is responsible for the majority of the electrical usage, historically cutting approximately 7,000,000 board feet each year. PennTAP provided a detailed technical and economic analysis of this usage. The lean consultant also worked with the CTC team to gather additional data including fuel consumption rates and jitney fleet costs, as well as diagramming flows of equipment and processes and cycle times. This was done to chart findings and develop various layout/design options to evaluate costs and benefits of product movement throughout the entire facility as part of CTC’s continuous improvement initiatives.

The E3 efforts resulted in a team effort to gather accurate data which led to an optimal layout design reducing the energy used and a reduction in the amount of distance, time and costs associated with moving product throughout the facility. It also reduced the risks associated with worker safety and provided validation of CTC’s plans to install a new saw line to replace two existing saw lines, significantly reducing energy usage and increasing efficiencies. All E3 project expenses were covered under PennTAP’s DoE grant. The E3 project was successfully completed and the company planned to apply for the USDA Rural Energy Assistance Program (REAP) grant to help offset the costs of the new saw line equipment. “The Northwest IRC is a great organization to work with,” said Chris Groger, CTC Packaging’s Maintenance Director. “They provided help by listening and then being responsive, bringing resources to

Continued on Page 3
Continued from Page 2

the table to address our needs. This E3 assistance will ultimately make CTC a more competitive company and provide a more energy efficient and environmentally sound footprint.” He said the anticipated impact from the project is projected to be $20,909 in cost savings; $500K in plant/equipment investment, and $400K in cost avoidance.

Kata in the Classroom (or on the Shop Floor)

Ashleigh Walters, President of Onex Inc and Vice-Chair of NWIRC’s Board, recently spoke at RB Wiley Charter School and Iroquois Elementary School for their Career Days. She taught the students the Improvement Kata four step scientific pattern of thinking and explained how problem solving is a critical skill to learn for the manufacturing industry. Onex has also used this simple Kata in the Classroom simulation as part of their team meetings to assist continuous improvement initiatives.

NWIRC has several free Improvement Kata Workshops scheduled in June throughout the region to teach this skill to others. The program involves a simulation exercise to learn a pattern of scientific thinking to help anyone (no matter the age) achieve difficult goals...from improving processes within manufacturing to teachers working on projects with their students. The programs are held from 8:30-10:30am, and here is the lineup: (See more details at www.nwirc.org/events.)

June 6: Warren
June 19- Bradford
June 19- Oil City
June 26- Erie
June 28- Clarion

Lean Together™ 1.0

Lean Together™ 1.0 sessions are scheduled to begin. This working group for operational excellence is designed for manufacturing companies to study and implement concepts from the book, 2 Second Lean, by Paul Akers. The agenda provides a structured approach with practice and collaborative learning along the way.

Dean Madasz, Chief Operating Officer, Thompson Fabricating, Inc and previous Lean Together™ participant said, “Not only has 2 Second Lean helped us make improvements to our production process, but it has also been a building block for our organization to build a culture focused on teamwork, ownership of mistakes, and improved safety awareness.”

The program includes:

• 9 monthly / 2 hour sessions
• “Book club” discussions on 2 Second Lean™ (copy of the book included)
• Sessions facilitated by an accomplished Lean expert
• Facility tours of 2 Second Lean companies/ discussions with those who have navigated the journey
• 1:1 onsite assistance for each company- at your facility (2 sessions / 2 hours each)

Two groups are gearing up to start:

Mercer/Crawford Counties: July 24th (4th Tuesday each month)
Erie/Warren Counties: August 9th (2nd Thursday each month)

Contact Molly Reichard at (814) 217-6067 if you’re interested in getting involved.

Training Your Internal Auditors

Manufacturing companies who are certified in any of the quality standards, know the importance of having a trained internal auditor. Several of the quality standards have been revised over the last couple of years, including ISO 9001, IATF 16949 (previously known as ISO/TS 16949), and AS9100. NWIRC offers training courses throughout the year for these standards, as well as onsite assistance. If you don’t see a training on our schedule when you require it, just let us know. We can often provide training at your company or add another public course to our schedule.

The next ISO 9001 training is scheduled in Corry on June 19-21, 2018.
YOUR STRATEGIC BUSINESS ADVISORS

If you have questions, or would like to speak with someone from NWIRC about services, please contact your Strategic Business Advisor (SBA):

Tom Weible  
814.590.5202  
Cameron, Clarion, Clearfield, Elk Jefferson, McKean & Potter Counties

Susan Hileman  
814.572.2077  
Crawford, Forest, Mercer & Venango Counties

Joining Us Soon  
814.217.6061  
Erie & Warren Counties

UPCOMING EVENTS

**Improvement Kata**  
June 6  
Location: Warren

June 19  
Location: Oil City & Bradford

June 26  
Location: Erie & Clarion

A perfect opportunity for manufacturers in the region to learn and experience Kata first-hand! During this free 2-hour workshop, you’ll learn how Kata is used in teams for continuous improvement.

**ISO 9001:2015 Internal Auditor**  
June 19, 20, 21  
Sept 11, 12, 13  
Location: Corry / Hermitage

A 3-day course provides a detailed review of ISO 9001:2015 quality standard, including the most recent changes. Participants will learn how to conduct an audit, write the audit report, take corrective actions, and more.

**Women in Manufacturing**  
June 28  
Location: Erie

The PA Chapter of WiM will meet in Erie at Lord Corporation from 3:00-5:00pm for a tour and the hosts discussing their internal advocacy with Women in Business, and outreach to engage students (especially girls) to become interested in STEM education and careers.

**IATF 16949:2016 Internal Auditor**  
Sept 18, 19, 20  
Location: St Marys

Training of this automotive standard will provide understanding of quality management principles in context with ISO 9001:2015 and the IATF 16949:2016, along with techniques of process-based auditing. Compliance to this revised standard is required by Sept. 2018.