

The logo for the Alliance for Manufacturing & Technology (AMT & T) is displayed in white text on a red background. The letters 'AMT' are large and bold, with '& T' in a smaller font to the right.

Alliance for Manufacturing & Technology

www.amt-mep.org

**HELPING
MANUFACTURERS
PLAN, PERFORM,
PROFIT & GROW**

July 2015 • Volume 21 • Issue 7

Consolidated Funding Application (CFA) Grant Applications Due 4PM July 31, 2015

ACT NOW to complete your applications for **Workforce Training and Capital Equipment**

Governor Andrew M. Cuomo launched Round V of the Regional Economic Development Council (REDC) initiative, officially kicking off the 2015 competition for up to \$750 million in state economic development resources.

The Consolidated Funding Application (CFA) opened to applicants on May 1, enabling businesses, municipalities, not-for-profits and the public to begin applying for assistance from dozens of state funding programs, through a single application, for job-creating and community development projects.

Manufacturers typically submit CFA applications for
Workforce Training and **Capital Equipment**.

Round V of the REDC initiative will award up to
\$750 million in state resources.

The 2015 REDC Guidebook and list of available resources is accessible at:
www.regionalcouncils.ny.gov

For applicants, the CFA is available at: <https://apps.cio.ny.gov/apps/cfa/>

For assistance or additional information please call
Jim Cunningham at 607-725-1225 or jcunningham@amt-mep.org



Alliance for Manufacturing & Technology

HOW WE HELP

- Business Assessments
- Strategic Planning
- Lean Enterprise
- Supervisory Training (TWI)
- Project Management
- ISO/AS Quality Systems
- Sales and Marketing
- New Opportunity Identification and Growth — Markets, Products, Services, Customers

AM&T is a not-for-profit economic development organization that receives significant financial support from the New York State Foundation for Science, Technology and Innovation (NYSTAR), and the National Institute of Standards and Technology (NIST) Manufacturing Extension Partnership (MEP). AM&T is a NYSTAR® designated Regional Technology Development Center for the Southern Tier and is one of nearly 50 MEPs located across the country. AM&T works directly with regional companies to increase their competitiveness and profitability.

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MEP • MANUFACTURING EXTENSION PARTNERSHIP



Division of Science, Technology & Innovation

What's the Difference between Corrective Actions and Preventive Actions?

Corrective action is performed on detected nonconformities. In other words, there are real defects that exist right now and action must be taken to stop them from ever happening again in the future. Most people get this and seem to understand the concept of real defects needing to be fixed—permanently, so they do not cause further aggravation. But what about preventive actions and how is it different?

People seem to get hung up on what a potential nonconformity is and how do you prevent it from ever occurring in the first place? Potential defects are defects that could happen. I think a better description would be to call these risks. Everyone understands the concept of risk at some level. If we keep using a dull blade on a saw, then we are taking a risk because at some point that blade is going to break.

Using a dull blade is a bad business practice, right? So what other bad business practices are you using in your business that you should fix to prevent a bad outcome (nonconformity) from occurring? Potential nonconformities are all around us in every business. The question is, how do you find potential nonconformities? The best way to find them is to look for them using common quality tools.

Top Ten Preventive Actions:

1. Analyze process or product characteristics for negative trends that, if left alone, could drift into a nonconformity. Such analysis can be documented into a control plan.
2. Install alarms to warn you when your process is drifting into a nonconformity. Statistical process control

charts provide excellent alarms.

3. Review nonconformances found in similar processes, products, or companies for ideas that could be applied to your business. Benchmarking similar companies is great for brainstorming preventive actions.
4. Perform risk analysis to uncover latent hazards. Failure Mode Effects Analysis (FMEA) is a great tool for process risk analysis.
5. Implement lean thinking to eliminate wastes, which are obvious signals of latent causes of future defects.
6. Establish more rigorous training programs to continuously improve your employee's skills. Regular training introduces new ideas into your organization that can be sources of innovation that prevent nonconformities.
7. Introduce disaster recovery, security, and contingency plans for unpredictable situations, hazards, or safety conditions.
8. Set up preventive maintenance & calibration control programs to ensure your equipment is always safe, available, and performing optimally.
9. Begin supplier surveillance audits to assist your supply chain in delivering quality product to you consistently.
10. Analyze your process capabilities to create a foundation for improvement. Use Capability Maturity Model (CMM) or Capability Maturity Model Integration (CMMI) for inspiration.

Getting Involved Manufacturing Day 2015



INSPIRING TOMORROW'S MANUFACTURER TODAY!

Watch the Recorded Webinar

For those of you who weren't able to attend the live webinar, it has been posted on mfgday.com as a two-part video recording of the presentation.

Titled "Getting Involved in Manufacturing Day", it:

- walks you through the why and how of MFG DAY event hosting
- demonstrates the new online event registration process
- answers common questions about participating in MFG DAY

Follow this link to watch the webinar: www.mfgday.com/getting-involved-webinar



Just the Slides

For those of you who prefer just the webinar PowerPoint slides, they are posted on mfgday.com as well. You can download them by following the link below. Please share with anyone who may want to host an event!

www.mfgday.com/resources/manufacturers-powerpoint



Quick Start Guide

Ready to start planning your MFG DAY event but don't have a lot of time? Try the "Quick Start Guide" - a one-page document that breaks the entire process down into four simple steps.

www.mfgday.com/resources/quick-start-guide

Three Critical Ingredients for Innovation

By Michael Graber

Our firm, the Southern Growth Studio, helps many companies with innovation. We help with projects labeled as innovation and we also consult on how companies set up the processes, framework, and governance for successful innovation. Based on our experience, we know that three key things must be in place for innovation to flourish.

If innovation is to become the No. 1 strategy priority to drive growth and wealth creation, these three ingredients must be in place:

- **First, senior management commitment.** Innovation must be in the company's vision, goals, and metrics – and conversations must take place about innovations on a continuous basis. Innovation needs to be valued and practiced as a core discipline of the firm. Senior leaders need to model this importance. Senior management commitment is more than twice as important as any other factor in determining the success of innovation at a company.
- **Second, teams over technology.** Innovation isn't about the collaboration software. It's about people. Multi-disciplinary teams who follow a process with an open spirit of collaboration score best.
- **Third, define types of innovation.** Incremental innovations are wholly different animals compared to breakthrough, game-changing innovations. Define the objective of each project or mission with care so you can better manage expectations.

With these three ingredients in place, a company can use innovation to fuel organic growth.

Have You Explored Every Business Growth Alternative?

By: Marty Zwilling

Startups are usually so focused on selling more of their branded product or service to their own customer base (organic growth) that they don't consider the more indirect methods (non-organic growth) of increasing revenue and market share. Non-organic growth would include OEM relationships, finding strategic partners, "coopetition," as well as acquisitions.

The initial focus only on organic growth is usually driven a passion for the product, and by limited financial and people resources, as well as the limited experience of the executive team. Yet a creative and skilled team will often find that non-organic growth techniques can better leverage these limited resources in scaling the business.

An example of a startup which used non-organic growth early and effectively was Microsoft. Bill Gates started producing software solutions, like his Basic Interpreter and MS DOS, but quickly focused on adding thousands of small partners for applications, and major partners like IBM, Intel, and other hardware manufacturers. Even mergers and acquisitions (M&A) came quickly.

Some people feel that organic growth is "better" because it requires real innovation and sustained effort to create long-term competitive advantage through differentiation and efficiency. They might agree that it cannot compensate for the speed and scale of growth of the non-organic approach, but has lower risks of failure.

Despite the risks, there are many advantages of non-organic growth, especially in startup environments:

- **New product or service lines.** Organic growth assumes innovation in the product or service, but non-organic growth through white labeling and strategic partners may add totally new brands and services to your revenue stream.
- **Fresh customer base.** Teaming with another company, or buying another company, can add

new geographical locations and new customer segments to the business. These relationships need not require cash investments; often they are done with exchanges of equity or assets.

- **Economies of scale.** In many cases business opportunities with competitors (coopetition) will open up a new marketing channel, and definitely give you the cost advantages of scale. Economies of scale also apply to marketing, distribution, and sales.
- **New management skills.** New business relationships mean new perspectives and new executives working on the opportunity. This can be a significant competitive advantage over major competitors, and overall reduces competition in the market place.

I'm certainly not proposing that one mode should be used to the exclusion of the other. Rather, I recommend that you pursue both concurrently, per the advantages of each. For example, if you are in an industry which is fragmented or has a slowing growth rate, with too many competitors, non-organic growth may be required for survival.

Use organic growth options for things which you do best, where there is plenty of room for growth by selling your products in new geographic areas, or using new sales channels, such as through a wholesaler or website. Organic growth is typically safer because you're using a tried-and-tested business model, and you can reinvest profits back into the business.

Certainly non-organic growth has its pitfalls. Entrepreneurs, while partnering with or acquiring a new business, must check for compatibility and strategic fit. Yet startups looking for investors need to evaluate all the growth alternatives from the very beginning. "No growth" or even slow-growth companies waiting for an Angel may have a long wait.

The Need for Training Within Industry (TWI)

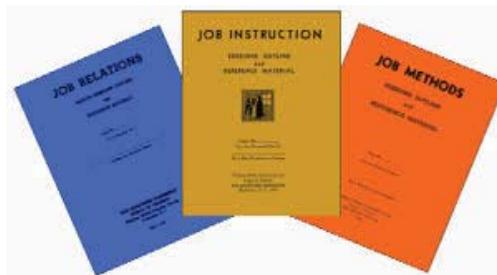
By: Jamie Flinchbaugh

Standard work is one of the most challenging aspects of a lean transformation. It is both foundational and frustrating. It is hard to observe work without a common method for work. It is hard to experiment without a standard. It is, in some ways, the backbone of continuous improvement.

Standard work manifests itself through many different tools and methods. One method that is underutilized is TWI, or Training Within Industry. I recently attended the TWI Summit, and was impressed by how committed many organizations have been to the effective utilization of TWI. There were many examples of success, from LEGO to hospitals. I won't make this column about the basics of TWI, as you can easily research that on the internet, buy a book or take a course from one of the many organizations that teach it. I want to instead focus on some of the challenges that remain with making TWI as effective as we all need it to be.

TWI is primarily rolled out through three mechanisms:

- **Job Instruction**, or JI, is a method to provide training on how to perform a job.
- **Job Methods**, or JM, is a simplified way to break down a job and improve it through eliminating, combining, rearranging or simplifying the elements of the job.
- **Job Relations**, or JR, helps supervisors systematically work with people and develop teamwork.



The first big challenge organizations face in the systematic adoption of TWI is finding the resources to engage in the development and deployment of such training mechanisms. Most organizations have decimated their training functions, mostly because they didn't have a productive way to make them useful. Maybe that has changed with the reintroduction of TWI, but the resources aren't there to make the case.

An even larger problem to overcome is the reliance on front-line supervision. While I've met droves of capable front-line supervisors, on the whole this is one of the most underinvested-in and underappreciated workforce groups we have. Front-line supervisors are essential to making Training Within Industry work, but this is a group that often feels confused about what is expected of them in their roles.

While this has been a trend underway for a couple decades,

there are new challenges faced in increasing levels: languages and geography.

Whether in one location or a global organization, having to train in multiple languages is a legitimate challenge. Most translation services either do not understand the content required for contextual or technical training, or you spend a small fortune gaining that context. And even if you have the materials, it's not terribly unusual to have a supervisor who speaks one language and a front-line employee who speaks another language, creating another barrier for engagement.

Geography makes that even more difficult. Many resources are spread across the globe, and not always in nicely replicated organizational structures. I know many managers with direct reports, even at the front-line level, spread across three continents. I've even seen that due to legal travel restrictions, a manager is unable to visit the country of a direct report, requiring that they meet in a neutral country. These problems used to only exist at top management levels but they exist more and more at every level of the organization.

Lloyd Johnson of AM&T is a provider of TWI.
Contact him at
ljohnson@amt-mep.org or 607-227-6229



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Benefits of Becoming an AM&T Associate

- Four free hours of consulting services.
- Your company's profile will be featured in the "Associates' Corner" of our monthly newsletter, which is distributed throughout eight counties: Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tompkins, and Tioga. Also, the newsletter is featured on our website giving your company worldwide exposure.
- Discounted fees at AM&T sponsored seminars & workshops.
- A free Performance Benchmark and Transformation Planner (\$2,500 value).
- A link to your company's website from ours.
- Assistance with Technology Transfer, Funding Sources, Venture Capital Investment, Networking, Research & Development Programs, etc.
- Highlighted in the "Made in the Southern Tier" directory of manufacturers.

Call Jim Cunningham at 607-725-1225 to ask about becoming an associate.

More information at www.amt-mep.org

Associates' Corner

Stan's NOTUBES

Stan's NoTubes - Fourteen years ago, Stan Koziatek took a fresh look at a problem that had forever plagued cyclists -- flat tires. Since the root cause of the problem was failure of the inner tube to hold air, his solution was to enable riders to eliminate the inner tube and make the tires self-sealing. This idea propelled Stan into a series of innovations and experiments, resulting in a patented rim design and a world renowned tire sealant.

Like many innovators, Stan's ideas were initially dismissed by industry experts, but he was persistent. He would show up at the start of national-series mountain bike races and punch holes into his own tires with an ice pick. His sealant would almost immediately fill the holes and allow Stan to ride as low as 18psi. The world's top riders took note, often switching to Stan's products and peeling off his decals to avoid upsetting their sponsors.

In order to offer his better tubeless tire system to an expanding bicycle market, Stan and his wife Cindy founded Stan's NoTubes. This was a great partnership with Stan as the Chief Technical Officer and Cindy as the Chief Financial Officer. Under their guidance the company located in Big Flats has grown to employ 35 people.

While the core product line of Stan's NoTubes remains the innovative sealant and

tubeless conversion kits that helped establish the brand, the company is increasingly expanding into more advanced products and materials, including a new line of carbon fiber wheelsets. In recent years the company has seen tremendous growth in its wheelset division, based largely on a technology Stan patented, Bead Socket Technology, that allows rims to better hold tires and allow an air tight seal for tubeless use. The technology allows for lighter rims, improved durability, increased tire traction, and decreased chance of flattening. Stan's rim design rolled across the line first at the Beijing Olympics, and even more recent innovations in carbon fiber technology have helped maintain the company's broad acceptance as the worldwide industry leader in tubeless technology.

Stan's NoTubes products are sold through US dealers, US distributors, fifty international distributors, and the company's own website which incorporates extensive customer support content, both for pre and post-sale. Their marketing program also relies on active use of social media sites. Two major industry publications have included Stan in their short list of the most important people in cycling.

For more information, see www.notubes.com or call 607-562-2877

Made in the Southern Tier

Increase Your Exposure – add your company to this FREE directory of manufacturers

AM&T has launched **Made in the Southern Tier** – an online directory that showcases our region’s companies and the vast array of products that are manufactured here.

Inclusion in the directory is free to all Southern Tier manufacturers. Benefits include:

- Enhanced exposure to top-level search engines such as Google

- Greater likelihood that world-wide customers can find you
- Ease of finding regional suppliers and partners for your production needs
- One source for regional companies to find manufacturing suppliers

In addition to descriptive text and

contact information, the company profiles include logos, product images, videos, and more – a comprehensive yet compact showcase.

Learn more at www.amt-mep.org. Click on “About the Directory” or “View Manufacturers”.

To qualify for inclusion in the directory, a company must be a manufacturer, with a NAICS code between 311-Food Manufacturing and 339-Miscellaneous Manufacturing. Also, the company must be located in one of the following New York counties: Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga, and Tompkins. When a new company profile is submitted, it will be reviewed and confirmed by AM&T staff before it appears in the directory.

If you represent a Southern Tier manufacturer and would like to include your company in the directory at no cost, please complete the information form at:

www.blog.amt-mep.org/?p=525

Around the Southern Tier

Jul 15	Business After Hours - The Tompkins County Chamber - 607-273-7080
Jul 16	Understanding the Challenges of Attracting & Retaining Skilled Employees - The Corning Area Chamber - 607-936-4686
Jul 16	Business After Hours - The Corning Area Chamber - 607-936-4686
Jul 16	Need a Facebook Business Page? - SBDC at Corning Community College - 607-937-6861
Jul 16	SBC Network Lunch - The Greater Binghamton Chamber - 607-772-8860
Jul 21	U.S. Department of Labor New Proposed Fiduciary Regulations - The Corning Area Chamber - 607-936-4686
Jul 23	Business After Hours - The Chemung County Chamber - 607-734-5137
Jul 28	Chamber 101 Session - The Greater Binghamton Chamber - 607-772-8860
Jul 31	CFA Grant Application Deadline - See Page 1
Visit http://amt-mep.org/index.php/news-and-events/training-and-events/ for additional events	

Please add mailbot@amt-mep.org to your address book or safe list to receive AM&T e-News. To subscribe to electronic or paper versions of our newsletter or to update your mailing address visit: www.amt-mep.org then select News and Events from the menu.

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HELPING MANUFACTURERS PLAN, PERFORM, PROFIT & GROW

We are a team of experienced, skilled consultants and trainers dedicated to helping manufacturers in the Southern Tier of NY plan, perform, profit & grow. Our goal is to have manufacturers remain, grow and prosper in the Southern Tier.

AM&T uses a comprehensive, overall business approach to create significant and long-lasting business improvements. Our experience is that individual improvement methodologies will provide some measurable benefits on their own, but it is the combination of them across the whole value chain that will lead to dramatic gains.

WE HELP BUSINESS LEADERS:

- Assess their current state
- Articulate and define their desired future state
- Train their workforce in improvement methodologies
- Implement process improvements across the whole value chain
- Identify new opportunities
- Achieve and sustain growth and breakaway results

AM&T DELIVERS:

A third-party survey for 2009-2014 reported impacts of:

- 3,435 jobs created or retained
- \$545 million in increased or retained sales
- \$13 million in cost savings
- \$42 million in investments
- \$764 million total impact
- 4.7 out of 5.0 Customer Satisfaction

OUR SKILLS:

- Business Assessments
- Strategic Planning
- Lean Enterprise
- Supervisory Training (TWI)
- Project Management
- ISO/AS Quality Systems
- Sales and Marketing
- New Opportunity Identification and Growth — Markets, Products, Services, Customers

Our integrated, comprehensive approach, applied to the whole value chain, can make a difference. We are "hands-on", roll-up-your-sleeves people and we're passionate about manufacturing.

Call Jim Cunningham at 607-725-1225 to ask how we can help.