

Highlights for AM&T During the Past 12 Months

June 30th brings AM&T's fiscal year to a close and serves as a time to reflect on our accomplishments and plan improvements and activities for the next year.

During the last 12 months we were able to assist 75 companies. We engaged with 28 companies on in-depth projects on ISO/AS Quality Systems, providing assistance with prepping for Certification, performing internal audits, coaching, and mentoring. We're pleased to report that 6 companies received internationally recognized certification as a result of those efforts.

We also provided 16 companies with in-depth projects on Lean, helping them with workforce training that focused on Lean concepts, tools, and thinking. That was followed by implementing Lean in their manufacturing and support operations. We were also active in promoting Lean to the broader Southern Tier manufacturing community, arranging tours and workshops to see Lean in action.

AM&T co-sponsored two Pre-Seed Workshops held at Binghamton University and Cornell. These workshops help idea teams move closer to launching their ideas into manufacturing companies. AM&T provided staff members who served in the roles of workshop facilitator and coach.

We also partnered with the Finger Lakes Entrepreneurs Forum, and helped obtain Trade Adjustment Assistance grants for four companies with problems related to foreign competition.

We partnered with Cornell's Center for Materials Research to host a Solutions Fair for manufacturers, connecting them with available state-wide resources. Assistance was also provided to several new start-up companies, and several existing



companies in the areas of strategic planning for growth, sales, partnering, access to funding, pricing and new product development.

Our success is evaluated by the impact we have on our customers. This impact is determined through a third-party survey process, conducted quarterly. Here's a summary of results reported for 2012-13:

- **\$85m in New/Retained Sales**
- **\$.8m in Cost savings**
- **\$6m in Investments**
- **715 Jobs Created/Retained**
- **\$127m Total Impact**
- **141:1 ROI**

Congratulations to the staff and our partners, and thanks to the hundreds of companies in the Southern Tier who have allowed us to assist, enabling them to improve and sustain their performance, growth and profitability.



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.

This publication is funded in whole or in part by NYSTAR. Any opinions, findings, conclusions or recommendations expressed in this publication are those of the author(s) and do not necessarily reflect the views of NYSTAR.



MEP • MANUFACTURING EXTENSION PARTNERSHIP



Empire State Development
Division of Science, Technology & Innovation

What We've Been Doing to Spur Innovation, Promote Growth, and Improve Profitability

- Successfully conducted three (3) Lean Set-up Reduction workshops at one company. A total of 24 supervisors were trained in the lean quick changeover techniques. Set-up times for three (3) different machine types were reduced by over 40% each. The new changeover methods will be standardized across all similar machines to multiply the reduction in savings.
- Assisted 2 companies in preparing for ISO9001:2008 Certification which they received in April & June respectively. Assisted in developing an ISO compliant Quality Management System and preparing for ISO certification assessment. ISO certification will result in new customer orders.
- Conducted an 8-hour Lean for Manufacturing workshop, training participants in Lean Thinking and how to apply Lean tools & concepts. The training was attended by 13 people. (open-enrollment).
- Partnered with the local SME chapter to conduct a Lean best practice tour to see demonstrations of Lean principles applied to manufacturing and share. The event was attended by 35 people.
- Conducted a 2-day Lean Six Sigma working session to provide Lean Six Sigma training to build awareness and develop a strategy and roadmap for Lean Six Sigma implementation.
- Conducted an 8-hour Lean for Office workshop, training participants in Lean Thinking and how to apply Lean tools & concepts to support and administrative processes. The training was attended by 16 people and identified numerous potential opportunities.
- Completed a 5-day Cellular Flow Manufacturing event. The team designed a cell that incorporated all assembly, welding and inspection operations. The cell design will result in better flow and quality, and less WIP, distanced travelled and floor space.
- Conducted a half-day training session in Lean Supply Chain and Collaborative Transportation. The event was attended by 18 people.
- Conducted a 5-day "order to cash" value stream mapping event on a major product family. It is anticipated that when implemented, the plan will result in a significant reduction in lead times, inventory, and floor space, and an increase in quality and productivity.
- Conducted Internal audits at 7 companies, helping to keep their systems in compliance, prepare for surveillance audits and improve their systems.
- Facilitated a Pre-Seed Workshop at Cornell to lead six teams through the process of discovering if each of their innovative technologies has the potential to be commercially successful.

Basic Project Management Training

A “train and do” workshop introducing the basics of Project Management, including classroom presentation and exercises on how to organize and manage projects and bring them to a close – on time and on budget.

Are You a Project Manager?

Today, everything is a project with more and more people finding themselves in a project management role of some type. You don't have to have the title of Project Manager to manage projects.

A Project is a temporary collection of related tasks to achieve a desired and usually unique result. What do you think? Do you find yourself managing a collection of related tasks to achieve a desired result? If so, you qualify as a project manager. Businesses today are evolving, downsizing, and pushing more work down the organization chart. You may be a project manager and not know it. But what if you haven't been trained as a Project Manager with the necessary skill and tool sets?

WHO SHOULD ATTEND?

This training is for manufacturing, engineering, and installation personnel with project leadership responsibilities, whether in a new role or just in need of a refresher.

COURSE OUTLINE:

- Introduction to Project Management
- Individual Roles and Responsibilities
- Defining the Mission & Approach
- Methodology Overview
- Work Plan Review and Sign-off
- Project Tracking (Working the Schedule)
- Action and Contingency Plans
- Project Status Reporting
- Book shelving Project Management Data

(Course materials are based on methods described in the Program Management Body of Knowledge (PMBOK), published by the Program Management Institute)



**Date, Time and Place to be Determined
by Level of Interest**

Planning a late summer or early fall class

Cost: \$200 (\$150 for AM&T Associates)

Register your interest on-line at
www.amt-mep.org
or contact Kathy Peacock at
607-774-0022 x308

Meet your Instructor: Lloyd Johnson is a graduate of Syracuse University where he earned a B.S.E.E. and an MBA. Lloyd has over 30 years of experience in manufacturing, quality and program management. Lloyd is a Professional Business Advisor (PBA), a certified Project Management Professional-certified by the Project Management Institute, and is certified to teach Training Within Industry (TWI).

Setting Goals with Lean Thinking

by Chris Anderson

Lean is not a set of tools, a set of procedures to follow, or a series of logical steps. Lean is a thought process, a culture, and belief system. So the most important thing is how to change the thinking in your organization so that lean happens. First we need to identify our goals. For this we use position goals.

Instead of looking at how to change a situation from the outside, we examine it from the inside to discover its potential energy and find the energy flows. In other words, we need to determine the natural forces of flow or the starting point position of the situation and then use this flow to achieve the results we desire.

As we implement lean, the focus is not on the lean tools but instead our own thinking of what the customer needs, wants, and values. We look for ways to build flexibility into the system to handle the variation in customer demand instead of forcing the customer to fit their demand into our system. We look for solutions that increase flexibility and create a more agile system. Your thinking governs your performance. So, if you fail to change your thinking, you have failed to truly implement lean.

When we start with the right goals, we are working towards the right answers. The result is to end up with the right solution to the right problem. If you understand the flows inside your organization then you are half-way to thinking lean. The other half is to understand how to use those flows and the lean tools to achieve your goals. That is the power of position goals and lean thinking together.

AM&T Board of Directors

As a not-for-profit, AM&T is governed by a Board of Directors drawn largely from the Southern Tier's private sector. These executives serve on a voluntary basis and are a valuable resource to AM&T. Their services are much appreciated. AM&T's current board members are:

Mr. Neil Fifield (Treasurer)
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Oneonta, NY

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One Riverfront Plaza
Corning, NY

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Elmira, NY

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Social Enterprise Director
Challenge Industries, Inc.
950 Danby Rd
Suite 179
Ithaca, NY

Thank You for Your Service

SBIR & STTR

Funding Innovation with Federal R&D Grants

\$70-100 million in federal research and development grants is awarded to NYS companies annually through the SBIR and STTR programs. These programs, providing up to \$1,150,000 per project, are available to firms with up to 500 employees.

What are SBIR & STTR?

Small Business Innovation Research (SBIR) and Small Business Technology Transfer (STTR) awards are federal grant programs for early stage innovative technology development. Eleven federal agencies independently and competitively award grants in categories of research supporting their strategic priorities:

- Dept of Agriculture
- Dept of Commerce
- Dept of Defense
- Dept of Education
- Dept of Energy
- Dept of Health & Human Services
- Dept of Homeland Security
- Dept of Transportation
- Environmental Protection Agency
- National Aeronautics & Space Admin.
- National Science Foundation

Products and services developed through these programs profit the company and the country. Over 50% of both innovations and new jobs are created by small businesses. By supporting companies during the early, high-risk, stages of development, the government stimulates innovation and helps to build a strong economy.

Three-Phase Program

Following submission of proposals, agencies make SBIR awards based on small business qualification, degree of innovation, technical merit, and future market potential. Award recipients follow a three-phase program:

- **Phase I** is the start-up phase. Awards of up to \$150,000 for approximately six months support exploration of the technical merit or feasibility of an idea or technology.
- **Phase II** awards up to \$1 million for as many as two years to expand Phase I results. During this time, research and development is performed and the developer evaluates commercialization potential. Only Phase I winners are considered for Phase II.
- **Phase III** is the period during which Phase II innovation moves from the laboratory into the marketplace. No SBIR funds support this phase, but companies are eligible for contracts to implement the technology on a non-competitive basis.

Qualifications

Businesses must meet certain eligibility criteria to participate in the programs:
American-owned & independently operated
For-profit
Principal researcher employed by business
Company size less than 500 employees

AM&T – Your Partner in Success

AM&T offers Southern Tier companies the following types of assistance:

- Strategies on approaching SBIR/STTR
- Coaching on licensing issues
- Coaching through the proposal writing process
- Proposal review before submission to the funding agency
- Transition assistance, Phase I to Phase II and Phase II to Phase III
- Understanding what improvements are needed on a rejected proposal
- Commercialization assistance

Second Nation-wide Manufacturing Day Planned for October 4

The first-ever “Manufacturing Day” was so successful last year that the sponsors have decided to do it again. The National Institute of Standards and Technology’s Manufacturing Extension Partnership program, the National Association of Manufacturers and the Fabricators and Manufacturers Association have scheduled this year’s National Manufacturing Day for October 4. Last year’s event involved more 7,000 people participating in 240 open houses and public tours of manufacturing facilities.

The sponsors want companies to be involved in improving the public’s negative image of manufacturing as a means to attract young people into the sector by making them excited about careers in manufacturing. Companies interested in opening their plants and educating the public can go to www.mfgday.com.



Alliance for Manufacturing & Technology

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

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

More information at www.amt-mep.org

Associates' Corner



MPL has been a contract manufacturer of printed circuit board assemblies since 1990. The company occupies a 15,000 sq ft facility in the Warren Road Business Park in Ithaca. The company can handle a variety of assembly needs. Their surface mount dept. features four DEK® 248 semi-auto surface mount screen printers, three manual printers, and four prototype assembly lines with paste and adhesive dispensing capabilities.

Equipment also includes six Samsung® CP45's full vision pick and place machines, two of which have a 40mm camera specifically for placing fine pitch components and micro BGAs.

Additionally, MPL has four Heller® 1700 model reflow ovens, complimented by 10 through-hole work stations, a through-hole insertion push line, and an Electrovert Econopac one-wave solder machine. They also have a selective solder system and

in-house X-ray inspection capabilities.

MPL provides surface mount, thru-hole, and mixed technologies, consignment and turn-key options, labor intensive hand and automated PCB assembly, and box build capabilities. Customers include startups to Fortune 500 companies in the fields of networking, telecommunications, computers and peripherals, medical electronics, instrumentation, and consumer electronics.

The company's manufacturing capabilities include quick-turn prototyping, pre-production, low to high volume production assembly, in-circuit testing, and manufacturability recommendations.

In addition, MPL provides board rework, repair, upgrade service, and conformal coating. The company works under the IPC-A-610 Class II and Class III Workmanship Standards and is working toward ISO compliance. In addition, they meet EPA requirements and are ITAR registered.

For more information, contact: Shane French: 607-266-0480 or www.mplinc.com.

U.S. Manufacturing Jobs on the Rise

Manufacturing jobs in the U.S. appear to be coming back—if ever so slightly.

Several large American firms, have announced they're shifting some manufacturing operations back to the United States, mainly because of increasing production and energy costs overseas.

And since January of 2010, the United States has added 520,000 manufacturing jobs,

according to the Bureau of Labor Statistics. There are currently 12 million manufacturing jobs on record in the United States.

However, analysts say that catch-up mode is the new normal; that we'll never go back to the glory days but there is hope for the future of US manufacturing.

Mark Koba, CNBC

Associates' Corner



Sarnicola Simulation Systems (SSS) is a full service motion simulation company specializing in custom testing and building of motion platforms. Since its inception in 1991, Sarnicola Simulation Systems has grown considerably. Within 9 months the first patented motion platform was designed, fabricated, tested, and completed for sale.

The expanding business required more space and SSS moved to its new and present headquarters at 970 Conklin Ave, Conklin, NY. The state-of-the-art facility is now the home to one of the most experienced motion simu-

lation teams in the world. The space allows for a more suitable working environment and has room for expansion as the business continues to grow.

The services and product lines have continued to expand as customer requests and market demands have dictated. SSS has provided motion systems for entertainment, advertisement, defense and special effects. The market for SSS products and services has come from Europe, Asia, Australia, New Zealand and the United States. Sarnicola caters to both small and large businesses. Larger companies have included Lockheed Martin, Hughes-Link Training, General Motors, Chrysler Motors, and the United States Government.

The strength of SSS continues to be the ability and willingness to meet the custom requirements of the customer at a fair price.

SSS looks forward to building upon the knowledge and experience of their dedicated employees, helping you create your next custom motion system. They will custom fabricate motion systems to your requirements and specifications. Success is often attributed to a few individuals. In this case, it is achieved through the efforts of many individuals working together. SSS, assisting the World in Motion.

For more information, contact: Dr. John F. Sarnicola at 607-724-4021 or visit www.sarnicola.com

Around the Southern Tier

Jul 11	Operational Excellence in a Job Shop - AME - http://tinyurl.com/ppjo8hq
Jul 17	After Hours Mixer - Watkins Glen Area Chamber - 607-535-4300
Jul 18	Business After Business - Chemung County Chamber - 607-734-5137
Jul 18	Federal Health Reform - Tompkins County Chamber - 607-273-7080
Jul 18	Human Resources Roundtable - Tioga County Chamber - 607-687-2020
Jul 23	Chamber 101 - Greater Binghamton Chamber - 607-772-8860
Jul 24	Breakfast Bytes - Greater Binghamton Chamber - 607-772-8860
Jul 25	Speed Networking - Greater Binghamton Chamber - 607-772-8860
Jul 30	Federal Health Reform - Tompkins County Chamber - 607-273-7080
Aug 07	Small Business Training Part 1 - SBDC Binghamton - 607-777-4024
Aug 14	Small Business Training Part 2 - SBDC Binghamton - 607-777-4024

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Return Service Requested

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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 CAN HELP YOU:

- Assess your current state
- Articulate and define the desired future state
- Train your 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 2008-2013 reported impacts of:

- 3,461 jobs created or retained
- \$622 million in increased or retained sales
- \$15.0 million in cost savings
- \$44 million in investments
- \$845 million total impact
- 4.6 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.