



AM&T

Alliance for Manufacturing & Technology

www.amt-mep.org

HELPING MANUFACTURERS PLAN, PERFORM, PROFIT & GROW

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Helping Students to Consider Exciting Career Choices

DCMO BOCES hosted a successful mentor and career day at the SUNY Oneonta campus. The event entitled *It's a Guy Thing* invites middle school male students to develop a career goals framework and to connect with mentors. A similar event is held in the spring for female students. Responding to employment opportunities data, a manufacturing career workshop was introduced.

The Alliance for Manufacturing and Technology (AM&T) sponsored a Lean Manufacturing workshop led by Carol Miller, a Certified Lean Six Sigma Black Belt, and assisted by Kathy Peacock. The Lean management philosophy teaches five steps to reduce waste in a production process. Carol Miller customized the program using Lego™ pieces and led young students to work as teams, to improve production flow and achieve improved quality.

Martha Ryan, the event coordinator, commented about this resource, "When we introduce the Lean philosophy to young students, we provide a new tool to improve personal, academic and career performance. This is a tool they can apply now and in the future." Ryan explained that the program teaches teamwork and communication which are two key employment skills sought

by employers in the region. "We were fortunate to count on the support from AM&T to sponsor the program and their participation also ignited collaborations from other employers such as GE - Unison and Amphenol," said Ryan about the ripple effect from AM&T's support. The AM&T workshop was deemed the 2nd best by the students and best by the teachers.

Former educator and now successful business owner, Bruce Erath, opened the program with a clever Out Of the Box presentation. He guided boys to understand the importance of making the right decisions and to add value to everything they do. "We were fortunate to have Mr. Erath connect not only to students but also to the educators who shared excellent comments about the presentation's relevance to current challenges faced by students," said Ryan.

Students also benefited from a Financial Literacy presentation by Jim Caruso, Territory Manager at NBT Bank. Using an expense tracking document, Caruso coached students to understand the effect of compounded expenses, therefore, pointing out the benefits of saving. Educators in the audience applauded NBT Bank's presentation and considered this introduction to be very important to young students.

Beyond the call of duty, Caruso invited students to connect with him personally for questions. Parents can find more information and many resources for youth financial literacy at the NBT Bank website.

It's a Guy Thing also featured hands-on workshops. Devoted professionals from Delaware Engineering, Catskill Regional Teacher Center, UHS - Chenango Memorial Hospital, and DCMO BOCES Technology Department, provided students with the opportunity to explore careers of the future. "Post-event surveys confirmed the student's satisfaction with the interactive presentations. We value each of our presenter's time investment as they delivered a first class workshop for our students."

The *It's a Guy Thing* Career Day event is presented by DCMO BOCES with the support of SUNY Oneonta. Funding and resources for this event were provided in part by our presenters and by The Voss Group, Chobani, Scoville-Meno Chevrolet, BCK-IBI Group, Leonard Bus Sales, James Jordan Associates, and Mirabito Fuel Group. The free event is open to 35 school districts in the DCMO and ONC BOCES. For more information on how to get involved in future mentoring events, visit the enrichment programs page at www.learnatboces.com.



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



NEW YORK STATE OF OPPORTUNITY

Division of Science, Technology & Innovation

5 Ways Technology Will Transform Our Lives in the Next 50 Years

By: John Culkin, Director of Information Management, Crown Records Management

What Will the World Look Like in 2065?

In 1965, NASA was working on some of the most challenging engineering, physics and computing problems known to mankind -- preparing to get a man to the moon.

In fact, the USB storage device you may have in your pocket has more computing power than it took to get Neil Armstrong to the moon and back.

It may come as even more of a surprise that every time you do a Google search it uses more computer power than could be dreamed of back in 1965.

This year Crown Worldwide is celebrating its 50th anniversary, and we've set a challenge to reflect on how the world might look in 2065.

Robots, Robots Everywhere!

Robotics will be at the fore. Driven by technological advances in sensors, computing and materials, biomimicry will inspire new abilities that make the car-building robots as antique as old steam trains today.

Changing demographics will be another factor pushing this development, as the population ages and needs caring for.

Hospitals are clean and controlled spaces, so expect robot nursing assistants to appear before your own robot chef in the kitchen.

Goodbye Silicon, Hello Bio-Computing!

The silicon age will pass into history as bio, quantum, DNA and photonic computers make today's supercomputers seem primitive in some aspects.

Where the body's nerves are severed -- such as spinal injuries -- bio-computers will help people walk again and the blind see.

An IBM Watson in Your Pocket!

Watson, the room-filling IBM system that beat the humans in the TV quiz show Jeopardy!, will eventually become "Pocket Watson."

Today's machine learning will evolve into instant speech recognition and, importantly, the content and semantics will be considered.

Looking at small screens will be as quaint as gathering around an old wooden cabinet wireless set.

Wearables will be the norm, and some people will want to be directly connected to computers with implants to monitor health and interact with computers to enhance their normal abilities.

Finally! Safer, Easier Driving!

Travel by car will be safer -- even if not faster for environmental reasons. A car will predict traffic delays and never get lost, it will talk to traffic lights and other cars to smooth the journey.

Google already has driverless cars, and Volvo has demonstrated platoon driving to allow driving very closely more efficiently.

Avoiding travel that is not emotionally worth it will finally start to be optional.

Telepresence for businesses will finally deliver on its promises with 8k quality pictures taking up an entire wall that display realistic imagery of your choice but also for virtual meetings -- like Skype on steroids -- in 3D.

Recent AM&T Activities to Promote Manufacturing Growth & Innovation

- Conducted Internal Auditor training at company in Ithaca, NY. Eight (8) employees were trained in the ISO 9001:2008 Standard, performed an internal audit, and prepared the internal audit report package.
- Conducted an AS9100c Internal Audit at company in Elmira, NY. Minor findings were noted in a summary report. The Quality Management System was deemed compliant and effective.
- Conducted an ISO 9001:2008 & ISO 14001:2004 internal audit at a company in Rochester, NY. Minor findings were noted in a summary report and their Quality Management System was deemed compliant and effective.
- Conducted a second 3-day 5S Workshop at a company in Endicott, NY. Eight (8) employees were trained on 5S lean methods and a kaizen event was conducted in the Pin Thru-hole production area. Upon completion of the workshop, all the area was reorganized for improved work flow. This increases throughput and results in improved quality.
- Conducted TWI Job Relations workshop at a company in Elmira, NY. Ten (10) employees were trained in employee relations to build their supervisory skills.
- Assisted a company in Endicott, NY with their preparation for AS9100 QMS. Procedures were developed and reviewed.
- Performed internal and management reviews at a company in Hammondsport, NY. Four opportunities for improvement were identified, documented and corrective actions were established.
- Conducted an internal audit and management review at a company in Hornell, NY. Identified one opportunity for improvement and closed out three prior non-conformances.
- Conducted an Internal Audit and Management review at a company in Endwell, NY and documented four opportunities for improvement.
- Conducted an Internal Audit, Management review and a process assessment at a company in Horseheads, NY. No concerns were noted.
- Completed a six-day Cellular / Flow Manufacturing event at a company in Elmira, NY, with a team of 10 people. The team designed a cell that incorporated all machining and assembly operations. The cell design and layout will reduce the manufacturing lead time by over 50%, and reduced the non-valued processing time by over 20%.
- Conducted a 5S: Workplace Organization Training Session at a company in Elmira, NY. Included was an overview of 5S and how to create a plan to implement 5S company-wide.
- Completed a five-day 5S and Visual Workplace event. The team created a workplace where everything is visually clear and controlled. As a result, the workplace will produce fewer defects, less waste, fewer injuries, and fewer breakdowns. These improvements will translate into lower costs and improved quality.
- Conducted a 5-day Scheduling and Capacity Planning process mapping event with a team of six people at a contract manufacturing company in Van Etten, NY. It is anticipated that when fully implemented, the plan will result in improved on-time deliveries and reduce wastes.
- Conducted multiple 2-hour training sessions in implementing Lean in a Low Volume-High Mix environment at a company in Elmira, NY.
- Navy Protégé Program---Negotiated additional contracts with Lockheed Martin to assist a local manufacturer projects under the US Department of the Navy Protégé Program.
- Participated in Lockheed Martin AS9100 review at a company in Endicott, NY. Results of the review were satisfactory.
- Provided Quality System Support services to a company in Endicott, NY. This effort is part of the US Navy Mentor Protégé program administered by Lockheed-Martin Corporation. Conducted AS/ISO Internal Auditor Training for three (3) CFM employees - two (2) current Internal Auditors and one new Internal Auditor. An internal audit was performed as part of a practical exercise and an internal audit report prepared.
- Provided Quality System Support services to a company in Endicott, NY. This effort is part of the US Navy Mentor Protégé program administered by Lockheed-Martin Corporation. Mentored two (2) CFM Internal Auditors during an internal audit and assisted with preparing the internal audit report package.
- WDI---Continued to work with the Workforce Development Institute (WDI) and other economic development entities to maximize our impact on manufacturers in the Southern Tier. Assisted several companies with grant applications.
- Regional Economic Development Council (REDC) and Upstate Revitalization Initiative (URI)--- Attended multiple meetings and events to support Southern Tier REDC and URI efforts. Member of Clusters Workgroup.
- Center for International Business Assistance---Active member of the team that put together a proposal for submission under the URI grant application to establish the Center for International Business Assistance Center (CIBA) to be created at SUNY Binghamton. Co-author of ARC Grant to support the launch of the center.

Continuous Improvement of Your ISO or AS Certified System

So, you've developed and implemented your ISO/AS quality management system and succeeded in obtaining its certification by a registrar. The proof is hanging on the wall - your certificate of registration. Congratulations!!! Your hard work has been rewarded. But certification is not the final goal. The goal is making real and sustained improvements to your overall business. Ask yourself these questions:

- Is your ISO/AS system contributing to your overall effectiveness?
- Do you want to improve only the quality system, or improve your entire business?
- Have you integrated your ISO/AS system with your overall business system and objectives?
- Are you happy with your ISO/AS system?

Our experience is that many companies who have been certified for some length of time will answer "No" to some or all of these questions.

The ISO/AS Standard obligates certified companies to do more than just maintain their certification; it requires that you continuously improve that system and be able to demonstrate that you have done so.

You've spent a great deal of time and effort in developing and implementing the business procedures and processes that provide the basis for your ISO/AS system and its operation. Once those procedures and processes have been identified, documented and implemented, it is important to measure their effectiveness and continually improve them.

Perhaps management is increasingly challenged with the day-to-day operations of the business and often does not find/take the time to adequately evaluate the effectiveness of the systems they've implemented. Whatever the reason, it may be time to take a good look at your system, or give it a shot in the arm.

That's where AM&T comes in. We can provide your management and employee team with guidance in how to evaluate and audit the system, take effective correction action, keep on track, identify key measurements which will help you effectively monitor your implemented systems and identify potential opportunities for improving their effectiveness. Here's how the process works:

1. If you haven't already done so, we can identify the types of processes that are in operation in your business. When this step is completed, we will have separated your processes into three categories:
 - Core processes - those that are directly involved in converting your customer's requirements into cash.
 - Support processes - those that facilitate and assist core processes.
 - Management processes - those that are used to plan, organize, and measure the effectiveness of processes that have been set in place.
2. We will review your system documentation; quality manual, procedures, work instructions, and help your team evaluate their rele-

vance to your operation, and help revise if required. We can evaluate your processes identified in Step 1 to be sure that they are adequately documented and that the documentation agrees with how they are actually operating. We can help you improve those operations using Lean concepts and tools, and identify measurements that will give you the ability to assess how effectively those processes are operating.

3. We can help you monitor and assess those processes to be sure that they continue to operate the way they were planned. We'll document any concerns we identify and make sure that management is aware of them. If desired, we will assist you in making corrective action necessary to address those concerns.
4. We can help your team set meaningful business goals, using Strategic Management principles, which will provide a framework for both process and business improvement.

One of the most essential tools for evaluating implemented processes is a set of "fresh eyes" - those of individuals who have not been close to the processes as they were being defined and implemented. AM&T can bring that capability to you and, based on our extensive process analysis experience, can help you identify opportunities for making improvements.

**To learn more, contact
Jim Cunningham at
607-725-1225**

Quotes on Risk Taking

- “Whatever you can do, or dream you can, begin it. Boldness has genius, power and magic in it.” -- Goethe
- “Security is mostly a superstition. Life is either a daring adventure or nothing.” -- Helen Keller
- “It’s not because things are difficult that we dare not venture. It’s because we dare not venture that they are difficult.” -- Seneca
- “Only those who will risk going too far can possibly find out how far it is possible to go.” -- T.S. Eliot
- “What you have to do and the way you have to do it is incredibly simple. Whether you are willing to do it is another matter.” -- Peter Drucker
- “Go out on a limb. That’s where the fruit is.” -- Jimmy Carter
- “I am always doing that which I cannot do, in order that I may learn how to do it.” -- Pablo Picasso
- “Life is being on the wire, everything else is just waiting.” -- Karl Wallenda
- “If things seem under control, you are just not going fast enough.” -- Mario Andretti
- “Don’t be afraid to take a big step. You can’t cross a chasm in two small jumps.” -- David Lloyd George
- “It is only by risking our persons from one hour to another that we live at all.” -- William James

Associates’ Corner



Incodema Group expands their Freeville operations by opening a new CNC machining center & relocating the 3D plastics division to further support the growing Incodema3D business segment.

Incodema Group announced the opening of a new CNC machining Center and the relocation of its 3D plastics division, in the Incodema3D facility, during the summer of 2015. This support center has a specific focus of supporting the Incodema3D Additive Manufacturing process with secondary processes. Incodema has made a substantial equipment investment in new and relocated equipment for the center, including the addition of in-house 5 axis machining capabilities. They also continue to offer a full line of plastic Additive Manufacturing. Including - FDM, SLS, SLA, Urethane Casting & Polyjet.

In order to achieve the necessary specifications or improve properties such as surface quality and tolerances, it is often necessary to post-process and finish components produced with Additive Manufacturing techniques. Most physical characteristics of an additive manufactured part are enhanced by adding well-established, CNC post machining as an essential aspect to completing the AM process.

“The growth of our CNC support equipment at the Incodema3D facility is the next step in our strategy for establishing Incodema3D as the leader in manufacturing of additive production parts,” said Sean Whitaker, CEO of Incodema Group.

“The efficiencies we have created, by housing two of our complimentary business segments in one location, are extremely beneficial to our Additive customers. With the CNC center now fully operational, we can move into the next phase of our Incodem3D growth.”

The new support center employs several Incodema personnel and occupies approximately 6,000 square feet of the existing 60,000 square foot building. The Incodema subset of CNC additive support equipment on-site includes vertical and horizontal machining centers, EDMs and lathes. Additionally, a complete host of inspection equipment, including CMM and Romer 3D scanning equipment, has been implemented to enable the comparison of the 3D printed component and its CAD model.

ABOUT INCODEMA GROUP:

Incodema and Incodema3D are subsidiaries of Incodema Group, offering a full range of technologies and processes. Their capabilities include Industrial 3D printing, additive manufacturing, sheet metal stampings, metal forming, laser cutting, Microcut, wire EDM, CNC machining and photo chemical etching. Utilizing state of the art technology and equipment, while manufacturing parts quickly and guaranteeing full turnkey assemblies, all in-house. Incodema Group employs more than 250 people throughout its operations in the Central New York region. Additional Incodema Group companies are: NEWCUT Inc. (Newark, NY) and Engineering Manufacturing Technologies (EMT) LLC (Endicott, NY).

For more information call 607-277-7070 or visit www.incodema.com.

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

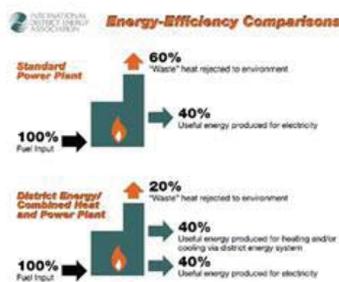
Associates' Corner



Take Control of Your Energy Costs.

ASI Energy turns your energy expenses into assets

ASI Energy, an Ithaca, New York-based energy leader, offers significant cost-saving solutions for industrial and commercial facilities. Combined Heat and Power (CHP) is a reliable source for electrical and thermal energy at a low cost without reducing your energy supply. Utilizing this innovative technology, ASI Energy takes a single fuel source, like natural gas, biogas/methane to create electricity and heat. Electricity is created with a prime mover engine and the heat is captured for use in a full range of industrial and commercial applications such as steam generation, thermal energy recovery, primary and secondary thermal energy, and preheating.



The process to determine potential savings for your operations is simple. ASI Energy conducts a client-centered Initial Facility Assessment – a complete, singular appraisal of your facility's energy needs and then generates a guaranteed savings proposal includ-

ing financing options, possible grants and tax incentives, emission savings as well as project NPV and IRR calculations customized for your organization, and ending with a suggested CHP system for your operations.

ASI Energy's approach includes:

- Integrated project delivery through Project Management Office
- Guaranteed ROI
- Frequent project reporting and transparency
- Detailed financial analysis
- Financing for your project

While other CHP approaches can be complicated, inefficient and expensive, ASI Energy's integrated project delivery system is a highly efficient and comprehensive CHP solution. This cost-saving system is backed with extensive knowledge and experience in engineering design, construction management, utility regulatory policies and project financing. ASI Energy's team spearheads this multifaceted project while you continue your day-to-day business operations without interruption. Their engineers, financial experts and project managers work together to minimize disruptions typically associated with a major energy project.

For more information, and to find out if CHP is right for your operations, please contact ASI Energy at 607-330-1203 or visit them online at asienergy.com/manufacturing.

Associates' Corner



JOHNSON OUTDOORS GEAR, INC.

625 Conklin Road Binghamton NY 13903 / 607-779-2200 (p) 607-779-2291(f)

Johnson Outdoors Gear, Inc. (JOG) of Binghamton, NY is best known locally as Eureka! Tents. Eureka! Tents is a subsidiary of Johnson Outdoors Inc. (NASDAQ: JOUT). Eureka! Tents is a leading designer, manufacturer and distributor of large commercial event/party tents, military shelters, camping tents, backpacking stoves, furniture and sleeping bags.

Eureka! Tents was started in

1895 by Arthur D. Legg who ran a small custom canvas shop that designed and sewed house and store awnings, Conestoga wagon covers, horse blankets, American flags, and tents.

Eureka! has been making quality tents and seasonal structures for more than 100 years and, for 75 years, ran a successful tent rental business. Eureka! has earned a reputation for quality products and innovative designs in manu-

facturing earning them multiple IFAI Achievement Awards for tent design and excellence in manufacturing.

Keeping up with the growth of their business, Eureka's facilities have grown to over 120,000 square feet of manufacturing space and a 30,000 square foot distribution center including the acquisition of Jetboil Inc. located in Manchester, NH. Jetboil is an industry leader in the design and manufacturing of compact backpacking cooking stoves.

The company is also the exclusive US distributor of Silva® compasses.

For more information visit: www.eurekatents.com, www.silvausa.com, and www.jetboil.com

Around the Southern Tier

Nov 11	Business After Hours - Tompkins County Chamber - 607-273-7080
Nov 12	SBC Network Lunch - The Greater Binghamton Chamber - 607-772-8860
Nov 12	Rock Your Holidays: Marketing Strategy - Corning Area Chamber - 607-936-4686
Nov 18	How Can the Southern Tier Unlock Its Global Trade Potential? - SUNY Binghamton
Nov 18	SBIR Grant Proposals That Win - Southern Tier Startup Alliance
Nov 18	After Hours Mixer - The Watkins Glen Area Chamber - 607-535-4300
Nov 18	Inaugural Global Trade & Investment Forum - Binghamton University
Nov 19	Business After Hours - The Corning Area Chamber - 607-936-4686
Nov 19	Business After Hours - Chanango County Chamber - 607-734-5137
Nov 28	Small Business Open House - Chanango County Chamber - 607-734-5137
Visit http://amt-mep.org/index.php/news-and-events/training-and-events/ for additional events	

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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.