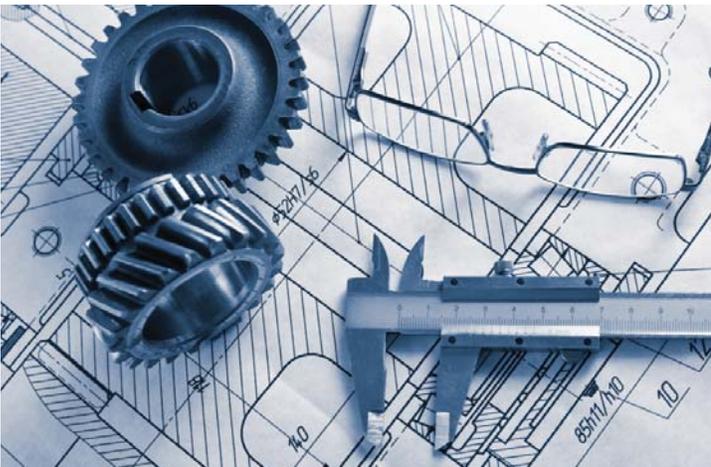


Facts About Manufacturing

- In the most recent data, manufacturers contributed \$2.09 trillion to the economy. This figure has steadily risen since 2009 when manufacturers contributed \$1.73 trillion. The sector accounts for 12.0 percent of GDP. For every \$1.00 spent in manufacturing, another \$1.37 is added to the economy, the highest multiplier effect of any economic sector.



- Manufacturing supports an estimated 17.6 million jobs in the United States—about one in six private-sector jobs. More than 12 million Americans (or 9 percent of the workforce) are employed directly in manufacturing.
- In 2013, the average manufacturing worker in the United States earned \$77,506 annually, including pay and benefits. The average worker in all industries earned \$62,546.
- Manufacturers in the United States are the most productive in the world, far surpassing the worker productivity of any other major manufacturing economy, leading to higher wages and living standards.
- Manufacturers in the United States perform more than three-quarters of all private-sector R&D in the nation, driving more innovation than any other sector.
- Taken alone, manufacturing in the United States would be the ninth-largest economy in the world.

HIGH-QUALITY CAREER OPPORTUNITIES

 <p>STEM jobs are projected to grow by 8.65M by 2018</p>	 <p>Fields like 3D Printing and Robotics are growing</p>	 <p>77K is the annual average salary of manufacturing workers</p>	 <p>90% of manufacturing workers have medical benefits</p>	 <p>Highest tenure in the private sector</p>
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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

Five Leadership Behaviors to Move Up on Your List

By: Mary Jo Asmus

Many leaders drive others harder than they need to. What results is a constant push for their team to achieve those goals. Meetings consist of checking the lists of things to be fixed and get done now.

Recently I listened with awe as leaders described a change of heart following my Coaching for Breakthrough Performance workshop, where we spent significant time on skills that build relationships. Many described their newfound recognition of moving relationship-building with their stakeholders higher on their priority list.

One poignant example came from a retail leader who told how her days are filled with meetings with store managers. Her normal way of operating is to walk into each store and make lists of problems and then spend her time with the managers telling them what they needed to fix. After the workshop, she committed to spending time in the following week just listening to the store managers.

Many leaders need to move these relationship-building behaviors up to the top of their priority list:

Listening: When I ask a leader's stakeholders (especially direct reports) about opportunities for the leader's improvement, I often hear "I don't feel heard" -- even (especially) about well-respected seasoned leaders. Many leaders feel compelled to let people know how much they know. The truth is that relationships are built by listening to others.

Asking: Instead of telling your stakeholders everything you know, the catalyst to helping

them feel heard is inquiry. I know that you're skilled at telling people things, but it doesn't do a lot to help others grow and develop. Becoming skilled at asking curious questions that you and your stakeholders don't know the answers to is a great way for everyone to learn.

Developing: Helping others develop is part of your job. Yes, you still need to get results -- but you'll discover as you mentor, coach, teach and train others, the results will follow. And what follows that is significant satisfaction as they become skilled and you find you don't need you to "push" them to meet goals; they'll know how to get there.

Encouraging: Another common theme I hear when I speak to stakeholders is that the leader's way of operating is to find "what's wrong." Criticism and problem-solving are the default communication tool. What if you looked for the things that people are doing right and encouraged them by letting them know what you noticed instead?

Thanking: Don't wait until the work is completed to say thank you. Find ways to appreciate your stakeholders along the way. A brief email, a handwritten card, or a conversation about what you've noticed will go a long way toward helping others to feel good about what they're doing and repeat it.

I've observed firsthand what's possible when leaders take the time to put a higher priority on relationships. You may believe this is unproductive at first. If you stick with it, you'll notice the commitment, motivation and engagement in your organization that can impact the bottom line.

Helping Small Manufacturers Understand the Lean Message

Small manufacturers (and just about everybody else) have been sold on the idea that lean tools are primarily for cost cutting. So small manufacturers employ lean tools expecting big savings that may not be forthcoming, given that many of them are already practiced at keeping costs as close to the bone as possible.

The value of lean tools for small manufacturers lie, not so much in their cost cutting potential, as in their potential for creating agility. One company has promised several of its largest customers that it will keep a month's worth of the products it needs in the warehouse at all times. In other words, the vendor has promised the customer that it can order a month's worth of any of the products it uses with no lead-time.

If this weren't challenging enough, the customer will sometimes order a full month's worth of several products, then order another month's worth of those same products within a week or two. And if all that weren't challenging enough, the sales office often promises similar service to lesser customers.

If this company implements lean, hoping for "promised" cuts in payroll, improvements in efficiency and reduced costs elsewhere, it's missing the largest strategic use of lean: the ability to meet customer service demands while keeping inventories as low as possible. In fact, it

might actually go the wrong direction if the initiatives the company takes to make it "leaner" actually diminish service. This company needs agility, the ability to meet the sometimes capricious and unreasonable demands of customers each time, all the time.

Focus on Cycle Times and the Customer

What's the small manufacturer to do? Focus on manufacturing cycle times, inventory levels and customer service rather than cost cutting. Focus on improving efficiencies as a path toward operational excellence, not as a move toward labor cost reductions. Understand that smooth, consistent flow of information and material is more important than occasional bursts of speed.

For products that have long lead-times, ask, "If we could reduce the lead-time to the customer for this product, would we realize an advantage over our competitors, even if the cost of making that product stayed the same?" Where lead-times are short because you are keeping product in the warehouse (as in the case above), ask, "Can we maintain or even improve customer service even as we reduce inventories?"

All that said, make sure you know what your inventory buffers are costing you. What could the company above save in inventory if it were to ask the cus-

tomers for one-day lead-time? Two days? The company may or may not decide to make changes to its promises, but it needs to know what the costs of those promises are. (This may seem to contradict my earlier statements, but giving the customer a shorter lead-time than it needs is as wasteful as keeping inventory on hand to meet a short lead-time. The company mentioned earlier sometimes risked providing poor service levels to large customers that very much needed a very short lead time in order to offer equal terms to much smaller, less frequent customers that may have been willing to have a one or two day lead-time.)

Does a focus on agility rather than cost cutting require different "lean tools"? No.

Workplace organization, quick setup, work standardization, pull systems, and error proofing are very much a part of agile manufacturing. If anything, their connection to agility is more intuitive and straightforward than is their connection to cost cutting.

On the other hand, a focus on agility does require a different strategic view on the part of leadership and a great deal of discipline on the part of supervisors and operators. It requires everyone to see lean initiative as a "top line" (better sales) strategy as contrasted to a "bottom line" (lower costs) tactic.

Improve Processes, Grow Sales, Increase Profitability ... It's What We Do.

Awesome Quotes on Vision

1. "If you can dream it, you can do it." - Walt Disney
2. "Whatever you can do or dream you can, begin it. Boldness has genius, and magic and power in it. Begin it now." - Goethe
3. "The greatest danger for most of us is not that our aim is too high and we miss it, but that it is too low and we reach it." - Michelangelo
4. "It's not enough to be busy, so are the ants. The question is, what are we busy about?" - Henry David Thoreau
5. "You don't lead by pointing and telling people some place to go. You lead by going to that place and making a case." - Ken Kesey
6. "If you want to build a ship, don't herd people together to collect wood and don't assign them tasks and work, but rather teach them to long for the endless immensity of the sea." - Antoine de Saint-Exupery
7. "Your vision will become clear only when you look into your heart. Who looks outside, dreams. Who looks inside, awakens." - Carl Jung
8. "The empires of the future are empires of the mind." - Winston Churchill
9. "Vision is the art of seeing things invisible." - Jonathan Swift
10. "Management has a lot to do with answers. Leadership is a function of questions. And the first question for a leader always is: 'Who do we intend to be?' Not 'What are we going to do?' but 'Who do we intend to be?' - Max DePree

The Fly By

By: Lt. Col. Grant L. Rosensteel, Jr. USAF

Luke AFB is west of Phoenix and is rapidly being surrounded by civilization that complains about the noise from the base and its planes, forgetting that it was there long before they were. A certain lieutenant colonel at Luke AFB deserves a big pat on the back. Apparently, an individual who lives somewhere near Luke AFB wrote the local paper complaining about a group of F-16s that disturbed his/her day at the mall. When that individual read the response from a Luke AFB officer, it must have stung quite a bit.

The Complaint

Question of the day for Luke Air Force Base: "Whom do we thank for the morning air show?"

"Last Wednesday, at precisely 9:11 a.m., a tight formation of four F-16 jets made a low pass over Arrowhead Mall, continuing west over Bell Road at approximately 500 feet. Imagine our good fortune! Do the Tom Cruise-wannabes feel we need this wake-up call, or were they trying to impress the cashiers at Mervyn's early bird special? Any response would be appreciated."

The Response

Regarding "A wake-up call from Luke's jets" (Letter, Thursday):

On June 15, at precisely 9:12 a.m., a perfectly timed four-ship flyby of F-16s from the 63rd Fighter Squadron at

Luke Air Force Base flew over the grave of Capt. Jeremy Fresques. Capt. Fresques was an Air Force officer who was previously stationed at Luke Air Force Base and was killed in Iraq on May 30, Memorial Day, at 9 a.m.

On June 15, his family and friends gathered at Sunland Memorial Park in Sun City to mourn the loss of a husband, son and friend. Based on the letter writer's recount of the flyby, and because of the jet noise, I'm sure you didn't hear the 21-gun salute, the playing of taps, or my words to the widow and parents of Capt. Fresques as I gave them their son's flag on behalf of the President of the United States and all those veterans and servicemen and women who understand the sacrifices they have endured.

A four-ship flyby is a display of respect the Air Force pays to those who give their lives in defense of freedom. We are professional aviators and take our jobs seriously, and on June 15 what the letter writer witnessed was four officers lining up to pay their ultimate respects.

The letter writer asks, 'Whom do we thank for the morning air show?' The 56th Fighter Wing will make the call for you, and forward your thanks to the widow and parents of Capt. Fresques, and thank them for you, for it was in their honor that my pilots flew the most honorable formation of their lives.

ISO Certification, Strategy and Growth

It would be a mistake for any manufacturer to think, "If I get certified to this standard, great things will suddenly happen for my business." Certifications are not magic bullets. But when tied to your strategy, pursuing certain quality standards can help you make your company better at what it does, forge it into a more attractive business partner, and help it reach its overall strategic goals.

To know which ISO/AS Certifications your business can benefit from, first identify where and how you want to participate in your chosen marketplaces. For success, it's critical to tie everything to the overall business strategy. It's important to be purposeful, and to understand what a new certification can – and can't – do for your business.

Where Certifications Count Most

ISO certification isn't necessary in every case. Generally, the closer you are to producing a finished product in the supply chain, the greater the need for quality certifications. In the robust medical device manufacturing industry, for example, you'll eventually need ISO 13485 certification to become a big player. But that certification is not strictly required to participate in the medical device manufacturing space. It depends on your end goals, and your present level of business.

Smaller manufacturers, that are part of a larger supply chain, may find that certifications aren't necessary for their success. They can often experiment and attempt to get into new supply chains without any certifications. However, if pursuing

the right certifications would make it easier for a larger manufacturer to select your company, now you have a bona fide motivation for certification. Consider your existing and potential customer base. Is a certain certification required, or would it ease the decision making process of those higher up in your supply chain? Would it make it simpler for them to say yes to your offerings? Do your competitors have certifications you don't?



Help in Achieving ISO/AS Certification

AM&T brings a wealth of experience to the quality certification process, and can give you an objective third-party view of whether you should pursue certification. When you're closely invested in your company, it can be hard to "see the forest for the trees." We have an objective understanding of the standards, as well as the ability to interpret what they truly mean and apply them successfully to an individual business. We understand what the registrars look for when auditing a company to determine if it's compliant, because we've worked with the registrars for years. Since our consultants are also registrar auditors, their experience can help you avoid many of the pitfalls on the road

to certification.

For example, we've seen many businesses tend to make the certification process too complicated when pursuing a standard on their own. AM&T helps simplify and direct the certification process. We evaluate current quality management systems objectively, and compare them to the standard being pursued. We identify any gaps, develop a road map to close those gaps, and then we work with the client to implement the road map. We can take as active a role as needed, from helping write documentation and procedures to giving general guidance and mentoring a company through the process.

Considerations to address before pursuing ISO/AS Certifications:

- Certification is not an end in and of itself. It should be a part of what you do, and should complement the other components of your overall business strategy.
- Standards should be used to improve your business processes. Certification should be seen as an opportunity to identify process improvements that can create improved business results overall.
- Certification may not get you more customers or improve your business on its own. You'll need a strategic business plan and an active marketing plan to maximize the benefits of that new certification.

Call Jim Cunningham at 607-725-1225 if you need help with your quality management system.



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.
- 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



Applied Technology Manufacturing Corporation (ATM).

ATM was founded in 1927 as Moore & Steele Corporation, which designed and manufactured railroad track appliances such as rail anchors, rail oilers and rail lubricators. In 1995 the company name was changed to reflect a broadening of the business into component manufacturing for other companies.

Production machinery has evolved from manual to CNC, and the people have evolved as well, having become as proficient with computers as they are with the machinery and the principles of machining.

The current management at ATM has decades of experience in machining and manufacturing, as well as engineering and product development. They are experienced in procuring everything from raw materials, castings, forgings, specialized fabricating, heat treatment, and plating. Over the years they have assembled an excellent team of production and support staff. They handle all tool making, fixture design and fabrication, as well as machine maintenance, repair and rebuilding, in house. They're very proud of the people and the work they do.

The 20,000 square foot facility is located in Owego, NY, on NYS Route 17 (I-86), with access to all major trucking carriers, as well as their own truck for close range delivery and or pick up of parts. All manufacturing and business accounting is handled on an IBM e-server, running Infor's state of the art VISUAL Enterprise ERP Software, built around Infor's patented production scheduling system. This software enables ATM to make the most efficient use possible of both machinery and human resources. The Engineering Department uses the latest version of Autocad Inventor, Mechanical Desktop, 3-D solid modeling, as well as Mastercam. Drawings can be easily exchanged electronically.

Response to requests for quotation are in 48 hours or less (where no special raw materials are required). Once awarded your business, everything possible will be done to ensure customer satisfaction, with competitive pricing, on time delivery, and high quality product.

For more information, visit: www.appliedtechmfg.com

Associates' Corner



Audiosears is the premier manufacturer and supplier of handsets, headsets, and components for the telecommunications industry, including handsets, cradles, handheld microphones, acoustic elements and a variety of components including cordsets, switches and custom circuitry.

Their extensive knowledge and experience in the industry allow them to provide innovative solutions that meet the changing needs of their customers. By consistently delivering high

quality products supported by outstanding customer service, they have earned the respect and loyalty of their customers.

In-house capabilities at Audiosears include engineering, machining, custom fabrication, and electronic/mechanical assembly. Strong relationships with industry partners enable them to offer turn-key solutions for their customers.

For over fifty years Audiosears has gained increasing recognition and acceptance as a leading domestic manufacturer of high

quality telecommunications.

Located in the small village of Stamford, NY in the northern foothills of the Catskill Mountains, Audiosears currently employs a staff of 62. The plant is certified to the ISO 2001:2008 Standards and is in the process of implementing lean manufacturing processes throughout the facility.

For more information, visit: www.audiosears.com or contact Shawn Hartwell at 607-652-7305 or 1-800-533-7863

Around the Southern Tier

Sep 10	Business After Hours - The Chemung County Chamber - 607-734-5137
Sep 15	Retirement Ready Workshop - The Chemung County Chamber - 607-734-5137
Sep 16	After Hours Mixer - The Watkins Glen Area Chamber - 607-535-4300
Sep 16	Southern Tier Startup Alliance Entrepreneur - The Watkins Glen Area Chamber - 607-535-4300
Sep 17	Greater Binghamton Business Expo - The Greater Binghamton Chamber - 607-772-8860
Sep 17	Networking at Noon - The Tompkins County Chamber - 607-273-7080
Sep 22	Retirement Income Planning Workshop - The Chemung County Chamber - 607-734-5137
Sep 24	Business After Hours - The Chemung County Chamber - 607-734-5137
Sep 24	Business After Hours - The Corning Area Chamber - 607-936-4686
Sep 30	Chamber Business Academy - The Watkins Glen Area Chamber - 607-535-4300
Oct 08	Annual Chamber Business Show - The Tioga County Chamber - 607-687-2020

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.