

# AM&T

Alliance for Manufacturing & Technology

www.amt-mep.org

## HELPING MANUFACTURERS PLAN, PERFORM, PROFIT & GROW

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## C&D Assembly Celebrates ISO Certification

Quality control is essential to the success of an electronics manufacturing company, and C&D Assembly in Groton is no exception. Owners knew that the foundation for their two decades of growth was quality and customer satisfaction, but they wanted to deepen and expand that foundation throughout the company, and they needed a way to easily provide evidence of their achievement to prospective customers.

They won that evidence recently, receiving notice that an independent auditing firm had certified the company as meeting the requirements of ISO 9001:2008, an international standard that enables companies to ensure that their products and services reliably meet customers' requirements, and that quality is consistently improved.

C&D is an electronics contract manufacturer specializing in rapid-prototype, low-mid volume print-

ed circuit board assembly, product test, and mechanical/box-build requirements. The 30-employee team serves various markets, primarily industrial sensors and instrumentation, fiber-optic telecom, POS printers, bio-science, controls for HVAC, lighting, refrigeration, and coin-bill-card systems.

Several key people at C&D met with Michael Meador from AM&T to explain why obtaining ISO certification was a priority for the company. Participating in the discussion were the three owners -- Jeff Cronk, Mike Hammond, and Candi Dann -- who all work full time at the company, plus ISO Manager Maria McGuinness, Production Manager John Wolff, and Materials Manager Leslie Soos.

**AM&T** - What prompted your interest in becoming ISO certified?

**Jeff** - Mike and I became aware of ISO while working at previous jobs,

so when we started C&D, we looked at quality manual templates from other companies to get a general idea of what might be useful to us. We created our own manual and used parts of it on an ongoing basis to guide our production operations. This gave us a basic structure for handling certain kinds of problems or suggestions, but our approach to quality didn't cover all areas of the business.

Ten years ago, we brought in Bob Mann from AM&T to help us upgrade our quality manual and procedures. While that helped improve our operations, we just didn't commit to getting officially certified. Later, we asked Lloyd Johnson from AM&T to do a gap analysis that looked at how our business had evolved and identified what we needed to do to become ISO certified. We said to ourselves, "we're committed to having top quality,

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## 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

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MEP • MANUFACTURING EXTENSION PARTNERSHIP



Empire State Development, Division of Science, Technology & Innovation

# C&D Achieves ISO 9001:2008

We've been using it, we know the value of it, so let's make it official."

**AM&T** - So tell me a little about your experience once you started down that path -- after you and Lloyd explained to all the employees what would be happening.

**Maria** - We had a few people who were maybe skeptical at first, but when we got them engaged and they started thinking more about the detail of how their jobs interacted with others, they came up with some good ideas.

**Jeff** - Lloyd's approach kept people from feeling overwhelmed. In playing the role of an ISO auditor, he stayed with the easy stuff until we got it, then he gradually changed to asking harder questions from different perspectives, until we all got up to speed.

**Candi** - Even though everyone knows their job well, human nature causes individuals to stumble when quizzed about it. All the practice Lloyd gave us made it easy for everyone to explain things in their own terms when the ISO auditor showed up. Creating that comfort level was very important.

**Mike** - Right. Understanding the concept of continuous improvement made people aware that they can actively participate in change and improvement instead of just following the existing practice.

**AM&T** - It appears that C&D was already in reasonably good shape with your customer focus and having the foundation of a quality system in place. What additional value was added by going through the training and audit process to get ISO certification?

**Leslie** - We're a small company with a good group of core peo-

ple who are very proud of what they do. They are all perfectionists, which is a good thing. However, it means that one obstacle to maintaining consistent quality is getting all of us to agree on a single right way of doing something, and then doing it. Now we have the procedures in place to consistently make that happen.



Rhonda Hughes, a Certified IPC Specialist, performs a hand soldering operation.

**Candi** - With our past focus on customers and employees, we often didn't communicate enough as a management team. This process has helped us realize the importance of more frequent management meetings and the value the company gets from those. Individually, if one of us is struggling with something or has a great idea, we have a better way to present these topics to our entire team.

**Maria** - Right, the agenda for these meetings have enabled us to make sure that we discuss important issues, set goals, and be accountable.

**John** - I started working at C&D just three weeks before the scheduled certification audit

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# Quality Management System Strengthens Team

and I was impressed at how well-prepared everyone was -- and anxious to get it done. The fact that our company already had a strong customer focus gave us a leg up on this process. Businesses that see themselves as being most important have a harder time.

**AM&T** - Now that you've achieved certification, what's your sense of how the other employees view your enhanced quality system?

**Maria** - This process got all employees to understand the importance and value of implementing a complete quality system -- how it will wind up making their jobs easier and improve their job security by making the company stronger. They see owner and manager buy-in, which is crucial, and they know Lloyd will be back every three months to do an internal audit to keep us on track. We've also incorporated ISO training into our new hire orientation and training process to educate new employees to our Quality Management System, their role as it relates to ISO/QMS, and the company's expectations.

**AM&T** - Can you be more specific about what you see as valuable? In other words, what are the tangible benefits to the company?

**Jeff** - Our motto has always been, "Do whatever it takes." With a standardized quality management system in place, our focus on complete customer satisfaction has evolved into an organized method of achieving that. From my perspective, the biggest bottom line impact is having a structured way to collect and review data about customer perceptions. As a result of our certification process, not only do I know our level of customer satisfaction, but so does our entire team. Customer feedback is encouraged, reviewed and has become a catalyst for improved employee morale and dedication. It's a Win-Win situation.

**Mike** - Having that feedback and the resulting corrective actions organized and accessible is very valuable. ISO has taught us how to close



Desirae Vorhis programs and operates the automated Selective Soldering Machine.

loops. If we open a corrective action, it's monitored and assigned to an individual -- it doesn't just disappear somewhere. The system insures that we address the concern, resolve it, and evaluate its effectiveness.

**Candi** - I like the fact that with these procedures and systems in place, owners can rest easier. We reduce our levels of stress by providing assurance that things are operating as intended, in a structured and consistent manner. It gives us additional pride in our company.

**Jeff** - The sales process is also easier -- some potential customers won't look at you unless you're certified. I can list customers who were ready to give us jobs but waiting until we were ISO certified -- now they can proceed.

**AM&T** - What advice do you have for companies that are considering becoming ISO certified?

**Candi** - The most important elements are management buy-in, along with an understanding of the amount of work that will be required.

**Mike** - Be realistic about the time

frame, suppress your ego, and recognize that we all can improve.

**John** - Motivation is important. If your goal is just to get the ISO stamp of approval and you aren't interested in making improvements to the way you work, then you're in for a tough battle.

**Jeff** - Realize that it's hard to do all the preparation for an ISO audit while you're doing your regular job. But when it's finished, the quality system becomes part of your regular job, making that job better.

**AM&T** - Any other parting thoughts?

**Jeff** - I suppose we could have done it without AM&T, but it would have been much harder. The value from AM&T was great because not only do you get the education, but you also have the added benefit of the consultant working on-site, on the production floor and throughout the company.

**Maria** - In particular, Lloyd was always very responsive, whether we needed information or just counseling. He helped us through some frustrating moments.

For more information about C&D visit [www.cdassembly.com](http://www.cdassembly.com).

## 5 Ways to Make Lean Initiatives Successful

1. It's not an "add water and stir" initiative. You can't just decide one day to become lean and think it will happen overnight. You need to determine what constraints are impeding your ability to increase speed, improve quality, and eliminate non-value-added activities. And, finally they need to be included in the company's Strategic Plan as a "Critical Success Factor" including relevant strategic objectives.
2. Everyone must participate and understand. Unless all employees participating in the lean initiative are convinced that their commitment and efforts are important to its success, improvements will not meet expectations.
3. Prepare well. Even with the best plan, successful implementation will be evasive if there is not a genuine commitment to employee training, multi-functional, self-directed work team development and empowerment.
4. Establish goals and expectations, track daily/weekly progress and carry out corrective actions if and when required. Determining motivational performance metrics and establishing Key Performance Indicators (KPI) to track performance is paramount to achieving positive, sustainable lean initiative results.
5. Be a leader and a champion. Successful, lean manufacturing implementation requires Lean Manufacturing Champions.

# Accountability

By Neil Kane

I was fortunate early in my career to get some valuable, but simple advice. I don't remember where it came from – probably from some motivational speaker or maybe the Dale Carnegie Course, since I spent my first few years out of college immersed in personal development. The advice is embodied in ten words, 20 letters:

**"If it is to be, it is up to me."**

This simple phrase taught me the importance of accountability. In college, it's every man for him/herself. You get graded on a curve, and you are actually discouraged from helping fellow students since, if they do better on their tests, you do worse in comparison. I got my comeuppance when I took this "every man for himself" attitude with me to my first job as a robotics engineer at IBM in Silicon Valley. It wasn't long before I was getting counseled about the importance of teamwork in the real world and the need to lose the attitude that I developed in college. It was around this time that I discovered the phrase above.

I learned that it was part of my job description to help others. It was expected of me that:

- My team accomplished its goals.
- If I had something to offer other people in terms of experience or expertise, I needed to go out of my way to help them.
- I could never place blame or make excuses for my failure to meet my commitments.

The corollary to this is that if someone tells me that they didn't understand me, it means that I didn't communicate properly, not that they have a comprehension problem. The responsibility for communicating my thoughts/ideas/directions lies with me, not with them.

Being accountable doesn't mean that you have to carry the weight of the world on your shoulders, but it does mean that you have to own the responsibility for your results and those of your team. During my career, as I've gone from being an employee to a manager to a leader, I never forget this dictum. As a leader, I own the responsibility for my team's success.

Lessons learned:

- If someone doesn't understand me, I don't blame them. I look in the mirror.
- As a leader, I am accountable for my team's success.

# 6 Strategies for Transforming Ideas Into Results

By Marty Zwilling

Successful startups are all about turning ideas into action quickly and efficiently. These actions must be the hard part, since entrepreneurs always seem to come to me with ideas, and ask me for help on the actions. That has always seemed strange to me, since the magic is supposed to be in the ideas, and the actions are the same for every business.

In fact, the actions required to start and run a business are well documented, the subject of many books, and taught in college courses across the land. As confirmed to me by John Spence in his book on this subject, *Awesomely Simple*, turning business ideas into action consists of six essential strategies:

- 1. Build a vivid vision.** Having a clear, vivid, and compelling vision in your head is without question an essential component in building a successful company. But that's not good enough. The vision has to be documented and communicated in a way that makes it vivid to every member of your team, your customers, and your investors.
- 2. Team with the best people.** The best people are highly talented and motivated individuals who are also masters of collaboration. The future of your startup is directly tied to the quality of talent you can attract and keep. You must create a winning culture that people love.
- 3. Practice robust communication.** Open, honest, frank, and courageous communication, both inside and outside the organization, is critical. The key skills can be learned, and include deep listening, logic versus emotion, and reading body language. According to Spence, this is the biggest problem he has to deal with in client organizations worldwide.
- 4. Cultivate a sense of urgency.** Get things done. A fast, agile, adaptable organization makes the important things happen now. Urgency is allergic to bureaucracy. Reward fast action. You set the model for your startup. You become what you focus on and become like the people you spend time with.
- 5. Enforce disciplined execution.** Build a performance-oriented culture that demands quality in every operation, encourages continuous innovation, and refuses to tolerate mediocrity. Most organizations execute only 10 to 15 percent of their major goals. Do a periodic effectiveness audit to check your operation. Then fix it.
- 6. Show extreme customer focus.** Put feedback mechanisms in place to know that you are consistently delivering what customers truly value. Attitude and listening are the keys. Superior customer focus can drive as much as an 85 to 104 percent increase in your profitability.

It should be pretty easy to see the interdependence and synergy among the six principles, each building on the next, all the various elements working together to create a highly successful business. But you don't have to go out and address all six principles right now. Pick one that will create leverage immediately, and begin with it.

Spence defines three simple watchwords that will lead to business excellence – focus, discipline, and action. If you are missing any of these, the outcome will most certainly be mediocre. Once you start accepting mediocrity, you become a magnet for mediocrity.

Your great ideas deserve more than mediocre actions. Simple actions done in an outstanding fashion are far more effective than complex and time consuming actions done poorly (thrashing). Also, don't be fooled into thinking that "simple" means "easy to implement". Start now to turn your innovative ideas into action. Every entrepreneur loves a challenge.

*"Imagination is more important than knowledge. For knowledge is limited to all we now know and understand, while imagination embraces the entire world, and all there ever will be to know and understand." - Albert Einstein*



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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

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

More information at [www.amt-mep.org](http://www.amt-mep.org)

## Associates' Corner



Hardinge is a global designer, manufacturer and distributor of machine tools, specializing in SUPER PRECISION(TM) and precision CNC lathes, high performance Machining Centers, high-end cylindrical and jig Grinding Machines, and technologically advanced Workholding & Rotary Products.

Hardinge's products are distributed to most of the industrialized markets around the world with approximately 70% of the 2009 sales outside of North America. Hardinge has a very diverse international customer base and serves a wide variety of end-user markets. This customer base includes metalworking manufacturers which make parts for a variety of industries, as

well as a wide range of end users in the aerospace, agricultural, transportation, basic consumer goods, communications and electronics, construction, defense, energy, pharmaceutical and medical equipment, and recreation industries, among others.

Hardinge has manufacturing operations in the United States, Switzerland, Taiwan, and China.

Hardinge utilizes the Lean Principles in Manufacturing, Six Sigma and Total Quality Management for continuous improvement activities throughout its operations. Hardinge is ISO 9001 certified, a former Baldrige finalist and one of the Top 50 Companies in America.

For more information visit [www.hardinge.com](http://www.hardinge.com).



**What:** The 2013 Albany Matchmaker & Expo is an opportunity for small businesses to meet face-to-face with buying representatives from prime corporations and federal, state and local agencies from throughout the Northeast.

**When:** Wed., June 19, 2013 8:00 am - 4:00 pm

**Where:** The Albany Marriott, 189 Wolf Rd, Albany, NY

**Cost:** \$45 per person, maximum 2 attendees per small business

Register at [www.sba.gov/albanymatchmaker](http://www.sba.gov/albanymatchmaker)

## Associates' Corner



In 1990 Toolroom Express merged with Four Square. Toolroom Express was founded in 1989 as a mold shop focused on quick-turnaround production molds and shortrun injection molding. During the time since the merger Four Square has grown into a full service production injection molding company.

Toolroom Express is a name for a new rapid injection molding service. An extensive amount of time was spent developing the technical and service sides of Toolroom Express. In late 2004

Toolroom Express began offering its rapid injection molding services to customers. If your products use injection molded parts, Four Square can provide expert solutions, from design to delivery. They specialize in precision injection molding and related assembly services.

Rapid Injection Molding utilizing conventional machining and molding processes to produce your part, value-engineered processes and applied innovative methods make Four Square both time and cost efficient. This, along with their extensive experience with injection molding, allows Four Square to produce

your injection molded part to your design, using the material you specify, in a time that keeps your project on track.

Concurrent engineering services are offered in:

- Moldflow Analysis
- Design For Moldability Review
- Material Selection

Four Square's goal is to provide you with the design support to make your development project a success.

For more information call 607-723-5373, Fax 607-723-3673 or visit [www.foursquaretool.com](http://www.foursquaretool.com).

## Around the Southern Tier

Jun 10	The 7th Sense - Tompkins County Chamber - 607-273-7080
Jun 13	Succession Planning - SCORE Binghamton - <a href="http://greaterbinghamtonscore.org">greaterbinghamtonscore.org</a>
Jun 19	Opening Doors to Government Contracting - SBDC - See Page 6
Jun 19	After Hours Mixer - Watkins Glen Area Chamber - 607-535-4300
Jun 20	R.H. Sheppard Tour - AME - <a href="http://www.ame.org/events/rh-sheppard-tour-a3-workshop">http://www.ame.org/events/rh-sheppard-tour-a3-workshop</a>
Jun 27	Business After Business - Chemung County Chamber - 607-734-5137
Jul 11	Operational Excellence in a Job Shop - AME - <a href="http://www.ame.org/events/operational-excellence-job-shop-environment-1">http://www.ame.org/events/operational-excellence-job-shop-environment-1</a>
Jul 17	After Hours Mixer - Watkins Glen Area Chamber - 607-535-4300
Jul 18	Business After Business - Chemung County Chamber - 607-734-5137
Aug 01	Business After Business - Chemung County Chamber - 607-734-5137
Aug 07	Small Business Training Part 1 - SBDC Binghamton - 607-777-4024
Aug 14	Small Business Training Part 2 - SBDC Binghamton - 607-777-4024
Aug 15	Business After Hours - Corning Area Chamber - 607-936-4686

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## AM&T DIRECTORY

[www.amt-mep.org](http://www.amt-mep.org)

Tel: 607-774-0022  
Fax: 607-774-0026

### Jim Cunningham x311

Business Developer /  
Principal Consultant  
[jcunningham@amt-mep.org](mailto:jcunningham@amt-mep.org)  
mobile: 607-725-1225

### Robert F. Edwards x307

I.T. Administrator /  
Webmaster  
[redwards@amt-mep.org](mailto:redwards@amt-mep.org)

### Ed Gaetano x304

Executive Director  
[egaetano@amt-mep.org](mailto:egaetano@amt-mep.org)  
mobile: 607-760-3864

### Lloyd Johnson x312

Principal Consultant  
[ljohnson@amt-mep.org](mailto:ljohnson@amt-mep.org)  
mobile: 607-227-6229

### Bob Mann x305

Principal Consultant  
[rmann@amt-mep.org](mailto:rmann@amt-mep.org)  
mobile: 607-725-8226

### Michael Meador x314

Principal Consultant  
[mmeador@amt-mep.org](mailto:mmeador@amt-mep.org)  
mobile: 607-342-3208

### Carol Miller x316

Principal Consultant  
[cmiller@amt-mep.org](mailto:cmiller@amt-mep.org)  
mobile: 607-237-8031

### Kathy M. Peacock x308

Finance Administrator /  
Notary Public  
[kpeacock@amt-mep.org](mailto:kpeacock@amt-mep.org)

## 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 2005-2012 reported impacts of:

- 3,005 jobs created or retained
- \$634 million in increased or retained sales
- \$15.5 million in cost savings
- \$41 million in investments
- \$818 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.**