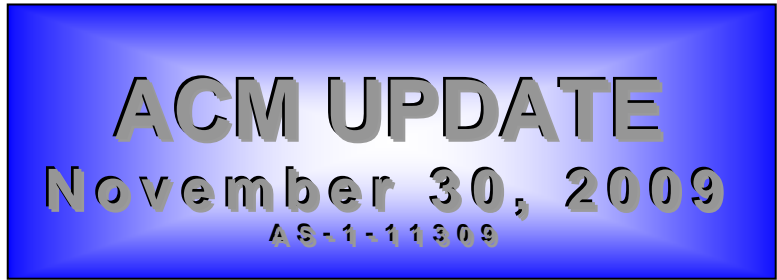




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www.aerospacecomponents.org

E-mail: alsamuel@acm-ct.org

The ACM Update & Calendar (and previous issues) are also available for viewing on the ACM website.

Workforce Development

- The WorkForce Development Team met at CBS Mfg (East Granby) on November 19th.

This meeting reviewed the recent activities of Team members in establishing relationships with local schools to make the students, teachers and parents aware of the career potential in the aerospace industry. During the past month, this effort has started to take root as members attended open houses, made presentations to students and teachers and invited student groups into their facilities. And special thanks to CBIA's Dayl Walker and Mary deManbey who set up and coordinated many of these visits.

Feedback on these presentations from teachers, parents and our 'presenters' has been unanimous in terms of a really positive experience. Please see the letter (right) by Stowe's Judy Boyle following her visit to Eli Whitney Tech. And following Paul Murphy's presentation at Howell Cheney High School, Dayl Walker writes, *"the students were incredibly well behaved - not the usual squirrely ninth graders- - and Paul again did an excellent job. The ACM presentation really speaks to the students."*

Business Development Team members, at their October meeting, signed up to make presentations and serve as hosts for school visits to their plants – these members will be called on shortly, yet we need many more of our members to step up and participate.

The presentation developed earlier this year by the WorkForce Development Team, "A Career

STOWE MACHINE



Stowe Machine Co., Inc.
45 Hayden Station Road
Windsor, CT 06095
Tel 860 688 9688
Fax 860 688 8626
www.stowemachine.com

November 19, 2009

Mr. Thomas Kenyon
Manufacturing Technologies
Eli Whitney C.T.H.S.S.
Hamden, CT 06514

Dear Tom and Students:

On behalf of the ACM (Aerospace Components Manufacturing) Workforce Development committee, I again wish to thank you and your students for having me as a guest speaker on Wednesday, November 19th. It was a pleasure to introduce you to the opportunities available in aerospace manufacturing.

As mentioned during my visit, ACM's Workforce Development committee developed the presentation so that we could introduce students to our industry as well as the many opportunities and benefits. We hope that our presentation was informative, but of course would welcome suggestions that would make it even better. For more information we invite you and the students to visit ACM's website at <http://www.aerospacecomponents.org>.

The students, upon entering the shop area, immediately made me feel welcome. They stood tall and approached me with wide, welcoming smiles. (They were the BEST!!)

As a Human Resource Manager, I was impressed with how neatly everyone appeared and appreciated their politeness, questions and sincere interest.

Please let me know if there is an event that parents attend where you would allow us to participate.

Again, I thank you and your students for the wonderful visit.

Sincerely,

Judith L. Boyle
Human Resource Manager & ACM Member

in AerospaceLimitless!”, is available to view on the ACM website by going to menu item, “Learn About Career Opportunities” (<http://www.aerospacecomponents.org/page1167.html>). To download, login to ‘Members Only’ and next, the File Library ‘WorkForce Development’ folder; two customizable Powerpoint versions (one contains additional talking points) and a .pdf version are available.

Want to make a presentation, but not sure about your approach?? CBS’ Cliff Lawton has offered to provide informal training in the delivery of our presentation; the first “training” session will be held on Tuesday, December 1st at 8:00am at CBS Mfg, East Granby, CT. Please RSVP your plan to attend to Cliff Lawton at clawton@cbsmfg.com.

The following is a summary of our completed and planned actions:

School	Location	Event	Date	ACM Participants	
				Name	Company
Windsor High School	Windsor	Business Partnership Mtg	9/25/09	Judy Boyle	Stowe
Windsor High School	Windsor	Business Partnership Mtg	9/25/09	Gary Zweifel	Delta Industries
A.I. Prince Technical High School	Hartford	Open House	11/5/09	Tom Ferreira, Carmen Duprey, Maria Goyzueta	C&P Machine
A.I. Prince Technical High School	Hartford	Open House	11/5/09	Jim Bowtruczzyk + 2 additional	Horst Engr.
A.I. Prince Technical High School	Hartford	Open House	11/5/09	Steve Drewes, Alan Roy, Mark Foisey	Whitcraft
E.C. Goodwin Technical High School	New Britain	ACM Presentation	11/20/09	Paul Murphy	
E.C. Goodwin Technical High School	New Britain	ACM Presentation	11/30/09	Paul Murphy	
E.C. Goodwin Technical High School	New Britain	ACM Presentation - Parent's Open House	12/9/09	Paul Murphy	
Eli Whitney Technical High School	Hamden	ACM Presentation	11/18/09	Judy Boyle	Stowe
Eli Whitney Technical High School	Hamden	ACM Presentation	11/24/09	Jeff Paul	Whitcraft
Eli Whitney Technical High School	Hamden	ACM Presentation	12/3/09	Kristin Muschett	Habco
Howell Cheney Technical High School	Manchester	Students (Welders) visit Facility	11/18/09	Gary Zweifel	Delta Industries
Howell Cheney Technical High School	Manchester	Students (Machinists) visit Facility	12/3/09	Gary Zweifel	Delta Industries
Southwick-Tolland Regional High School	Southwick, MA	ACM Presentations - 2	12/4/09	Judy Boyle	Stowe

Bob Torrani and Susan Palisano also attended this Team meeting to brief CCAT’s education initiatives. Susan described the “*Young Manufacturers Summer Academy*” which brought over one hundred 7th, 8th and 9th grade students together in an eight day program intended to introduce the modern manufacturing workplace and promote the educational path and personal skills needed to support their future manufacturing careers. This program is planned to run again during the coming summer with a larger group of students. A recent grant obtained by CCAT called “ADVANCE” was introduced to the Team. This grant, still in formulation, will provide local firms with reimbursement for various training programs and will be administered by CCAT in a similar fashion to the ADI funding that supports Progressive Manufacturing training. ACM will provide its members with additional detail regarding this grant as detailed information becomes available.

- ACM’s training courses have taken a significant slowdown during the past three months, likely the result of the economic downturn. However, this is an excellent time to put your company and its employees in the best position for recovery. Our model is to conduct the course weekly, at 3:00pm, for two-hour sessions and share the expense among attending students. ACM can provide courses conducted at member facilities in such subjects as Shop Math, BluePrint Reading, Geometric Dimensioning & Tolerancing, First Line Supervisor’s Training, etc. for little cost. Members need do no administrative work other than registering their employees in response to the ACM email notice for a specific course.

Please contact the ACM Office to advise of your need for specific training or to volunteer to host a course. The entire syllabus is available on the ACM website Members Only Library in the WorkForce Development folder

- REMINDER -- ACM has incorporated a Job Posting page on its website and is providing this as a service to member firms at NO cost. Jobseekers visiting the ACM home page will see listed on its menu, “**Job Listings**”, which will display available positions by company as well as by job type (see today’s listings on next page). Applicants clicking on a listing will open a page showing the individual job description as well as a link to direct the applicant to the member’s website.

Click a Job Title to View the Complete Description

AdChem Manufacturing Technologies, Inc.

Quality Assurance

[- Inspector](#)

Delta Industries

Engineering

[- CNC Programmer](#)

[- Manufacturing Engineer](#)

Manufacturing

[- Aerospace Welder](#)

[- Machining Supervisor](#)

[- Welding & Fabrication Supervisor](#)

KTI, Inc.

Engineering

[- Sales / Estimating Engineer](#)

Pegasus Manufacturing Inc.

Manufacturing

[- Inspector](#)

Sales / Marketing

[- Sales Engineer](#)

SPX Precision Components

Engineering

[- Design Engineering Manager](#)

Click a Job Title to View the Complete Description

Engineering

[- CNC Programmer](#)

[- Design Engineering Manager](#)

[- Manufacturing Engineer](#)

[- Sales / Estimating Engineer](#)

Manufacturing

[- Aerospace Welder](#)

[- Inspector](#)

[- Machining Supervisor](#)

[- Welding & Fabrication Supervisor](#)

Quality Assurance

[- Inspector](#)

Sales / Marketing

[- Sales Engineer](#)

Job postings for this website are created from information provided by members using the ACM Job Posting template. This template and information on how to submit a Job Posting is available by contacting the ACM Office.

Recognizing the high cost of advertising, we hope this service provides added benefit and cost savings to your ACM membership.

- The next meeting of the WorkForce Development Team will take place on Tuesday, December 22nd at 8:00am at Aero Gear, Windsor. Please plan to become an active participant and attend this Team's meeting.

Business Development

- The Business Development Team will meet on Tuesday, December 8th at 8:15am at CERC, Rocky Hill, CT. Please plan to attend this meeting.

Progressive Manufacturing

- The Progressive Manufacturing Team met at Lean Value Solutions International (LVSI), East Windsor, CT where Steve Crane, LVSI partner presented a mini-seminar on operational excellence entitled, "A Lean Enterprise is Driven by Operational Excellence".

Steve began by indicating the four key elements to Operational Excellence were Ownership, Accountability, Execution and Sustainment. He advised "without change there can be no breakthrough; without breakthrough there can be no future. Change can be crisis or opportunity; the critical difference is whether you are prepared to deal with it!". Steve presented, in this relatively brief timeframe of the Team meeting, an overview of principles of Lean and the Lean Management System, the need to establish a formalized program of improvement and measurements of success. Throughout the discussion, Steve emphasized the importance of leadership in achieving operational excellence, with Vision, Skills (are people properly trained), Incentive (must be provided by leader to effect change), Resources (having the proper people, equipment, time, money and systems) and Direction being the key components for such leadership.

Operational Excellence is about *Driving Improvements & Maintaining a Competitive Edge...* to be accomplished by an integrated **TEAM**, using methodologies & tools, focused on improving your **Products, Processes, and People**.

SO DO YOU HAVE A...???

System consisting of:

- A Structured Formalized Program (lean mindset/culture)
 - with a continuous improvement office (with a plan)
 - a focus on the customer (external/internal)
 - progressive phases driven towards the Vision, Mission, Goals & Objectives of the business
 - extended to the *Value Chain*
 - a measurement process that is linked to the Strategic Plan that can be monitored and updated real time

The Lean Management System

A Lean management system sustains and extends the gains from implementing a lean enterprise.

Leadership must partner with employees and support a mindset and culture driven towards making **lean** "a way of life".

"sum of peoples habits related to how they get their work done..."

- The practices and tools used to monitor, measure, and sustain the operation of a Lean Enterprise.
- Lean management practices identify where actual performance fails to meet expected performance; assigns and follows up improvement activities to bring actual in line with expected or to raise the level of expected performance.
- The basic components of the lean management system are, standard work for leaders, visual controls, and a daily accountability process.

Lean Thinking Five Simple Principles

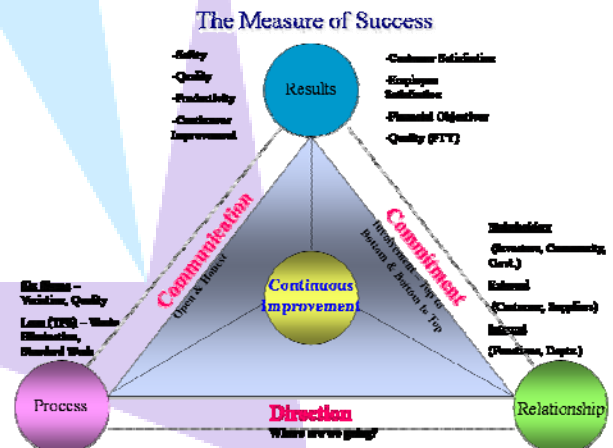
Specify **value** from the standpoint of end customer

Identify the **value stream** for each product family

Make the product **flow**

So the customer can **pay**

As you manage toward **perfection**



Impediments to the "Flow" of Value



The slides presented by Steve Crain are available for viewing or download from the ACM website library; login to Members Only, Progressive Manufacturing and see [Enterprise Excellence - LVSI Present to Lean Team 11-17-09.pdf](#).

- The next Progressive Manufacturing Team meeting will take place on Tuesday, December 15th at 8:00m at Trumpf, Inc. (Building 3 – Customer Service & Technology Center) in Farmington. The subject of this Team meeting is a follow-on to the Team’s November meeting on Operational Excellence and will focus on **“VISUALS and METRICS in the Workplace”**. Trumpf will discuss how their metrics help manage day to day activities as well as long term goals, how metrics can be tied into your goal process and how they support performance management in a production environment. The discussion will provide insight into who needs what information, when and where and on what level. Members will discuss visual manufacturing definitions and applications to see how they might help your company. Please RSVP your plan to attend!

Note: This month’s essay by Jim Womack is particularly relevant to the discussion of *Operational Excellence!*

**A Message from Jim Womack of the Lean Enterprise Institute
commenting on
“Making Everyone Whole”**

I've had a big smile on my face for much of the last month because I've had the opportunity to visit progressive organizations on three continents to look at their efforts to create lean value streams. Walking through any process, good or bad, seems to put a smile on my face for one of two reasons. If the process is awful it's easy to see how it could be better. And, if it has already been significantly improved from its original condition, I'm both pleased by the progress and aware that the next layer of waste is now visible and ready for elimination.

--continued on Page 6--

Consolidated Purchasing

- The Consolidated Purchasing Team met at Delta Industries, East Granby, on November 25th for their monthly meeting. Team Leader Gary Carle welcomed attendees and led a discussion on issues of relevance to procurement personnel. In regard to raw material pricing, always the significant matter for Team members, reports indicate continuing price stabilization. Titanium pricing remains flat and was reported to likely retain current pricing until production begins on the Boeing 787 and reaches full rate on the Airbus A380. The LME price of nickel has dropped during the past few weeks to \$7+/lb, down from \$8+/lb. Cobalt, whose price rose significantly during the past year, is again at the lower levels of earlier in CY2009. Members also shared information regarding recently negotiated favorable freight agreements.
- Suppliers having Agreements with ACM are:

	<u>Supplier:</u>	<u>Key Contact:</u>	<u>Telephone:</u>
Shop Supplies, Abrasives, Cutting Tools, etc	Turtle & Hughes	Mike Kelly Dave Howard	203-497-1529 203-497-1555
Raw Materials: Nickel, Cobalt, Titanium – Sheet, Plate & Bar Stock	Aerodyne Alloys	Kirk Smallidge	860-508-1271

- The next meeting of the Consolidated Purchasing Team will take place on Wednesday, January 6th at 8:00am at Joining Technologies Inc, East Granby.

News from ACM Members

Please forward significant company news and announcements to Allen Samuel at alsamuel@acm-ct.org for posting on the ACM website and publication in the UPDATE

“Making Everyone Whole”

--continued from Page 5—

However, I also found myself frowning as I walked along some value streams. This happened when I heard improvement teams complaining about the difficulty of gaining and sustaining the engagement and cooperation of everyone and every part of the organization touching the process being improved.

For example, on one walk through an information processing activity in a large service company, the team was complaining about the resistance of the company's information technology department to substantially modifying the company-standard software package in order to support the improved process. In another case, a team was bemoaning the resistance of experienced financial service workers to sharing the details of how they worked their way around the problems in the existing process. In both cases I found the teams defaulting to the most comfortable explanation for the lack of engagement: *Bad people*.

When this happens I try to take off my technical analysis hat and put on my human empathy hat. I ask, "How do the team's requests feel to the individuals or departments being asked to do something different?" As I do this I remember our old friend Vilfredo Pareto (1848-1923), who gave us the 80/20 rule. (Pareto's first statement of this rule was based on the discovery that throughout history 80% of the wealth in societies was controlled by 20% of the population. Joseph Juran later (1941) extended the 80/20 rule to quality problems where he found that 80% of a problem is typically caused by 20% of the possible causes. And today the 80/20 rule seems to find application in practically every activity.)

Pareto had a second insight of direct relevance to what I saw on my walks. This was his concept of economic optimality which states that any event in society should be judged in a positive light when no one is worse off and some individuals and organizations are better off. Public policy analysts (of which I was one early in my career) later realized that this concept applied particularly well in evaluating policy changes by governments. Not only were "Pareto Optimal" outcomes desirable on grounds of equity. Achieving them, by transferring some of the winners' gains to compensate losers (creating Pareto Optimality if it was not otherwise present), also made such policies much more feasible politically because potential losers were much less likely to resist change.

Applying this idea to the value stream improvements I was observing, I asked if the IT department and the experienced employees would be better off with the changed process. And the answer, after a bit of discussion, was clearly "no". The IT department would seriously overrun its annual budget in responding promptly to the team's request while falling behind on other projects. The experienced employees would very likely be replaced by younger, lower-paid employees able to operate the new process without the need for all the veterans' workarounds.

The root cause of the problem was therefore not bad people. In fact, those affected were reacting quite rationally to protect their interests because they would be hurt by the changes. Instead the problem was a lack of discussion and negotiation between the heads of IT, HR, and the improvement teams about how winners could compensate losers to make everyone whole.

What was particularly striking to me as the outside observer was that Pareto Optimality easily could be achieved in these value streams by reallocating the substantial savings gained from improving both processes. The total saving would be much more than adequate to compensate IT for the additional hours and cost incurred in modifying the software quickly. And the substantial savings from the revised financial process were ample for giving the experienced employees, most of whom were near retirement, a generous severance package or transferring them at similar compensation to other jobs opened up by the organization's high turnover. Yet the implicit, unexamined thinking of the

--continued on Page 7—

“Making Everyone Whole”

--continued from Page 6—

improvement teams was that all of the savings (plus the positive customer response to the improved processes) would be captured by the departments at the end of the processes and that everyone else should just get used to this new reality.

Understanding how change affects every participant in a value stream takes an extra effort and I often find that improvement teams shudder at the prospect of negotiations with leaders of all affected parts of the organization. But my experience over many years is that making visible efforts to make everyone whole -- by striving for Pareto Optimality whenever possible -- is the best way to make and sustain big improvements in core processes. So please give this concept a try the next time you find "bad people" standing in the way of valuable improvements in your value streams.

Best regards,

James P. Womack
Founder and Chairman, Lean Enterprise Institute, Inc.

