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CIRAS NEWS

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Snap-on Tools project filled with surprises, mutual benefits

INSIDE

A recent partnership that CIRAS arranged between Snap-on Tools in Algona and an Iowa State industrial engineering class resulted in a slew of pleasant surprises, from the possibility of significant savings for the manufacturer to real-world learning experiences for the students. The collaboration was an eye opener for CIRAS as well.

"I was surprised that Snap-on wanted our help," says CIRAS account manager Bob Coacher. "This place is well organized and flowing well. It's a company on the leading edge. I realized that they wanted to provide an opportunity to other manufacturers and students to learn from them."

Based in Kenosha, Wisconsin, Snap-on Inc. manufactures an extensive cadre of tools; its Algona subsidiary produces high-end, custom-made rolling tool cabinets for industrial and automotive use. The signature red tool cabinets, which also come in an array of colors, even pink, are popular with NASCAR mechanics. Snap-on's Algona plant has about 300 employees, making it the largest employer in the area.

In spring 2007, plant manager Scott Marienau contacted Coacher, who had visited the plant previously while making the rounds in his region. Snap-on employees' former experiences with Iowa State and their commitment to continuous improvement made Marienau wonder if Iowa State could help the plant become more efficient.

"Our facility here is very open to ideas to make our jobs better," he says. "We have a great attitude in the plant." Despite the workers' openness, Marienau wasn't sure what Iowa State could provide and if anything concrete would come from a cooperative effort. But Coacher, who regularly works with Iowa State's College of Engineering, had an idea to match Snap-on with Iowa State resources that would improve the company's competitive position in the marketplace.

Iowa State University students take a closer look at a Snap-on press as part of their project to reduce press downtime during changeovers.

Subsequently, 29 students in Iowa State lecturer Leslie Potter's senior capstone design course (IE 441) in the Department of Industrial and Manufacturing Systems Engineering devoted their fall 2007 semester to problem solving for Snap-on.

The class divided into seven groups, based on project ideas that Marienau had supplied after receiving input from Potter, who had observed operations at the plant. The students spent the rest of the semester traveling between Algona and Ames to arrive at specific solutions, culminating with a presentation to Snap-on management in early December.

"Senior design requires a very comprehensive approach because we ask the students to pull all they've learned together," Potter explains. "It's a huge mental exercise for them. It can be completely frustrating, and it takes an inordinate amount of time. It's one of those things that you love yet find terribly difficult at the same time. We're trying to make this as close to the real world as we can."

Beth Takemoto, whose team earned second place in the presentations and received an "A"

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CIRAS Mission Statement

Improve the quality of life in Iowa by enhancing the performance of industry through research, education, and technology-based services.

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The Center for Industrial Research and Service (CIRAS) provides education, research, and technical assistance to Iowa industry through partnerships with Iowa's universities, community colleges and government agencies. Assistance is supported in part by the DoC/NIST Manufacturing Extension Partnership, the DoD/DLA Procurement Technical Assistance Program, and the DoC/EDA University Center Program.

CIRAS assists Stellar in continuous improvement effort

Team conducts regular Thursday meeting with a plan and a purpose.

In early 2005, the management team at Stellar Industries, Inc., in Garner, Iowa, recognized the need for changes in the manufacturing plant.

Founded in 1990, the family-owned company, which manufactures hydraulic-truck-mounted equipment, including tire and mechanic-service-truck packages, appeared to have outgrown its space. Parts were being produced faster than assembly could install them, and since there wasn't space available to keep the parts in the plant, they were stored in off-site locations. The inefficiency of continually having to retrieve parts was impacting the company's ability to complete products on time. The team called on CIRAS for advice.

"We had a pressing issue regarding plant layout and space," explains Steven Schnieders, Stellar operations manager, "but we also wanted to learn more about lean management activities. We knew other companies were achieving better, faster, and more cost-effective methods of production, and that is what we wanted to accomplish."

Mike Willett, CIRAS project manager, visited the plant to observe how it operated. "They called me to do a plant layout in the assembly and install area, and they said they were thinking about adding more space," he says. "I took a look at their manufacturing process, and there were a lot of red flags, things I knew could be resolved by improving their manufacturing process instead of expanding the facilities."

Willett discussed theory of constraints (TOC) principles with the Stellar team. TOC is a management and improvement philosophy developed by Eli Goldratt and introduced in his book The Goal. The emphasis with TOC is on increasing throughput, the rate at which a company makes money through sales. To increase throughput, the system constraint must be identified, exploited, and subordinated before more money is spent to elevate.

"A manufacturing process is a series of dependent events, and one thing can't occur until something else occurs," Willett explains. "Throughput is like water flowing through a hose. If there is a kink or constraint in the hose, the water gets backed up. In the case of manufacturing, that backed up water is work in process inventory, which requires storage space." Using the TOC philosophy, inventory can be a liability to the extent that it limits throughput, because producing it ties up resources that could be used otherwise to generate throughput now.

With this information as background, Stellar was ready to move forward. CIRAS developed a project to take the 10-member leadership team and employees from strategic areas through a step-by-step process that would help them generate ongoing business improvement. Their goal: improve their bottom line.

A CIRAS productivity improvement team including Willett and project managers Tim Sullivan and Jeff Mohr met regularly with the Stellar team from October 2005 through January 2007, with follow-up continuing through March. While the CIRAS staff provided background and intensive guidance throughout the process, the Stellar team was responsible for using their knowledge and intuition about the unique characteristics of their operation to generate a business improvement plan.

The project was divided into five phases. The first phase established a common understanding regarding the policies, measurements, and behaviors that are required to generate the desired business and productivity improvement.

In the second phase, the Stellar team applied information from the first phase to create a map of their current state. This required taking an objective look at how their manufacturing processes were working, identifying their constraint, and determining how the constraint was impacting throughput.

The third phase focused on designing a new future state that incorporated TOC and lean principles. The fourth phase identified everything that needed to be changed and in what sequence the changes needed to occur in order to achieve the overall goal. The final phase, which is an ongoing process, is implementing those changes.

Recognizing that the buy-in of all employees is crucial to the success of a project like this, CIRAS encourages companies to use a team approach throughout the process. "Some companies feel a need to hire someone to be in charge, to be a champion of change," says Willett. "Our philosophy is that we want everyone to be a champion. If you have one person, and that guy leaves, or if CIRAS is the champion and we leave, then everything bogs down."

As Stellar moved through the process, they brought in employees from strategic areas to lead improvement

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Project Lead The Way paves the path to Iowa's high-tech future

Ross Hanneman has always been the type of kid who tinkered with things, taking apart click pens, toys, calculators, and small lawn mower engines to see how they worked. He even tried to build LEGO® kits without the directions. This high school senior has been able to advance his natural curiosity in Project Lead The Way (PLTW) courses at Jefferson High School in Cedar Rapids. In the process, he has elevated LEGO to an entirely different level.

"My favorite class was digital electronics," he says. "I got to build robots, and they're like LEGOs on steroids." Hanneman and his classmates used Boolean algebra to develop an algorithm that enabled the robots to negotiate a maze and turn when they encountered corners.

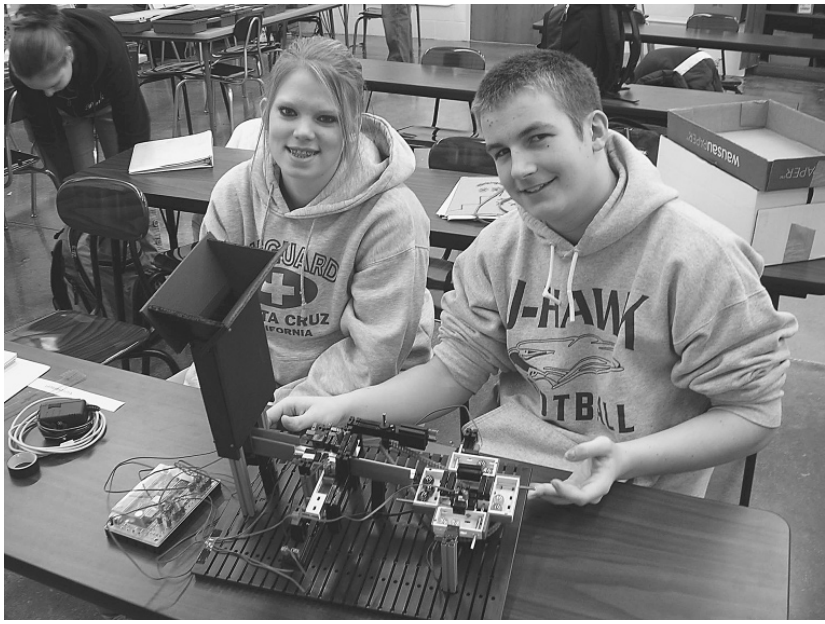
This pre-engineering curriculum, known for emphasizing hands-on, project-based learning, may appear to be heady stuff intended only for high achievers, but program leaders maintain that PLTW courses are both appropriate for most students and essential to the future health of Iowa's economy. Jefferson High School's only requirement for PLTW courses is that entry-level students must take algebra simultaneously in order to learn to process information logically.

"Project Lead The Way is taking average kids and giving them the opportunity to look at all different types of technology," says PLTW master teacher Lisa Digman, one of Hanneman's instructors. "We know not every single kid will be an engineer. The worst thing that could happen is these kids would get too much science and technology. How can that be bad? These are skills employers say our kids don't have."

Now in 46 states, PLTW got off the ground in middle schools, high schools, and community colleges a decade ago as a concerted attempt to bring more engineers into a workplace that increasingly needs people with a technical background. So far, these efforts appear to be successful; preliminary PLTW analysis of first-year college students who took these courses in high school indicates they pursue engineering and technology at five times the average national rate.

In Iowa since 2006, the curriculum is now being offered at about 70 Iowa middle schools, high schools, and a handful of community colleges, reaching about 1,000 students.

"Iowa is the only state with more than one affiliate director," notes Iowa State University's Camille Sloan Schroeder, who directs the program in Iowa along with University of Iowa counterpart David Rethwisch. "We felt it would be more successful with both Iowa State and U of I working together. This is a nice way of showing that we want a larger population of engineering students, that we see value for Iowa and we're working together to make this happen."



From robots to an automated marble sorter, Project Lead The Way gave Erika Willi, left, and Ross Hanneman a chance to play with LEGOs and explore their interest in digital electronics.

Teachers who want to teach the PLTW curriculum are required to complete an intensive two-week summer training program at Iowa State, Iowa, or another PLTW-affiliated university—and it's not for the mathematically fainthearted.

"They call it boot camp and they're not lying," Digman says. She put in full days at the Milwaukee School of Engineering and then did an extra two to six hours of homework each night.

Adds Sloan Schroeder, "Engineering lesson plans can be scary for teachers. The training gives them a set of tools to help them feel more comfortable teaching engineering."

In addition, counselors are required to attend a full-day training, which also is open to other school personnel; the intent is for them to become knowledgeable in engineering in order to advise interested students. Otherwise, "their interest may turn into an afterthought," Sloan Schroeder warns.

For the new generation of students, PLTW provides more than a glimpse into the real world of science and technology. "It gave me a chance to see how engineers work and the projects they face," 18-year-old Hanneman says. "I like building something and seeing the final product."

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CIRAS improvements lead to profits, plant success

Plant manager Joe Meier turned to CIRAS when Geater Machining and Manufacturing Company sought to create a new layout for its machining department. After all, Geater, located in Independence, Iowa, had worked with CIRAS in the past on other layout projects.

Machining is a key operation for Geater, which also performs finishing, sheet metal fabrication, assembly, and secondary operations for aerospace, electronics, and other high-tech companies across the country. Geater wanted to better utilize the space in its machining department to improve lead-time, reduce late shipments, and amplify productivity and production. The ultimate goal was to complete more jobs each month by reducing foot travel within the plant and decreasing material handling time.

CIRAS project manager Mike Willett worked with Meier and a great team of employees to jump-start the improvement by applying the process-of-on-going-improvement (POOGI). This improvement process is often used to maximize the amount of throughput generated by a system. The first step of POOGI is to identify the system constraint. The team determined that what limited the amount of throughput in the process was directly tied to the amount of time each day that the machine tool was cutting chips on a part. If they could increase this time they could increase throughput.

POOGI's second step is to exploit the system constraint. In Geater's environment that meant to do everything that they could to keep the machines producing chips. So the team performed an initial analysis to determine the reasons why and for how long machines were not producing chips. This generated a prioritized list of areas needing improvement, including, but in no particular order,

- lost time for lunches and breaks
- lost time taking the parts to quality control and waiting for inspection
- lost time trying to find tooling and programs
- lost time handling materials in and out of the machines
- lost time due to maintenance issues

The team then assisted in developing a policy to stagger lunches and breaks. They determined that the machine operators could save time by inspecting the parts themselves with equipment located directly at the machine. So they developed an equipment list of needed tools and storage facilities for these and modified the plant layout to accommodate them.

The third step of POOGI is to subordinate all non-constraint areas to the pace of the constraint. So they worked on system changes that had material handling, engineering, purchasing, and maintenance all working together to ensure the machine operators rarely had to stop making chips to deal with problems.

Willett worked with the team to identify and prioritize the tasks required to follow this process, while helping people work as a team to execute the changes. Geater management estimated that expanding the productivity of the machining department would lead to a five-percent increase in gross profit, resulting from a rise of $100,000 in departmental sales throughput and a reduction in inventory and operating expenses of $88,000.

Geater also sent management representatives to CIRAS' one-day workshop called "What Is the Goal?" This workshop has been conducted 35 times for over 100 Iowa companies to teach the theory of constraints (TOC). At the workshop, Geater representatives learned how to challenge their ways of thinking when making decisions that drive the company.

TOC has been one method used by Geater to decrease and eliminate waste and generate additional throughput. CIRAS combines teaching and implementing TOC techniques in the workshop and in on-site projects by providing the tools companies need to design custom solutions. "Companies that recognize the value of this service are the ones that seek us out," Willett says.

"Because our service is tied directly to client impact and we work with so many companies with similar problems, we can spot common pitfalls," Willett says. "Sometimes clients may not have considered these, so we can help them work through them to create a better solution."

CIRAS not only gave Geater the guidance to succeed in achieving their goal but also helped them apply the changes. The new layout plan for the manufacturing department was incorporated, and the necessary alterations were made. Geater saw immediate advancements in production and productivity after the renovation took place. To determine the success of the machining department remodeling project, Geater performed monthly measurements to calculate outputs in addition to conducting readings on individual machine efficiencies to analyze the changes that were made.

"We hoped we would see changes, and it was nice to think that we could expand our capacity so much," Meier says.

After creating a new layout for the machining department and boosting throughput—with an investment of $200,000 in plant equipment—Geater's sales rose by $1.5 million and they saw a cost savings of $300,000. The capacity of the plant expanded by more than 10 percent. Since the implementation, Geater has been able to take on extra work with the increase in space and productivity.

"We had serious layout problems," Meier says. "Different suggestions from CIRAS along the way really helped raise production and productivity in the plant."

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Partnership brings lean to small wood manufacturers

A value-stream-mapping team works at Kendrick Forest Products.

Managers at Trappist Caskets in Peosta needed help solving inefficiencies in their manufacturing process, so they sought assistance from Warren Johnson, Limestone Bluffs resource, conservation, and development coordinator. In response to their request in 2005, Johnson made contacts that led to a partnership and creation of a lean applications program designed specifically for small wood processors of 30 employees or less.

"I began contacting people that could help Trappist Caskets—Iowa DNR and CIRAS at Iowa State—and it became evident that with a little extra effort, we could reach multiple wood product manufacturers who have similar needs," says Johnson. "As we brought people and resources together, pulling funding from one place and expertise from another, we created a project that benefits the small wood products manufacturing industry."

Verl "Andy" Anders, CIRAS wood products project manager, and Jeff Mohr, CIRAS lean project manager, teamed up with Johnson; Dennis Michel, Iowa DNR; Tom Kammer, Northeast Iowa Community College; and Brian Brashaw, Natural Resources Research Institute, University of Minnesota Duluth wood industry specialist, to form the Iowa Wood Lean Partnership. The partnership's success is built upon a simulation developed by Brashaw's NRRI team and their cooperators at Crystal Cabinet Works in Princeton, Minnesota. Also contributing to the Iowa partnership's success was partial funding from the U.S. Forest Service Wood Education Resource Center.

Brashaw had learned from his work with wood manufacturers that they could benefit from lean processes. He also realized the standard lean simulation—an electronic circuit board—was not one that they could easily relate to their work environment. Several years before the Iowa partners contacted him, Brashaw had applied his knowledge of lean and created a new simulation using the construction of a dovetail drawer. He continued to fine-tune the training as he delivered it across Minnesota, Wisconsin, and Michigan's Upper Peninsula.

"During my wood lean training, participants actually put a drawer together using lean principles. They really get it, because they can relate every step of the process to their own shop," says Brashaw. "By sharing the simulation with the members of the Iowa Wood Partnership, the training has improved because I have gained a better understanding of lean practices from the CIRAS experts."

The partnership, which included and relied on the networking of community college economic developers and the Iowa Wood Industries Association, developed a five-phase project and introduced it to northeast Iowa wood processors. During the first phase, Brashaw presented the simulation to a large delegation of wood product senior managers to get buy-in and commitment from five companies. The companies that joined the partnership were Distinctive Wood Works Inc., Earlville; Dras Cases Inc., Lake Mills; Kendrick Forest Products, Edgewood; Dubuque Sash & Door Mfg., Dubuque; and Trappist Caskets.

A tour of Bertch Cabinet Mfg. Inc., a Waterloo cabinet manufacturer, gave the partners a first-hand look at lean principles in action. Employees of each Iowa Wood Partnership company then received the Wood Lean 101 training, with CIRAS following up with value stream mapping at each facility for a selected product family.

"At the first lean training, I could almost picture how to do it in the shop," says Matt Cable, owner of Distinctive Wood Works Inc. "When my five employees took the Wood Lean 101 training, they came back and completely reorganized the shop—in two hours. They were instantly able to apply what they heard and move on. We saw improvements immediately."

Amy Peterson, of Dras Cases Inc., believes that people going into lean training automatically think of eliminating waste in the production line process, but it goes much deeper than that. "Through lean we have reevaluated all the processes in our company from the front office to the back shipping dock," says Peterson. "The greatest end result of implementing lean into our company is the realization that there is no finish line. It is all about continuous improvement."

Creating and posting a scheduling board was a result of the lean process at Distinctive Wood Works.

Tim and Rhonda Kendrick, Kendrick Forest Products owners, attended the first meeting for managers and knew that lean could help their business, but they didn't take the time to put it in practice right away.

"We felt we had always believed in the principles of lean manufacturing, but believing in something and doing it are quite different," says Rhonda Kendrick. "About a year after the training, we had issues arise in the cabinet shop, and we knew it all related back to lean. By not getting started on lean we now had a mess at the shop, and we needed to get it started."

Over the next year the cabinet shop and sawmill employees received additional lean training, and new practices were put in place. Cellular manufacturing now makes the shop more efficient, and continuous-flow manufacturing keeps made-to-order products moving through the shop. Kendrick Forest Products' sawmill now has a system in place that helps them manage their inventory better, matching product availability with product demand.

"As we face difficult times in our industry, lean is what holds us together," says Kendrick. "It is a concept we can understand, apply, and see immediate positive results. There are times when we fall back into our old ways, then we have to stop and rethink again."

The five companies in the partnership received a list of "30-day quick hitters" and mentoring from the CIRAS specialists through summer 2007. The two or three follow-up visits by CIRAS included a version of lean training, value stream mapping, and an individualized plan for each company. Trappist Caskets, whose request for assistance initiated the program, improved their efficiency and received help setting up a new facility. Trappist Caskets was the only made-to-stock company in the partnership; the rest were made-to-order companies. Trappist also had an atypical work force; half were New Melleray Abbey monks.

Through the partnership, Trappist Caskets established standardized training in workstation areas and focused on flow, safety, and cost of goods. By meeting on a regular basis, management and employees improved communication and now work better as an overall team.

"After lean management trainings, we estimated some early results with a 20-percent increase in sales and a 3-percent gain in sales retention," says Kelly Myers, Trappist Caskets assistant manager. "We realize that every company has bottlenecks and that production can only move as fast as the slowest bottleneck, no matter what else you do. So we focus on decreasing waste at the bottlenecks to increase our production."

Myers, the other managers, and all their employees know that even during very busy times, they can't forget what they learned during the lean training: every person in the shop affects the bottom line. To be productive, they have to stay on the same page.

"We must remember what we learned," Myers says, "and grow with that knowledge."

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Wood products employees found it easy to relate lean principles to their own workshops as they constructed dovetail drawers as part of the training.

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for the semester, agrees that the project was labor intensive but rewarding. "It was the hardest class during my time at Iowa State and required a lot of time, but it was worth it," she says, estimating that she spent about 40 hours a week on the class and traveled each week to Algona, a two-hour drive north from Ames.

Her team evaluated how Snap-on could reduce the amount of setup and changeover time on the Dreis and Krump stamping press—the factory's largest metal sheet press. The design team's goal was to reduce the setup time by about 80 percent, from 45 minutes to 10 minutes.

Takemoto and her classmates were able to decrease the setup time to 12 minutes. They sped up production by using a process called SMED, or single minute exchange of die. The process involves identifying steps as internal, those that can be done with the press off, and external ones that can be accomplished while the press is running.

"The goal of this process is to eliminate any unnecessary tasks and move as many internal tasks to external in order to make the best use of the operators' time," she explains.

This college senior's experience verified that Snap-on employees are receptive to change, even though the average worker has been on the job for more than 30 years.

"I have never worked with a company where the workers are so willing to try any change," says Takemoto, who has spent her summers as an intern at another Iowa manufacturing plant. "They were willing to try whatever method we put out there. I had a great time working with them."

The other six teams tackled a multitude of projects, namely resolving defects in the powder coat line, reducing setup time on other presses, increasing the hanging of painted parts, evaluating products that require rework, and examining the daily plant schedule.

John Brenner from Snap-on (standing) consults with Iowa State University students. They're part of the senior capstone design class that devoted their fall 2007 semester to problem solving for Snap-on.

"I don't know if I had a unique group, but we received a lot of neat stuff—practical stuff—from them," Marienau says.

"It's all about helping companies improve processes," Potter adds. "We helped Snap-on find more time to run parts and less time being down, getting machines ready to go. It's about making things move more efficiently. It's not busy work. It has to be about design."

Of course, the ultimate test for a manufacturer on whether a pilot project is successful relates to money, no matter how the employees feel about the people involved. "My staff and I were impressed with the kids themselves. They knew the questions to ask," Marineau says. "I thought they were very innovative. We actually came away with dollar savings from this experience. I hope the kids are the better for it. We gained and they gained."

At this point, Marineau says the plant hasn't been able to implement the students' suggestions because Snap-on is in the middle of a major plant renovation and 51,000-square-foot expansion. CIRAS records the impact of the project on completion and a year later, Coacher says.

The delay in implementing her students' ideas doesn't disturb Potter. In fact, she says that's something these future industrial engineers should expect. "I help the students understand that no matter how amazing their recommendations are, companies have lots of irons in the fire," she says. "They have to write a project in such a way that the manufacturer can put it in a desk, pull it out six months later, and still be able to implement it."

Both Marienau, who has been the plant manager for four years, and Potter, who is in her eighth year of teaching, consider the alliance with CIRAS to be a natural one and a partnership with plenty of potential. Potter believes "it makes a huge amount of sense for us to be working with CIRAS" because Iowa State then can offer more to manufacturers throughout the state.

According to Marienau, "CIRAS has untapped resources—things available that I haven't even asked the right questions for yet." He is so enthusiastic about the outcome of this alliance that he already has arranged to have the 2008 senior capstone design course concentrate again on Snap-on.

"Tell Leslie (Potter) that we want another excellent group," he says. Perhaps all the players deserve an "A" for their role in this partnership.

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CIRAS assists Stellar

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activities, such as discussing ideas for lowering inventory levels in their respective areas. As a result, many of the 250 Stellar employees had the opportunity to learn about the philosophy of continuous improvement, offer their insights on the manufacturing process, and contribute to the implementation.

Now, Schnieders says, Stellar is driven by TOC principles: increase throughput, reduce inventory, and decrease operating expense. "This process really helped us see things through 'throughput' glasses," Schnieders says. "In addition, we have shifted away from capital solutions to creative solutions. We put everything into terms of 'Will it help us ship additional product?' A new machine might lower costs in a specific area, but if it won't help us ship additional product, then it won't help throughput, and we will be hard pressed to purchase it."

The original problem of storage space for inventory was resolved without capital investment. "We kept people busy producing inventory, but that created bottlenecks," Schnieders explains. "It wasn't helping throughput, so our tradeoff is that if we are slow, we are okay with finding activities for people that will be aligned with throughput initiatives."

Stellar has seen good results from the project. Throughput increased, allowing for a $4.5-million increase in sales without hiring additional staff or adding capital equipment and facilities. In addition, the company believes they retained $2.1 million in sales that they were at risk of losing had they not been able to increase production.

"Our relationship with CIRAS has been successful. They guided us and gave us the tools so we could implement the system ourselves," Schnieders says. "We have coined our lean system as CSI Garner, continuous Stellar improvement. It isn't a perfect system, but if it were perfect, we would quit trying to make it better. We know we need to keep everyone involved looking at things from different perspectives so that we can continue to improve."

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Team CSI Garner proudly displays the implementation schedule they developed to get from their current state to the desired future state.

Project Lead the Way

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About 10 percent of Hanneman's classmates at Jefferson High are enrolled in PLTW courses. One big incentive is that students are able to earn up to 15 college credits that they can transfer to a PLTW-affiliated university.

Digman promotes the program heavily to incoming high school students at the middle school each year and to the Jefferson High student body—especially girls. And she's had some success with her efforts, with the number of females in PLTW at her high school rising to 28 percent from 12 percent in just three years. Aside from exposing youth to engineering and increasing their proficiency in math and science, PLTW aims to increase the number of women in a field typically dominated by men.

"The long-term success of PLTW will require buy-in from secondary education and the business community," says Ken Maguire of the Iowa Department of Education. Iowa community colleges already have made a huge commitment, he says, allocating $900,000 to add another 60 PLTW Iowa sites in the next two years as part of a $3-million package with the Kern Family Foundation, a major national benefactor, and the Iowa Department of Economic Development.

Industry involvement is equally important. "We want to give our kids access to people in industry, to have them take tours where engineers work and to have engineers talk to them," Digman says.

Peter Hong, former CEO of Positech Corporation, a Laurens-based engineering firm, says, "Industry has to make a statement to local schools: your output affects us and our future in the community." In order to stop brain drain, Hong maintains that Iowans have to show that math and science are important, and Iowa manufacturers have to be leaders in moving schools in that direction.

As far as Hanneman's future is concerned, he plans to end up in Iowa with an engineering degree in his pocket. This inveterate LEGO builder wants to major in engineering at the Milwaukee School of Engineering and eventually land a permanent spot at Rockwell Collins, another PLTW financial supporter, in his home city.

For more information, please contact Camille Sloan Schroeder at 515-294-9965; camilles@iastate.edu.

CYtation Award received

Liesl Eathington received a CYtation Award from Iowa State President Gregory Geoffroy and P&S Council president Dan Wooding on February 15, 2008. Eathington has worked in the economics department since 1998. This past year, however, she assumed extra and important responsibilities leading directly to the revitalization of the sociology and economic departments' capacities to provide information and technical assistance to citizens, communities, and public officials in Iowa and beyond. Amidst staffing declines of SETA (Office of Social and Economic Trend Analysis), the chairs of both sociology and economics asked Eathington to step into a leadership role and revitalize the SETA program. In less than a year, Eathington's leadership and extra commitment have taken a struggling program and reorganized it so that it now focuses on a core, well-defined set of products and users. She also assumed extra responsibility to the State of Iowa's Economic Forecasting Council, coordinated an efficient re-design and re-implementation of the program's Internet capacities, and created a viable and valuable university asset that should well serve the university and the state in the future.

Eathington has assisted CIRAS with data on Iowa manufacturing and the Iowa manufacturing survey. She also assisted with several regional studies, targeting industrial growth opportunities in Iowa. This research is funded by the U.S. Economic Development Administration and administered by CIRAS.

SETA becomes ReCAP

SETA is changing its name to the Regional Capacity Analysis Program (ReCAP). ReCAP provides information and outreach services to communities.

We focus on issues related to regional economic and demographic change. Our services are designed to inform local decision-making, policy-development, and strategic-planning processes. ReCAP's services include the following:

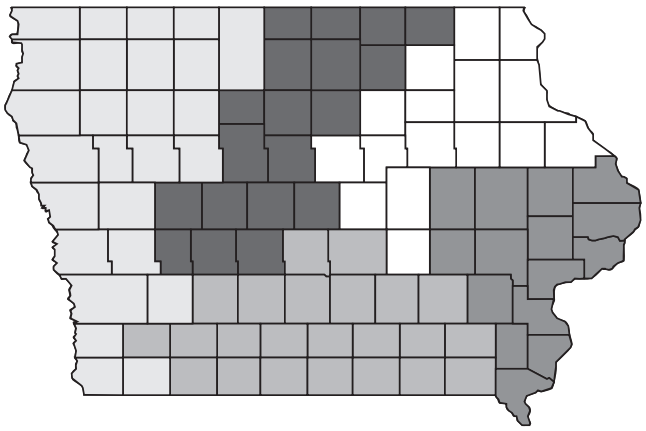
- Information resources
- Research services
- Community education
- Community development assistance

ReCAP is administered by the Departments of Economics and Sociology and Extension Community and Economic Development.

More information on the ReCAP program is available at www.recap.iastate.

Account territories

Account managers provide initial manufacturing needs assessments and also explore and match resources to client needs. The state of Iowa has been divided into five account managers' territories. Their contact information follows.



North Central
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Three staff receive certification

By Tim Sullivan, CIRAS

Steve Vanderlinden and Sharmon Norris, procurement specialists, recently received certifications from the Professional Review Board of the Association of Procurement Technical Assistance Centers (APTAC). Vanderlinden received a Level 2 and Norris a Level 1 certification. These designations are based on formal education as well as specific procurement training and experience.

Jim Black has received his Lean Bronze Certification from the Society of Manufacturing Engineers (SME). Criteria included a written exam as well as submission of a portfolio of projects that show experience in successful lean implementations. Black was also recently recertified by the American Society for Quality (ASQ) as a Six Sigma Black Belt. Recertification requires continuing study and successful application of the Six Sigma body of knowledge.

CIRAS encourages staff to seek certifications as a means of keeping up with the latest information and techniques of providing services that will impact the bottom line of manufacturing companies in Iowa. We congratulate Steve, Sharmon, and Jim for their continued professional development!

Steve Vanderlinden

Sharmon Norris

Jim Black

New southeast Iowa CIRAS account manager

Sean Galleger joined the CIRAS team in April as the new account manager for the southeast district of Iowa. Galleger was born and raised in Iowa and received a BA in accounting from the University of Northern Iowa. Since then, he spent over 20 years managing financial and operational areas of manufacturing firms throughout the United States, including mergers and acquisitions, contract negotiations, and financial analyses. Examples of his experience include 13 years in the aerospace industry in California, CFO of a manufacturing firm in Detroit, acquiring and selling manufacturing businesses in Texas, and recently operations director and vice president for automotive companies in Wisconsin and Indiana.

Galleger moved back to Iowa in 2006 and was very excited about the opportunity to join the CIRAS team. “I believe my experience fits very well with CIRAS’ objective of helping Iowa manufacturing companies excel in today’s global markets.”

In his spare time, Galleger loves to travel with his family and helps coach the high school golf team.

Contact information:
Sean Galleger at 515-290-0181; galleger@iastate.edu

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WebWatch

The CIRAS Web site has a quick and easy way for Iowa manufacturers to access information on the Procurement Technical Assistance Program (PTAP). This is a national program administered by the Defense Logistics Agency for the U.S. Department of Defense. Local centers such as CIRAS provide assistance to businesses in marketing their products and services to federal, state, and local government agencies. These services are offered at a nominal cost and sometimes at no cost. CIRAS manages PTAP in Iowa.

CIRAS procurement specialists work with Iowa businesses to understand the market potential of government procurement, reduce the barriers inherent in government contracting, and assist existing government contractors with market expansion. Here are some examples of assistance CIRAS staff can provide as part of PTAP:

- Bid preparation assistance to ensure the submission of a complete and proper bid document
- Central contractor registration to help businesses register with the government and the Online Representations of Certifications Application to help them create Internet applications that allow 24/7 user access
- Electronic commerce to speed the development, improve the quality, and reduce the cost of new military products and systems
- Market research to identify and reach potential markets
- Post-award assistance to help contractors meet quality assurance requirements
- RFID to improve the management of inventory by providing hands-off processing

For more information, visit the CIRAS Web site at

www.ciras.iastate.edu

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