Expansion at ISU Research Park Will Create Economic Development Hub

This time next year, CIRAS expects to be settling into brand new offices at the Iowa State University Research Park in a new building that will, for the first time, pull together most of Iowa State’s economic development services into a single location.

The new building, to be known as the Iowa State University Economic Development Core Facility, will anchor an area called “Hub Square”—the new main gathering space for the 400-acre research park.

The core facility, once it opens next summer, is intended to serve as a one-stop shop for entrepreneurs, businesses, and industries that want to partner with Iowa State University in a multitude of ways.

“The idea is to encompass in one facility the lion’s share of services that are under the umbrella of economic development or that are working with industry,” said Alison Doyle, marketing coordinator at the research park, which opened in 1987. “Right now . . . it’s hard for companies to know what to do to engage with Iowa State.

“This building will not only create a ‘front door,’ but some really neat synergies.”

The $12 million project anchors Phase Three of the research park. It officially broke ground in September, but most of the work to date has involved construction of a road to provide access to the site.

Meanwhile, Phase Two continues, and new projects there will bring the research park its first commercial amenities to benefit site employees. Developers in June announced plans for a new restaurant at 2400 North Loop Drive to be built by the owners of The Café and several other restaurants in Ames.

The new 49,210-square-foot core facility, located south of the existing research park, will hold about 100 employees and conference and meeting space for several hundred people. It is expected to open in June 2016.
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On the Cover: An architect’s rendering of Iowa State University’s Economic Development Hub Facility.

CIRAS Mission: Every day we will enhance the performance of industry through applied research, education, and technical assistance.

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Relocating there in addition to CIRAS will be research park administrative offices, the Office of Economic Development and Industry Relations, the Iowa Small Business Development Center, the Pappajohn Center for Entrepreneurship, Iowa State’s Office of Intellectual Property and Technology Transfer, the Iowa State University Research Foundation, the Cultivation Corridor regional economic development project, and CyBIZ Lab.

CIRAS is one of the largest economic development units at Iowa State and has more than a dozen partnerships with entities throughout the state, said Ron Cox, CIRAS director and associate dean in Iowa State’s College of Engineering. Together, CIRAS and its partners serve a broad mix of established companies that work in manufacturing, construction, information technology, utilities, and professional, scientific, and technical services.

With all of Iowa State’s economic development units moving under one roof, there will be more opportunities for collaboration and communication, Cox said.

“If a group is visiting and wants to talk about a project, the Office of Intellectual Property will be there, CIRAS will be there, the SBDC will be there,” Cox said. The move “is a service to the client to make it easy for them to do business with Iowa State.”

The research park currently has approximately 60 tenants and more than 1,300 employees. Doyle said the full third-phase development—another 200 acres and 902,000 square feet of office space—will bring the number of employees to a “conservative estimate” of 6,000 at completion.

The park is home to about 40 businesses, from software developers to small manufacturing firms, and it also is attracting employers expanding from elsewhere in Iowa.

Vermeer Manufacturing of Pella announced plans last fall to develop on the site, while another tenant, Workiva, also saw the potential to tap into student and faculty resources at Iowa State to expand its businesses.

Vermeer was the first Iowa manufacturer to join the research park in 2012. It is expected to open the Vermeer Applied Technology Hub in mid-2016 to house offices, collaborative meeting space, and an equipment bay for industrial and agricultural equipment that the company manufactures.

“In our opinion, there is no better place to allow this important work to be done than Iowa State University,” Doug Hundt, president of Underground
ISU Career Fairs Offer Major Forum for Matching Students, Businesses

Phoebe Sexton had obtained a master’s degree in journalism and worked in Boston, New York, and Dallas before deciding that media wasn’t the career for her. She returned to Iowa State in 2014 as an adult mechanical engineering student, and it was in the course of researching job prospects in her first semester back that she attended the fall Iowa State Engineering Career Fair.

“They didn’t really have anything like this for journalism students,” said Sexton, 31, who has since refocused her goal and now is majoring in materials engineering.

“In terms of the magnitude . . . it was all new to me.”

Career fairs are an important step in the job-hunting process, providing valuable networking opportunities between businesses and students at all levels—from first- and second-year students seeking internships to soon-to-be grads entering the work world.

Brian Larson, director of Engineering Career Services, said this fall’s career fair will have close to 350 employers and at least 5,700 students in attendance. The College of Engineering estimates that employers will hold more than 1,500 interviews leading up to the job fair. Eighty-five percent of past participating employers say Iowa State’s career fairs play a significant role in their college recruiting process.

Career fairs are open to all Iowa State students and other job seekers, including students from other schools. The 2014 Fall Ag Career Day event brought students from 16 educational sites to network with a record 250 employers.

Companies seeking to take part in one of the career fairs should contact individual colleges and register through CyHire.

Sexton, who plans to attend this fall’s career fair in search of an internship in the materials handling field, started early. Over the summer she researched the companies that offer the type of career she wants and the skills those employers are seeking.

“This far out, I am confident I have the time to do the preparation to at least get the interviews,” she said. “You’ve always got to aim high.”

Find more details about campus career fairs at www.career.iastate.edu.

Career Fair Dates

Here are the Iowa State University fall career fair dates and locations, along with contact information for employers interested in participating:

Engineering Career Fair: Noon to 6 p.m. Tuesday, September 29, Hilton Coliseum and Scheman Building. Contact: ecs@iastate.edu.

People to People Career Fair (social/human services, education, health/wellness, government and hospitality): 1 to 5 p.m. Wednesday, September 30, Scheman Building. Contact: hscareers@iastate.edu or call 515-294-0626 for human sciences and lascs@iastate.edu or 515-294-8691 for liberal arts and sciences career services.

Business, Industry, and Technology Career Fair: Noon to 6 p.m. Wednesday, September 30, Hilton Coliseum. Contact: hscareers@iastate.edu.

Ag Career Day: 9 a.m. to 3 p.m. Tuesday, October 20, Lied Recreation Athletic Center. Many employers will follow with on-campus interviews October 21. Employer registration begins in late July. Contact: mikegaul@iastate.edu.
Accumold Proves Proficiency, Wins Business Thanks to CIRAS-arranged Tests

An Ankeny-based plastics injection molder landed new business and launched new growth after the firm was able to prove its capabilities via testing arranged last year at Iowa State University.

Accumold, a company that makes small plastic parts for a variety of technology and medical devices, announced plans in February for a $12 million expansion that will add 200 jobs at its Ankeny plant over the next three years.

Company president and CEO Roger Hargens recently acknowledged that at least “a part of” that expansion became possible thanks to work the company landed as a result of CIRAS-arranged tests performed by Iowa State University’s Center for Nondestructive Evaluation (CNDE).

“Obviously the partnership was great, and their proximity was fantastic,” Hargens said of CIRAS. “Their willingness to help us in a very fast fashion was really beneficial for us and our customer. They really jumped through hoops for us.”

Accumold declined to discuss specifics of the project, but company officials said it boiled down to this:

Last spring, Accumold developed a need to verify its work on a prototype “smart device.” The project involved assembling three microelectronic components into one plastic part roughly 2.5 mm by 1 mm. Accumold needed to prove that it could reliably produce parts with everything in the correct location, that parts would be functional, and that they would hold up in a harsh environment.

“Typically, our customers will do that testing themselves,” said Aaron Johnson, vice president of communications. “But because of the nature of this particular project and the customer and the speed, we took on that process. It had to get done.”

The company turned to CIRAS and CNDE, where program manager Dave Utrata used x-rays to examine a sampling of parts. “We had to do geometric magnification to make an x-ray image of a small object big enough to say, ‘OK, that’s good and that’s bad,’” Utrata said.

“Setting up the test often takes longer than the test,” he said. “Parts handling is a big issue. Knowing what to do, being able to rapidly adjust and fine-tune x-ray system parameters . . . It’s learning how to handle these small things without going, ‘Oops . . .’”

Hargens said the tests ultimately had “a significant impact on our relationship with this customer and our ability to get more business from them.”

It was a challenging project” for CIRAS, Hargens said. “It wasn’t a walk in the park by any means. But they did a very nice job.”

For more information about product testing, contact Chris Hill at chhill@iastate.edu or 515-294-5416.
With Help from CIRAS, Dur-A-Lift Designs a New Home

A George, Iowa, manufacturer of farm equipment, scooters, and hydraulic lift equipment is ramping up production in a new 26,000-square-foot building that was designed, with CIRAS’ help, to take the entire operation to a higher level.

Diversified Technologies Inc. (DTI) traces its founding back to the 1888 blacksmith shop of a German immigrant. The company has evolved over the intervening decades to become a diverse corporate family that includes Sudenga Industries Inc. agricultural equipment, Ranger All-Season Electric Scooters, and the popular Dur-A-Lift line of mounted aerial lifts.

President Larry Kruse said the company has long believed that “we have the opportunity to increase sales of Dur-A-Lift equipment, but we hadn’t had the capacity to do that until now.”

The new building, which was formally dedicated on April 22 at a ceremony attended by Iowa Governor Terry Branstad and Lieutenant Governor Kim Reynolds, is designed to give Dur-A-Lift the room it needs.

“We’d like to believe that in this building we can double our (Dur-A-Lift) output,” Kruse said. “We’re very hopeful that can happen. We see a bright future for our lift business.”

To capitalize on that future, DTI sought out CIRAS project manager Jim Poe for help in laying out the new production line in the safest and most efficient way possible. Poe met with a team of DTI employees to talk through all the steps required for a new building and to help them agree on how it should function.

General manager Ron Stewart and his team “had a good idea of what they needed,” Poe said. “They just kind of needed somebody to help them think things through and challenge them a little bit. In this case, there is a lot of heavy lifting that’s going on (on the floor). We just needed to make sure they weren’t lifting over the top of people.”

Poe knew “the right questions to ask the group,” Stewart said. “We’re very hopeful that can happen. We see a bright future for our lift business.”

“’If we hadn’t had Jim helping us and we hadn’t gotten involved in studying the energy side a little more, we might have missed a few ways to make it a better building.’
— Larry Kruse

“’If we hadn’t had Jim helping us and we hadn’t gotten involved in studying the energy side a little more, we might have missed a few ways to make it a better building.’
— Larry Kruse

“We’re very pleased” with CIRAS involvement, Stewart said. “As far as we’re concerned, it’s a real success story.”
CIRAS Joining Four Centers in a Bid to Spur Applied Research

Iowa State University conducted more than $226 million worth of research in fiscal 2014—work that expanded knowledge and hopefully will elevate Iowans’ standard of living.

Iowa’s Re-Envisioned Economic Development Roadmap, a report prepared last year by the Battelle Technology Partnership Practice, called for strengthening ties between Iowa’s research entities and entrepreneurs. It argued that targeting resources in areas such as agriculture, industrial machinery, and other places where Iowa has expertise makes it more likely that companies will innovate and flourish.

Toward that end, CIRAS has joined four Iowa research consortia at Iowa State University. Here’s what we’re supporting:

<table>
<thead>
<tr>
<th><strong>THE BIOECONOMY INSTITUTE (BEI)</strong></th>
<th><strong>CENTER FOR BIOPLASTICS AND BIOCOMPOSITES (CB²)</strong></th>
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<tbody>
<tr>
<td><strong>Purpose:</strong> To advance the use of biorenewable resources for production of fuels, energy, chemicals, and materials</td>
<td><strong>Purpose:</strong> To develop the knowledge that will allow production of an array of high-value products—including plastics, coatings, adhesives, and composites—from agricultural and woody feedstocks that are compatible with current industrial manufacturing systems</td>
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<td><strong>Web:</strong> <a href="http://www.biorenew.iastate.edu">www.biorenew.iastate.edu</a></td>
<td><strong>Web:</strong> <a href="http://www.cb2.iastate.edu">www.cb2.iastate.edu</a></td>
</tr>
<tr>
<td><strong>Director:</strong> Robert C. Brown, <a href="mailto:rcbrown3@iastate.edu">rcbrown3@iastate.edu</a></td>
<td><strong>Director:</strong> David Grewell, <a href="mailto:dgrewell@iastate.edu">dgrewell@iastate.edu</a></td>
</tr>
<tr>
<td><strong>Membership:</strong> Since 2002, BEI has engaged more than 230 faculty and staff involving more than 25 research centers, institutes, and programs.</td>
<td><strong>Membership:</strong> CB² is a collaborative effort by the Biopolymers &amp; Biocomposites Research Team at Iowa State University, the Composite Materials and Engineering Center at Washington State University, and industry members.</td>
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<tr>
<td><strong>Number of industry partnerships (Iowa and around the nation):</strong> 16</td>
<td><strong>Number of industry partnerships (Iowa and around the world):</strong> 28</td>
</tr>
<tr>
<td><strong>To learn more about biorenewables programs and research, contact:</strong> Deputy Director Jill Euken at <a href="mailto:jeuken@iastate.edu">jeuken@iastate.edu</a></td>
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<tr>
<th><strong>CENTER FOR BIORENEWABLE CHEMICALS (CBIRC)</strong></th>
<th><strong>CENTER FOR E-DESIGN (EDESIGN)</strong></th>
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<tr>
<td><strong>Purpose:</strong> To develop the knowledge, technology, and partnerships necessary to transform industrial chemical production into a renewable resource-based industry</td>
<td><strong>Purpose:</strong> To research and develop digital design and manufacturing methods and tools that drive collaborative, integrated and immediate applications to deal with industry needs</td>
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<tr>
<td><strong>Web:</strong> <a href="http://www.cbirc.iastate.edu">www.cbirc.iastate.edu</a></td>
<td><strong>Web:</strong> centerfordesign.org</td>
</tr>
<tr>
<td><strong>Director:</strong> Brent Shanks, <a href="mailto:bshanks@iastate.edu">bshanks@iastate.edu</a></td>
<td><strong>Center Director:</strong> Janis Terpenny, <a href="mailto:terpenny@iastate.edu">terpenny@iastate.edu</a></td>
</tr>
<tr>
<td><strong>Membership:</strong> CBIRC is a partnership between eight U.S. and four foreign research institutions.</td>
<td><strong>Associate Director:</strong> Dennis Mowery, <a href="mailto:dmowery@iastate.edu">dmowery@iastate.edu</a></td>
</tr>
<tr>
<td><strong>Number of industry partnerships (Iowa and around the nation):</strong> 31</td>
<td><strong>Membership:</strong> The Center for e-Design is a joint research coalition of seven universities working closely with businesses and government.</td>
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CyBIZ Lab Helps Iowa Companies Bring Student Labor to Bear on Business Problems

Need to do some research but don’t have the necessary time or employees? Want help exploring new markets? Need to investigate new manufacturing equipment or determine the potential ROI of a new product idea?

Iowa State University has a way to help Iowa businesses answer those—and other—types of questions.

CyBIZ Lab is an Iowa State College of Business program and is located along with the Iowa State University Pappajohn Center for Entrepreneurship and the Iowa State Small Business Development Center at the Iowa State University Research Park. It was established, according to lab director Judi Eyles, “to help engage companies with the university and help provide students with practical learning experience.”

It works like this: Companies identify a business opportunity or issue they need to have researched or evaluated and work with CyBIZ Lab to determine the necessary length and scope of a project. Then interdisciplinary teams of students, each led by an MBA student, work the issue. Companies typically pay a fee of $5,000 per project.

CyBIZ Lab teams have worked with nearly 30 companies over the past two years—from small nonprofits to large global companies headquartered in Iowa—on a variety of projects lasting from 6 weeks to 28 weeks. Eyles said students have worked on marketing plans, conducted competitive strategy analyses, performed market research, and developed branding and market penetration strategies, among other things.

As a resource, CyBIZ complements the technical and engineering development services that CIRAS can offer to Iowa companies.

“You can look at new product offerings, manufacturing processes, or engineering solutions, but you need to understand the business case for it, too,” said Carey Novak, CIRAS program manager. “The services CyBIZ provides give CIRAS clients a much more complete picture of the business case.”

Eyles sees the CyBIZ Lab as a win-win. Students get paid for their work and gain real-world experience. The companies involved get a team of dedicated students to target a specific problem. And both sides get to scope out the other for potential postgraduation employment.

CyBIZ Lab and CIRAS both refer clients to each other, depending on a company’s needs.

In some cases, a project may start out as a CIRAS project or student capstone engineering design project and then transition when business problem-solving is needed.

For more information on utilizing CyBIZ Lab services, submit a project request form at www.business.iastate.edu/cybizlab or contact your CIRAS account manager.
ISU Introduces Two New Online Master’s Degree Programs

Engineering-LAS Online Learning recently launched new online master’s degree programs in engineering management and business analytics. Both are collaborative efforts with the Iowa State University College of Business.

The engineering management degree was created for engineers with three or more years of experience and an interest in management jobs. The 30-credit program, developed in association with the Department of Industrial and Manufacturing Systems Engineering, offers an alternative to an MBA and allows students to take courses entirely online.

Senior lecturer Dave Sly, coordinator of the new program, said it emphasizes “statistics, process modeling and analysis, quality, information systems, and project management” and includes traditional business courses in accounting, finance, and management.

The business analytics master’s degree, which is the first of its kind offered online in Iowa, is a cohort-based, 21-month interdisciplinary program blending marketing and statistics with technology. It was designed, in partnership with the Iowa State College of Business’s Department of Supply Chain and Information Systems (SCIS), for professionals with at least two years of experience working in positions that involve data-driven decisions.

“Course topics vary from basic foundations of business analytics to the basics of statistical modeling and forecasting, as well as data visualization—how to mine both text-oriented and numbers-oriented data [for] insights into what items need to be tackled,” said Sree Nilakanta, chair of the SCIS department.

The business analytics program launches in August. In addition to online courses, it requires students to attend three one-week sessions on the Iowa State campus: a beginning orientation, a second summer session in which students select teams for capstone projects, and a final session during the last week in which students present projects.

For more information, visit www.elo.iastate.edu and www.business.iastate.edu/masters/business-analytics.

New CIRAS Advisory Council Member

Diana Kautzky has been appointed to a three-year position on the CIRAS Advisory Council. Kautzky, president of Deaf Services Unlimited, Woodard Hearing Centers, and the Language Interpreting Group, has worked with CIRAS as a business owner for years and said that relationship provided valuable assistance to help her organization position itself for government contracts across the country.

Kautzky is a graduate of the Juilliard School’s Interpreting for the Theatre in New York City and provides interpreting services for the Broadway Series of the Des Moines Performing Arts. Deaf Services Unlimited, located in Urbandale, was founded in 1996 and acquired Woodard Hearing Centers, which was founded in 2008. Language Interpreting Group was founded in 2013.

Deaf Services Unlimited provides sign language interpreting and captioning services for businesses, institutions, and agencies nationwide. It has a national network of interpreters and can provide services in person or remotely via video. Woodard Hearing Centers, which began in 1946 and has 17 locations, is Iowa’s oldest and largest hearing aid center. Language Interpreting Group provides spoken language interpretation and translation services for businesses with global communication needs.

Kautzky’s focused business areas are entrepreneurship, communication, business development, disability services, and access. Deaf Services Unlimited holds U.S. General Services Administration certification and provides services to multiple government agencies nationwide.
In Times of Shortage, Build Stability and Avoid Seasonal Layoffs by Sharing

*Donna Dau’s goal for each of the last three years has been to replace as few employees as possible.*

But shrinking that number in the future means a lot of recruitment right now—both of new workers and of the new companies that Dau hopes will help her expand on a potentially groundbreaking way of dealing with Iowa’s looming shortage of skilled laborers.

Dau, former leadership coordinator for Calumet, Iowa-based Midwest Independent Soil Samplers (MISS), is now a private consultant. She also functions as one of Iowa’s chief advocates for “business labor partnerships.” The partnerships are cooperative agreements that essentially spell out how employees can be shared by companies that, on their own, each have only a partial year’s need for a skilled workforce of seasonal employees.

Properly managed, such marriages have the potential to be winners for everyone, advocates contend. Companies save on recruitment expenses, training costs, and unemployment claims while guaranteeing that quality seasonal workers will stick around. In turn, the employees get a taste of variety and, in most cases, better wages and benefits than they would have gotten from seasonal work alone.

“This is a far-reaching opportunity,” Dau said. “The partnership idea is very interesting to the next generation (of workers) because they like variety. They want to broaden their skill set.”
In a time when new workers are hard to find, smart and seasonally cyclical Iowa companies appear to be seriously studying the partnership idea—as well as other, different, ways of balancing demand so they can keep valuable employees on the payroll throughout the year.

Right now, the complicated requirements of company matchmaking make such relationships difficult to pull off. But difficulty is in the eye of the beholder.

“As the market gets tighter and tighter for skilled labor, you’re going to be seeing businesses look at every possible option,” said Bob Becker, a Spencer-based workforce adviser with Iowa Workforce Development (IWD), the state unemployment agency. “As time goes on, I think you’re going to be looking at all different kinds of arrangements.”

Founded in Minnesota in 1981, MISS was purchased by former employees in 2010. In 2012, the new owners hired Dau to rework the staffing and get away from an expensive, twice-yearly practice of recruiting overseas college students to work in the spring and fall. Instead, MISS moved to local, seasonal laborers in Iowa and the six other states where it operates. Then Dau started pondering ways to increase stability.

The result so far includes four partnerships that cover 10 of the 30 seasonal employees MISS hires in Iowa each year. Four more employees in Nebraska are shared between MISS and a fifth company, an organic farm.

All of those arrangements required complicated discussions up front. To succeed, partner companies need to agree early about items such as who pays what for payroll and insurance. (Midwest Independent Soil Samplers has a human resources computer system that is designed to accept input from outsiders; so MISS pays the workers, and partners pay MISS.) The shared employees need to understand that disciplinary problems on one job could threaten employment at the other.

And everyone must agree on what will happen if one company is still in its busy period when the calendar calls for a worker to switch jobs.

“We are flexible,” Dau explained. “We are willing to work with our partners.”

In some cases, MISS has agreed to let shared workers drive its company-owned vehicles for work done on the partner’s job or to split the cost of safety equipment that’s required by a partner but not by the soil-sampling company.

Such details are frequently where the difficulties arise, said Gary Ficken, president of Bimm Ridder Sportswear in Cedar Rapids. Bimm Ridder briefly shared employees with another screen printer after flooding damaged Ficken’s business in 2008. Subsequent talk of sharing was stifled by legal questions, he said.

Complications such as the insurance question are thorny but ought to be solvable. “To me, it should be a win-win for everybody,” Ficken said.

“Unfortunately, we just haven’t found an overly willing partner.”

Dau said MISS, despite paying benefits to shared employees and making various accommodations to partners, still saves money in comparison to the cost of recruiting and training new workers each season. Partners likewise benefit via access to quality employees. The only problem appears to be finding enough.

“If I would say it’s a creative thing that we’ve been piloting, but it just hasn’t worked out,” said Jill Bidwell, human resources manager at Danfoss Power Solutions, a mobile hydraulics equipment manufacturer with facilities in Cedar Rapids.

Business-to-business labor partnerships

Business-to-business labor partnerships have both tremendous potential upside and a host of potential complications.

Benefits
- Employers save on recruitment and training as well as maintain quality workers.
- There are fewer unemployment claims from seasonal layoffs.
- There is access to partner’s already-proven employees.

Challenges
- Bridge gaps on pay scales and insurance. Who pays for what?
- There is a need for trust. (Don’t steal my people!) What if we’re both busy?
- Worker has to want to be shared.

Ways the Idea Could Grow
- Millennials may like this kind of work.
- Could somebody (a state agency?) serve as a matchmaker?
- What’s the role of temp firms?
- Eventually, worker shortages may make the hassle worthwhile.
company with a plant in Ames and one employee that it shares
with the soil sampling firm. “It’s been a successful pilot. We
just haven’t been able to expand it with MISS.”

Some partnerships are complicated by an exception in Iowa
law that doesn’t require unemployed workers to search
for new jobs if they’re the victims of seasonal layoffs.
(Some employees seem to prefer a few months of leisurely
unemployment each year to life as a shared worker.)

For Danfoss and MISS, the main issue has been geography.
Midwest Independent Soil Sampling has employees
throughout the state. But right now (this may change with
future MISS recruitment efforts), there simply aren’t enough
workers who live close enough to Ames to make a shared job
there practical.

Bidwell said Danfoss will happily pursue labor partnerships
in the future, but the cost of complexity currently exceeds the
benefit. “There simply aren’t enough hours in the day” to deal
with the complications on a worker-by-worker basis, she said.

Iowa Workforce Development currently provides a host of
targeted resources to help employers find skilled workers. But
IWD’s Becker said the state currently has no plan to launch
any kind of workforce matchmaking system. (Although IWD
did host an informational meeting for companies about the
topic last fall.) Becker acknowledged that business labor
partnerships might benefit Iowa in general, since fewer
seasonal layoffs means fewer seasonal unemployment claims.

“We wouldn’t necessarily be looking to do that,” he said of
a possible IWD role in matching companies. “But I could
envision a way where something like this could be done by the
temp agencies. They could get on the front side of the problem,
instead of the back side of the problem.”

Dau sees the predictability of shared employees as a key
benefit over temporary workers. With a partnership, she
stresses, “you’ve got a guaranteed quality person coming from
our company.”

Change in how Iowa
approaches employment is
inevitable, Becker believes.

“As Baby Boomers start
to exit the workforce, you are
going to start looking at
solutions you never thought
you’d be looking at.”
— Bob Becker

“Shivvers Manufacturing Leveled Its Load,
Lessened Seasonal Layoffs by
Adding a Product

Back in the 1980s, when farmers stopped buying grain
dryers and Iowa agriculture in general was in collapse,
Shivvers Manufacturing Inc. hit on an important idea:
they needed something new to make.

The result—launching a new business manufacturing zero-
turn radius lawnmowers—helped get the company through
a key crisis. It also has proved to be an excellent way of
smoothing out the general ebb and flow of the seasonal
grain-drying business.

“It was our answer to employment at a period of
extraordinary down cycle in agriculture,” said company
president Carl Shivvers. “And then, as both businesses
really rebounded, there was a complementary production
cycle between lawnmowers and grain-drying equipment.”

In the beginning, the peak production for grain dryers was
from July through September, while lawnmower sales
topped out in April, May, and June.

“We had a virtually perfect offset,” Shivvers said, which
allowed the company to dramatically dampen volatility and
vastly reduced the need for seasonal layoffs.

The offset is no longer perfect, since grain dryers now
generally are ordered over the winter for delivery in the
spring. But the lawnmower business has proved to be
steadier, with sales to wholesalers throughout the year.
Also, Shivvers said, “we do have some business in Australia,
which is truly counter-seasonal.”

Shivvers urges caution for any other Iowa company consid-
ering adoption of such a strategy. You have to have the right
product, and you can’t just make anything—or everything.

“I don’t think you do it on a short-term basis”, Shivvers said.
“Job shops are very cyclic, while a factory has to become a
specialist in manufacturing. I don’t think short term answers
work. You have to commit.”
The pool of unemployed workers ebbs and flows to a degree not always captured in official unemployment statistics. Beyond business cycle effects, seasonal variations in labor demand can introduce high variability into a region’s unemployment levels. As a consequence, employers may find it easier or harder to find workers at certain times of the year.

The seasonal fluctuations in unemployment are often removed from published data in order to isolate and more easily discern longer-term business cycles. Figure 1 shows recent monthly unemployment levels in Iowa before and after adjusting for seasonal variation. The adjusted series clearly reveals a persistent downward trend in Iowa’s unemployment since 2011. The unadjusted series shows that, somewhat independently of the longer-term trend, the number of unemployed workers in Iowa follows a fairly consistent seasonal pattern. In a typical Iowa year, unemployment peaks in January, declines from February through May, rises again in June, and shrinks through the summer until reaching a low point in October.

Industrial structure and climate both contribute to seasonal variations in regional employment levels. Some industries, such as construction and tourism, are highly sensitive to seasonal demand. Other industries, such as manufacturing and finance, are less so. Figure 2 contrasts recent seasonal employment patterns in selected U.S. industries. The chart line for each industry shows employment throughout a typical year as a percentage of the general trend levels during 2010–2014. Distinct differences in seasonal patterns are apparent by sector. Manufacturing demonstrates only a moderate seasonal employment boost from June through September. Trade, transportation, and utilities industries reach peak employment levels in December. Employment in the government sector, which includes public school employees, typically falls sharply in July and August of each year. Construction employment typically begins to rise in March, peaks in August, and declines after October of each year. Leisure and hospitality industries enjoy a shorter peak employment period, running from June through August.

Iowa’s climate and industrial characteristics lead to comparatively high seasonal employment variability relative to many other states. Figure 3 illustrates a measure of recent seasonal variation in unemployment rates by state from 2011 to 2014. The map shows the average gap between typical peak and trough unemployment rates during the course of a given year. Iowa ranked sixth among states in its degree of seasonal unemployment variation. North Dakota had the highest seasonal variation in unemployment rates, while California had the lowest.

Iowa’s unemployment rates consistently rank among the lowest in the nation, suggesting there is very little slack in the state’s labor force. Iowa’s annual unemployment rate ranked ninth lowest among the states in 2014, seventh in 2013, fourth in 2012, and sixth in 2011. Still, the state’s comparatively high degree of seasonal variability might offer opportunities for employers to develop worker attraction or retention strategies that align with the seasonal demands of other industries.

Iowa Shows Seasonal Patterns in Unemployment by Liesl Eathington

Figure 1. Recent monthly unemployment estimates for Iowa (U.S. Bureau of Labor Statistics)
Figure 2. Typical seasonal variation around trend employment levels
(Iowa State University estimates derived from U.S. Bureau of Labor Statistics data)

Figure 3. States by level of seasonal variation in unemployment levels
(Iowa State University estimates from U.S. Bureau of Labor Statistics data)
The one-woman, Humboldt, Iowa, company started by Deb Davis swelled to employing 37 people. And, with help from CIRAS and the Iowa Small Business Development Center (SBDC), it moved from a 2,500-square-foot facility to a new 30,000-square-foot manufacturing plant.

Sisters’ remarkable growth was recognized earlier this year (photo at the Iowa State Capitol above) when Davis was named the SBDC’s Neal Smith Entrepreneur of the Year. The award, which honors an Iowan who has been in business at least three years and seen significant assistance from an Iowa SBDC, caps a long career for Davis involving food and nutrition at hospitals and nursing homes.

“It proved to me that staying at work until 1 a.m. to finish an order or taking a customer call—all that hard work pays off,” Davis said.

The SBDC helped Davis find financing, create a business plan, and perform cash flow analyses and market research. The SBDC also connected Davis with Iowa State University interns.

Officials from the SBDC then sent Davis to CIRAS, which connected her to food safety training opportunities at ISU Extension and Outreach in Webster County and in Ames. CIRAS also helped Davis make key decisions for her company, such as the type of license to obtain for the new facility and determining its layout and process flow.

“Small business owners don’t have to know everything,” said Brenda Martin, CIRAS account manager, “but it helps to know about the bodies of knowledge out there you can utilize.”

“You can’t do it by yourself, and there are some good resources out there to help you.”

— Deb Davis

Davis expects her customer base to reach 1,800 by July. The company says its current “consumers are made up of anyone... who eats” and that a high percentage of its business comes from the elderly and families. The company is exploring new markets, such as selling to county jails. If things pan out, it will mean another $80,000 per month in sales—and the need to hire another six employees.

For more information on food safety training opportunities, contact Brenda Martin at bkmartin@iastate.edu or 515-570-5282.
CIRAS Consulting Services Help Companies Make Supplier Decisions

Sometimes you just need to be sure.

Consider Standard Bearings. The company, headquartered in Des Moines, serves several hundred original equipment manufacturers, partly by helping them find alternate suppliers in Europe and Asia when economics dictate. In 2005, one of Standard Bearings’ customers decided that, because of a shortage of labor (among other issues), it was time to consider outsourcing one of its parts. But the customer wanted to ensure that any Chinese-made parts would be as good as or better than what the company had produced in house.

In the United States and many other countries, manufacturers follow “standards” set by the American Society for Testing and Materials (ASTM). Founded in 1898, ASTM International oversees agreed-upon formulas for how more than 12,000 items should be made. But the agreement isn’t universal.

Sometimes, “overseas suppliers are working off of a different set of standards than American manufacturers are used to,” said Paul Berge, industrial specialist for the materials arm of CIRAS.

That can mean problems if foreign suppliers follow different production rules than American companies expect. “If the substitution isn’t quite correct, it could potentially lead to performance or manufacturing issues,” Berge said.

CIRAS can help.

John Munson, vice president of sales at Standard Bearings, sought aid from CIRAS via Berge’s group, formerly known as the Institute for Physical Research and Technology’s Company Assistance program. CIRAS reviewed the U.S. and Chinese standards and enlisted help from a Chinese-speaking Iowa State professor with metallurgical knowledge. CIRAS eventually helped Standard Bearings determine that parts from the overseas supplier would meet all necessary requirements.

“That project was and still is a very successful endeavor for Standard Bearings,” Munson said. He estimated that the relationship has been worth $5 million to Standard Bearings over the past decade, and the customer also saved several million dollars. Standard Bearings now works with CIRAS regularly.

CIRAS does not provide routine testing services, but it does help companies face challenges with their products. Problems may appear up front, when working with a new supplier, or after a product is supplied, via an increase in broken or defective parts. CIRAS metallurgists can analyze materials to pinpoint what went wrong.

Evolution Power Tools, based in Davenport, turned to CIRAS this year to deal with customer complaints about its steel-cutting circular saw blades. Old and new blades were submitted for testing along with some that had failed.

Blake Williams, North American sales director for Evolution Power Tools, said he expects the coming tests to be “very valuable” because “these results will be unbiased.” That will prompt a productive conversation between Evolution and its supplier in Japan.

For more information on materials services, contact Paul Berge at pmberge@iastate.edu or 515-294-5972.

BioCentury Research Farm (BCRF)

The BCRF is the first-in-the-nation integrated research and demonstration facility dedicated to biomass production and processing. With vast capabilities, the BCRF accelerates innovation in biobased fuels, chemicals, and products.

Example Uses
- Plant breeding and genomics studies
- Crop selection and development research
- Comparative biomass cropping systems
- Soil conservation and nutrient management studies
- Biomass storage research trials
- Studies of the biomass supply chain
- Biomass density studies
- Thermochemical processing for biobased fuels and chemicals
- Research on fermentation production of fuels, industrial chemicals, and other products
- Enzyme development to improve ethanol production co-products
- Algae production and processing R&D
- Biopolymer processing and development research

For more information, contact
Darren Jarboe, Program Manager
1041 Food Sciences Building
Iowa State University
Ames, Iowa 50011
bcrf@iastate.edu
515-294-2342
www.biocenturyresearchfarm.iastate.edu
Government Contracting... with Iowa State?

The first thing that many people think of when they hear “government contracting” is working with the U.S. Department of Defense or federal government. But the contracting world goes far beyond that. Iowa State University is an important entity to consider when pondering potential government markets. The university regularly purchases items for administrative, academic, research, and individual student needs—items ranging from farm equipment to security technology products to food services and apparel. Iowa State also purchases on behalf of the Iowa Braille School in Vinton, Iowa School for the Deaf in Council Bluffs, and Iowa Public Radio.

Keep several things in mind when developing your strategy to do business with Iowa State:

- Items greater than $25,000 will be purchased competitively unless legitimate sole source or extenuating emergency circumstances exist.
- Items less than $25,000 will be procured at the discretion of the purchasing agent. What does this mean? Opportunity! Where appropriate, the purchasing agent will seek competitive bids. Make sure that the purchasing agent in your commodity area knows who you are.
- For items less than $4,900, campus departments have buying authority via a purchasing credit card. This means you also need to market directly to any departments on campus that have a need for your product or service if it falls under this threshold.

To make yourself known, complete the Online Vendor Registration, which can be accessed at www.purchasing.iastate.edu/vendors/process.html through the Iowa State procurement website.

For more information, contact Julie Fagle at 319-310-8612 or jafagle@iastate.edu.

Inteconnex uses CIRAS to Keep Tabs on Government Business Opportunities

Marc Meyer has been selling his company’s products and services to government entities for 15 years. But work with CIRAS has helped the Cedar Rapids-based Inteconnex sell more.

Inteconnex, which started as an information technology and network infrastructure company, now mainly provides physical security solutions such as cameras and door security systems. The company, which also has offices in Des Moines, Omaha, and the Denver/Fort Collins area of Colorado, does about half of its business with school districts and colleges, including Iowa State University.

Meyer, the president and owner of Inteconnex, had his first contact with CIRAS a few years ago, when he sought advice on marketing to the government.

“I think what they do is very helpful for all companies in the industry in terms of working with the federal government, as well as state and local governments,” he said. “They’ve really helped us navigate the government procurement process.”

Meyer said his company’s business has doubled in the past four years and the number of employees has tripled. Last year, he joined the CIRAS Advisory Council.

CIRAS “definitely had a big part in helping us reach those business goals,” he said.

Each week CIRAS e-mails Inteconnex a list of government contracting opportunities. Meyer has attended CIRAS-organized training sessions and meets every other month or so with a CIRAS representative “to help me out with various things related to … what information the government needs or a school needs.”

Among other things, CIRAS has helped Inteconnex understand government contract registration, federal and state purchasing requirements, and what it takes to be successful from pre- to post-award.

CIRAS also has advised Meyer as he works to obtain a listing on the U.S. General Services Administration (GSA) schedule. The GSA essentially is a catalog—a list of vendors who have negotiated pricing in advance and can be awarded contracts without going out to bid, since costs are predetermined.

Getting on the GSA schedule is a future business goal, Meyer said.

CIRAS offers “everything as far as maintaining your government contract status, and that’s very helpful because it changes almost every year,” Meyer said. “They are very knowledgeable. CIRAS has really been helpful in providing us the advice and counsel to grow that part of the business.”
Iowa Sustainable Business Forum Launches Its First of Four Kickoff Sessions

Organizers of Iowa’s first-ever forum for businesses seeking help with environmental and financial sustainability say they plan to hold three more roundtable events by the end of this year, as the new group continues to get up and running around the state.

The Iowa Sustainable Business Forum (ISBF), a nonprofit organization formed at the end of 2014 by CIRAS and four Iowa corporations, is intended to be a clearinghouse for information on a host of environmental, social, and financial topics that fit under the heading of “sustainability.”

Doc Wilson, branch manager at Cummins Central Power in Des Moines and a founding ISBF board member, acknowledged earlier this year that sustainability is a term that gets “a little vague in substance” when people new to the issue first attempt to practice it. Companies have different focuses, different areas of expertise, and different ideas of what “sustainability” involves.

“If I go looking for best practices, I can’t find them,” Wilson said.

The new organization seeks to fill that void by giving businesses a place where they can share tips and seek answers to vexing questions in relative safety. Attendees at the first event—an “ISBF Kickoff Sustainability Roundtable” in Cedar Rapids in June—were asked to be candid both in sharing successes and asking advice. Discretion was enforced by requiring the 23 people who attended to immediately sign nondisclosure statements.

Sharing is an essential ingredient of the ISBF, according to CIRAS program director Mike O’Donnell.

“The real purpose of this isn’t to bring some sort of expert in to teach people,” O’Donnell said. “The goal is that they learn together.”

Participants in June spent roughly an hour discussing the main issues they encounter in their search for increased sustainability. After that, four breakout groups were formed to delve more deeply into the issues that participants raised.

O’Donnell said any questions not handled during those breakout sessions would be addressed later—via members-only webinars and other advanced training opportunities.

The goal is to spend as much time as possible in ISBF events just listening and talking.

Toward that end, ISBF leaders mandate that the lead attendee at its events from each company be actively working in sustainability—not sales. “This is not (initial) training,” O’Donnell said. “This is for people who are doing this every day and looking to take things to that next level.”

For more information, contact Mike O’Donnell at modonnll@iastate.edu or 515-294-1588.

THE PRICE OF JOINING THE ISBF

| Founding Membership: $5,000 (includes seat on the board) |
| All other levels: |
| • $250 for less than 100 employees |
| • $500 for less than 1,000 employees |
| • $750 for less than 5,000 employees |
| • $1,000 for less than 10,000 employees |
| • $2,000 for greater than or equal to 10,000 employees |

Metalcraft Inc.
Overview: Metalcraft is an innovative manufacturer of custom tags for identifying, tracking, and controlling property, products, and processes. These customized products may include consecutive numbers, constant copy, or variable data using barcode and/or RFID technologies. Metalcraft is known for durable tags, industry expertise, and an exceptional customer experience.
Location: Mason City
Founded: 1950
Employees: 80+
Website: www.idplate.com

Overview: The company designs and manufactures the Pilot Rock brand of park, street, and camp site equipment, including park benches, picnic tables, trash and recycling receptacles, bike racks, charcoal grills, campfire rings, and a complete line of ADA-compliant wheelchair accessible products.
Location: Cherokee
Founded: 1959
Employees: 65
Website: www.pilotrock.com

Winnebago Industries
Overview: Winnebago Industries Inc. is a leading manufacturer of recreational vehicles. The company builds quality motorhomes, travel trailers, fifth wheel products, and transit buses.
Location: Headquartered in Forest City, with satellite locations in Charles City, Lake Mills, and a soon-to-be third satellite location in Waverly.
Founded: 1958
Employees: Around 2,800 people nationally. The Forest City location employs 2,400.
Website: http://winnebagoind.com

Look closer at Iowa’s rolling landscape and you may be surprised to discover what is made here—everything from refuse trucks and powered machinery to buckets and pastries. When you buy products manufactured in Iowa, more money stays in our local communities.
CIRAS Webinar Helps You Refresh and Remember the Rules of Government Contracting

Did your business stick its toe into government contracting only to find the waters confusing and cold? Have once-promising efforts stalled?

CIRAS has a monthly webinar for people who need help navigating around bumps in the government contracting road.

“GovCon 101: R3 Refreshers, Reminders and Re-Do’s for Government Contracting” will be led by Beth White, a CIRAS government contracting specialist. The next session will be from 8:30 a.m. to 9:30 a.m. on August 25.

The topic stems from recurring conversations CIRAS representatives have had with multiple companies that occasionally forget some of the steps they could or should be taking in their government contracting journey.

“There is so much to know,” White said. “The sessions were meant to be a way for companies to know that they always have this ‘refresher’ course available.”

The webinar touches on registration reminders, business ownership preference reminders, and a basic tutorial for navigating some government websites, as well as offering information to jump-start research and marketing.

White said the webinar is best suited for companies that have already pursued government contracts, but it also provides a broad overview of concepts that companies new to the market may find helpful.

Sessions are planned the fourth Tuesday of each month. Register at https://attendee.gotowebinar.com/rt/6482608770448517121.

UPCOMING EVENTS

- Market Research Techniques for GovCon: Hands-on Tutorial
  August 18, 2015 • 9:00 a.m.–10:30 a.m.
  Clinton

- Internet Marketing Strategy Boot Camp
  August 25–27, 2015
  Cedar Rapids

- Video Marketing Boot Camp
  August 31–September 1, 2015
  Cedar Rapids

- Fifth Annual Corridor Procurement Conference
  September 17 • 8:00 a.m.–12 p.m.
  Cedar Rapids

- Learn Before You Leap: Business Considerations for GovCon
  September 24, 2015 • 9:00 a.m.–10:00 a.m.
  Ottumwa

- Iowa’s Advanced Manufacturing Conference
  September 30, 2015 • 9:00 a.m. – 3:00 p.m.
  Altoona

- BizTalk Mastermind Group: How “Debriefings” Help with Your Government Marketing Efforts
  October 1, 2015 • 7:00 a.m.–8:00 a.m.
  Webinar

- Reshoring Mini-Event: Should You Be Manufacturing or Sourcing Closer to Home?
  October 13, 2015 • 5:30 p.m.–8:00 p.m.
  Cedar Rapids

For more information, go to www.ciras.iastate.edu/events.asp.

STAFF NEWS

Joy Donald—Strategy Project Manager

Joy Donald joined CIRAS on June 1, working out of the Iowa City area. She provides strategy development and implementation support across the state of Iowa to organizations that seek to improve their overall performance. Her work includes helping leadership teams understand customer needs, develop a strategic plan to meet those needs, and engage employees to effectively implement the plan.

Donald previously was an independent strategy consultant in higher education for three years and spent eight years in management at Pearson in Iowa City, leading large-scale assessment programs with the state Department of Education. She also served as the operations manager for Pearson’s Project Management and Strategy Deployment offices. Donald has a bachelor’s degree in psychology from California State University-Bakersfield and an MBA in Strategy and Organization Development from the University of Iowa.
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**CIRAS PARTNERS**

**Center for Crops Utilization**
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**Center for Nondestructive Evaluation**
- Iowa State University

**College of Engineering**
- Community and Economic Development

**Department of Environmental Health and Safety**
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**Iowa Central Community College**
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**Iowa Sustainable Business Forum**
- Iowa State University

**North Iowa Area Community College**
- Iowa State University

**Northeast Iowa Community College**
- Iowa State University

**Quad Cities Manufacturing Hub**
- Iowa State University

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**CONTACT INFORMATION**

Since 1963, we have delivered proven services to enhance the performance of industry. Our approach—Engage. Educate. Embed.—creates specific solutions that allow each business and its community to prosper and grow. Coupled with a satisfaction guarantee, our typical client has achieved a 200% ROI. Clients have reported an economic impact of more than $1.8 billion over the past five years.

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CIRAS has worked with many companies on innovation. We've found that companies have different strengths and weaknesses depending on their industry, competitive environment, and company structure. Individuals at these companies commonly believe their innovation system has gaps. But often, those gaps are not agreed upon by those with the power to change the system.

CIRAS subscribes to a concept called the Innovation Cycle, in which innovation is broken into four phases: Definition, Discovery, Development, and Delivery. To facilitate conversation within each phase, CIRAS developed a small set of targeted questions based on best practices. We believe they can help your team identify areas for improvement within your innovation system.

You or a CIRAS innovation team member can facilitate a process using the questionnaire on the back of the CIRAS Innovation Cycle brochure (http://ow.ly/LYbEO). Start by having key stakeholders score the company on each question using a 1–5 scale. Then bring the group together and discuss each question, paying close attention to items with consistently low scores AND large discrepancies. Try to have the group come to a consensus on a number.

But the key is not the numbers themselves—it is how the process makes people think and communicate about the question. We have found that a small amount of discussion about these issues helps companies discover where their opportunities for improvement lie.

The process can help identify how individuals, layers, or departments within an organization are aligned or not aligned with perceived strengths or weaknesses. As an example, this tool asks if “New concepts are tested with customers via prototypes or pilots.” If most departments within an organization rate this high but Marketing rates it low, then follow-up is needed. If your functional employees rate something low, but leadership rates it high, then there is likely an issue. The goal should be understanding sources of variation and taking steps to improve performance.

If you are interested in learning more about the CIRAS Innovation Cycle or how to facilitate the questionnaire process, please contact Paul Gormley at gormley@iastate.edu or 319-721-5357.

To participate in the innovation discussion, join our LinkedIn group at linkd.in/12tVLy1.