

THE ILLINOIS MANUFACTURER

SECOND QUARTER 2018



PICTURED: FRANK VANSICKLE, LITANIA SPORTS GROUP [23 YEARS]



Where can I get a customized **natural gas** plan that's right for my manufacturing facility?

When you're looking for natural gas purchasing options, energy market expertise and all the choices you need to customize a plan that's right for your manufacturing facility, there is no question that **Constellation, the Illinois Manufacturers' Association's endorsed energy supplier, is the right choice.** Just ask two-thirds of the Fortune 100 companies and more than 2.2 million customers nationwide who have helped make Constellation **America's energy choice®.**

To learn more about your energy purchasing options, visit constellation.com/IMA.



© 2018 Constellation Energy Resources, LLC. The offerings described herein are those of Constellation NewEnergy-Gas Division, LLC or Constellation NewEnergy, Inc., affiliates of each other and ultimate subsidiaries of Exelon Corporation. Brand names and product names are trademarks or service marks of their respective holders. All rights reserved. Errors and omissions excepted.

Constellation is the endorsed energy supplier to this association, which receives compensation for its promotional and marketing efforts from Constellation.

TABLE OF CONTENTS

SECOND QUARTER 2018

MISSION STATEMENT

The Illinois Manufacturers' Association is the only statewide association dedicated exclusively to advocating, promoting and strengthening the manufacturing sector in Illinois. The IMA is the oldest and largest state manufacturing trade association in the United States, representing nearly 4,000 companies and facilities.

CHAIRMAN

Rick Delawder

PRESIDENT

Gregory W. Baise

EDITOR

Anastasia Lowenthal

The Illinois Manufacturer is published quarterly by the Illinois Manufacturers' Association. All rights reserved. The title, *The Illinois Manufacturer*, is a trademark of the Illinois Manufacturers' Association.

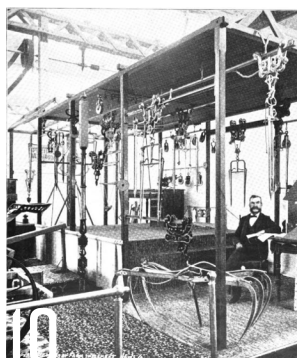
Copyright 2018© Illinois Manufacturers' Association. Reproduction of all or any part is prohibited except by written permission of the publisher. Published articles do not necessarily reflect the views of the magazine or its publisher. Information in this publication should not be substituted for advice of competent legal counsel.

For address changes and adjustments, write to *The Illinois Manufacturer*. Presort standard postage paid at Bloomington, IL. Postmaster: Send address changes to *The Illinois Manufacturer*, 220 East Adams Street, Springfield, IL 62701. Telephone: (217) 522-1240.

If you have any questions, please contact Anastasia Lowenthal, Editor and Manager of Publications at alowenthal@ima-net.org, or (217) 718-4207.

Share Your Company News with the IMA . . .

News information, press releases and articles may be sent to Anastasia Lowenthal, Editor and Manager of Publications, Illinois Manufacturers' Association (IMA), 220 East Adams Street, Springfield, IL 62701, or alowenthal@ima-net.org



LITANIA SPORTS GROUP
CELEBRATES GILL'S 100TH AND
PORTER'S 150TH ANNIVERSARY



LEADING THE WAY FOR
FUTURE MANUFACTURERS

FEATURES

BY ANASTASIA LOWENTHAL

FROM THE IMA

The "T" Word.....	4
Manufacturers Hiring.....	6
Are Manufacturers in a League of Their Own?.....	14

ENERGY & ENVIRONMENT

A Smarter Way to Purchase Natural Gas: Dollar-Cost Averaging.....	7
The Biggest Industrial Energy Wasters, And What to Do About Them.....	14

HR & BUSINESS DEVELOPMENT

Change-in-Control Severance Plans in Privately Held Companies.....	8
Employee Involvement is Key to Improving Productivity.....	15
Apprentices: Developing the Workforce of the Future.....	22

GOVERNMENT REGULATION & LEGISLATION

Defend Trade Secrets Act: Use it for Maximum Advantage.....	12
What You Need to Know About Using Your Employee's Biometric Information.....	20
International Tax Provisions in Tax Reform Legislation.....	26

INNOVATION, TECHNOLOGY, & SECURITY

I, Cobot: The Rise of Industrial Robotics and the Need for Employee Safeguarding.....	24
--	----

RECOGNITIONS

Member News.....	28
New IMA Members.....	30

The Illinois Manufacturer is underwritten by Constellation – an Exelon Company

THE "T" WORD

GREGORY W. BAISE, CEO



As I write this, the Primary Election battles are recently completed. Most likely more than a \$100 million was spent by candidates for governor and the other major offices on the ballot. Yes, you read that correctly: **\$100 million.**

As previewed in the Primary, the fight for the governorship will be about just one issue. Sure, you'll hear a great deal about extraneous issues, such as J.B. Pritzker's relationship with a certain currently imprisoned governor. Important, yes, but not a disqualifying fact. If every politician who rubbed elbows with someone who ended up as a guest of the government in prison was disqualified, not many would ever be on the ballot.

Our current governor, Bruce Rauner, will be roundly panned for not getting a budget passed for the first two and half years of his term. True, damage was done to the state and many important programs were put at risk with that failure. But let's remember this Civics 101 lesson: the Democratically-steered General Assembly had a controlling hand in that failure and could have kept passing one budget after another. They did not.

It is important to note that Pritzker failed to capture a majority of his party's primary vote (ending up with 45 percent) and Rauner squeaked by a little known, ultra-conservative squawking state representative by just 3 percent. Clearly, neither standard bearer is currently warmly loved by their party.

J.B. (doesn't that make him sound like one of us) spent over \$72 million of his billion-dollar fortune buying every political endorsement and the support of Big Labor to roll over his opponents.

Rauner took a couple of misguided statements by his opponent about the Speaker of the House and made her out to look like Mike Madigan's favorite dinner partner in Springfield. Unfair? Bah. Nothing is fair in politics, and as Finley Peter Dunne said, *"politics ain't beanbag."* (Go ahead and Google that guy!)

Illinois is in pathetic shape. You have read my views on this for years.

Our pension monster is swallowing us alive. Our state's balance sheet grows worse and worse each year as current assets are being taken to keep us afloat.

A tax hike was implemented without one major reform implemented to change the direction of the state. Still, it all comes down to the issue: TAXES!

At the IMA, we will want to know where the candidates stand on important core issues like workers' compensation, pension and tort reforms. What kind of plans does each candidate have to re-vamp the Illinois economy? How can they make Illinois competitive with not only our Midwestern neighbors but the rest of the nation as well?

Our current governor has outlined where he stands on these important issues. He has articulated his desire to reform our Workers Comp system with important changes to the medical and indemnity side of the issue. Speaker Mike Madigan and his friends from both Big Labor and the trial bar fought him all the way.

Rauner's vision to reform our pension system has also been fought all the way by the same set of allies. Those who oppose pension reform seem more than willing to watch the state teeter frightfully close to insolvency by supporting benefits that cannot be sustained.

Rauner vetoed the last year's tax hike because it did not contain one reform that the IMA and others in the business community advocated.

And what have we heard from J.B. on any of these crucial issues after \$72 million worth of political advocacy? Crickets. It's unfathomable to me that Pritzker can avoid such a pressing issue time and again.

What we have heard is this: J.B. can't hardly wait to raise your taxes. He wants to change the state's constitution from prohibiting a graduated income tax instead of the current flat tax system. In other words, it's okay to pursue a constitutional amendment to raise taxes, but so impossible he couldn't even discuss a plan when it comes to avoiding bankrupting the state from a pension system that's run amok.

know...we need the money, and he wants to treat the symptom, not the disease. With all signs pointing to record spending in the fall, we hope candidate Pritzker can dedicate some time to outlining a plan for pension reform and workers' compensation that is a bit more than talking points to get through an election. Sigh.

Folks, all the other issues that you will hear about for the next six months will just be a smoke screen. This election is about taxes, taxes and more taxes. We have one candidate who can't wait to raise them and one candidate who has already vetoed one tax hike.

The IMA will continue to update you on all the issues of day as this year progresses. But remember, if you want more taxes piled on top of an income tax that went into effect in January, you have your man who is ready to do it. ♦



SALE OF COMPANY

**MERGER & ACQUISITION
ADVISORY**

THERMFLO®

INTEREST RATE PROTECTION

DERIVATIVES



SALE OF COMPANY

**MERGER & ACQUISITION
ADVISORY**



ADMINISTRATIVE AGENT AND
SOLE ARRANGER

LOAN SYNDICATIONS



ADMINISTRATIVE AGENT AND
SOLE ARRANGER

LOAN SYNDICATIONS



SALE OF COMPANY

**MERGER & ACQUISITION
ADVISORY**



ADMINISTRATIVE AGENT AND
SOLE ARRANGER

LOAN SYNDICATIONS



SALE OF COMPANY

**MERGER & ACQUISITION
ADVISORY**



INTEREST RATE PROTECTION

DERIVATIVES

No one knows their business better than our customers. They also know they need to be responsive to the ever-changing industrial sector. MB Capital Markets brings that same responsiveness to our customers with strategic advice and solutions that will help keep their business out front.

Call us at **312-738-2499** or visit **mbcapitalmarkets.com** to learn what we can deliver for you.

MB Financial Bank



Commercial Banking ■ Capital Markets ■ Small Business ■ Wealth Management ■ Personal Banking

Member FDIC

MANUFACTURERS HIRING...

MARK DENZLER, COO



America's economy is humming. In the latest Labor Department employment report, more than 313,000 jobs were added in February. In 2018, the economy has added an average of 276,000 jobs — a big jump from the 182,000 added on average last year.

We're in the midst of a nine-year economic expansion following the Great Recession with ongoing debate about how close the U.S. economy is to full capacity. America's 4.1 percent jobless rate is low and the number of adults not in the labor force fell by 653,000 according to the USDOL. The number of people working during their prime years is at the highest level since 2008 and wages grew at an average of 2.9 percent last year.

Our economy continues to expand, and manufacturing is an integral part of this economic success, adding nearly a quarter million jobs over the last twelve months including 31,000 in the last month. More than 12.6 million Americans are working in manufacturing jobs paying more than \$84,000 in wages and benefits.

While the economy is rosy, the tightening labor market is exacerbating another challenge for manufacturers who were already struggling to bridge the skills gap and develop a pipeline of qualified workers. Over the next decade, American manufacturers will need to fill a total of 3.5 million manufacturing jobs, and an alarming 2 million of those are expected to go unfilled due to the skills gap according to Deloitte and NAM's Manufacturing Institute. Eighty percent of manufacturers report a moderate or serious shortage of qualified applications for skilled and highly-skilled production jobs.

In Illinois, nearly half of the current 570,000 workers will leave the workforce over the next decade as baby boomers age, meaning that in-state manufacturers will need to find 20,000 production workers and 3,000 engineers every year just to remain level. It's an immense challenge and one that the IMA's Education Foundation is addressing head on with statewide manufacturing roundtables and an ambitious legislative agenda in Springfield that is designed to meet some of these challenges.

Over the past several years, the number of graduates in STEM (Science, Technology, Engineering and Mathematics) and Vocational Education disciplines being produced by Illinois colleges and universities has greatly declined. One of the major reasons for the decline in graduates is due to a lack of qualified educators in Illinois schools and universities that focus on these studies. The lack of qualified graduates has brought added pressure for school districts and community colleges to rely on adjunct faculty that may know the subject matter but have a lack of knowledge in how best to present the content to students. Illinois needs vocational education teachers if we want to grow and expand programs in high schools and community colleges across the state.

Recognizing the need to produce more industry teachers, the IMA Education Foundation offered two bills dubbed the Grow Your Own STEM Teacher initiative that waives tuition, fees, and on-campus housing costs for students who attend a public university if the student studies STEM or vocational studies and agrees to teach at least three years at an Illinois high school or at least five years at an Illinois public college following graduation.

It acknowledges Illinois' need for a different and bold approach to ensure that there are an adequate number of qualified vocational education teachers in the state. Illinois needs to invest in building a pipeline of qualified workers.

Many companies are looking at the use of apprenticeships. The IMA and German-American Chamber of Commerce are leading the Industry Consortium for Advanced Technical Training (ICATT) program in Illinois. It is the leading program in the Midwest for high-tech manufacturing and only program fully benchmarked on international industry standards using the German Dual Education System that combines company-specific knowledge, theory, and hands-on learning through apprenticeships.

To encourage apprenticeships, the IMA is advocating for a tax credit for educational expenses incurred by employers on behalf of apprentices. Additionally, the IMA is working with the State Board of Education, K-12 schools, and other stakeholders on legislation that will allow students in the 10th grade (age 16) to participate in registered apprenticeship programs. Students could engage in dual-credit programs earlier in their high school career and gain valuable experience and knowledge about manufacturing careers.

Local school districts and community colleges should be able to access the Industrial Development Assistance Law and receive grants for the acquisition of land, construction of facilities, or purchase of equipment dedicated solely to the instruction of manufacturing occupations. Students need to train on modern equipment that is used on today's shop floors.

Every single day, I talk to manufacturing leaders who struggle to find workers in a tightening labor market. We need to do a better job of educating parents, teachers, counselors, and students about great careers in manufacturing. Every possible pipeline of workers including returning veterans, dislocated workers, and graduating students must be part of the solution. Our future depends on it. ♦

A SMARTER WAY TO PURCHASE NATURAL GAS: DOLLAR-COST AVERAGING

CONSTELLATION



When fueling a car, most people fall into one of two categories: You either pump until the tank is full, or you elect to buy just a portion of gas — say \$5 worth — at a time.

This type of purchasing decision is also available to companies that buy natural gas. You could, for example, buy natural gas to fuel your business for two full years at a single point in time, all at once. Alternatively, you could make purchases in small increments, similar to the person who buys a few dollars' worth of gas each time. Using this method, you could buy natural gas in smaller, fixed amounts over time — but not simply to save a few bucks here and there. Companies that use this method can better avoid price fluctuations.

To revisit our original scenario: Is it better to buy 10 gallons of gas for your car all at once? Or, would you rather buy five gallons today for \$5, and then another five gallons next week, when the rate could be slightly lower? In this scenario, the savings of the latter approach might be modest. But when you're talking about the amount of natural gas it takes to fuel an entire company, the benefit can be significant.

A New Way to Think About Purchasing

In this simplified scenario, we're talking about dollar-cost averaging (DCA). DCA, a

common investment strategy, allows you to buy a fixed dollar amount of an investment on a regular schedule, regardless of the share price. When prices are low, that fixed dollar amount buys you more shares; when prices are high, it buys less. Rather than investing a lump sum, you invest over time — which can help reduce long-term risk.

This strategy can also be used to purchase natural gas, one of the biggest expenses for just about every company.

The price of natural gas goes up and down. It does so regularly, quickly and sometimes significantly. In 2016, the average monthly price for commercial consumers per thousand cubic feet fluctuated in the following manner:

- January-February: Up 1%
- February-March: Up 3%
- March-April: Down about 2%
- April-May: Up about 6%
- May-June: Up about 5%
- June-July: Up about 5%
- July-August: Up about 2%
- August-September: Up less than 1%
- September-October: Down 9%
- October-November: Down 4%
- November-December: Down about 5%

What are the implications of this? If you went to the gas pump when prices were highest and bought all your gas for the

coming year, you'd have spent 10 percent more than if you'd purchased using the dollar-cost averaging approach.

Just Like Investing

The way you purchase natural gas can — and almost certainly should — look similar to the way an investor buys stocks, mutual funds and bonds: You go to market regularly with a fixed amount of money to spend. When prices are low, you procure more; when they are high, you procure less.

Slow and steady does more than win the race — it helps reduce the risk of trying to time the market. Yes, it would be great to complete all of your shopping when prices are low. But no one — not even the best investor — can pull this off consistently.

To achieve long-term stability and manage price volatility, the better strategy is to purchase natural gas using that DCA-type approach. With this kind of strategic energy management plan, you can improve budget certainty.

It's easy to see the benefits of dollar-cost averaging, but it's not always easy to implement within your organization. If you have questions about purchasing natural gas from Constellation, the Illinois Manufacturers' Association's endorsed energy supplier, visit www.constellation.com/IMA. ♦

CHANGE-IN-CONTROL SEVERANCE PLANS IN PRIVATELY HELD COMPANIES

THE OVERTURE GROUP

The volume of merger and acquisitions in both the public and private company sectors continues to be very strong and this causes many executives to worry about losing their job. Retention of key employees is often the key to M&A success since losing key employees a year or two before a sale or merger can negatively impact the profitability and value of the company. To retain executives, many companies offer severance benefits to individuals who are terminated because of a change in control (CIC). This provides executives some remuneration if they lose their job. Likewise, we often see the ability of a company to attract executives diminished if their offer of employment does not include a CIC severance benefit. This is often an issue if the private company is closely held and ownership is aging and there is no clear succession plan other than a sale.

Change-in-Control Severance Plans

Change-in-control severance plans are common for large companies, but still underutilized for mid-size private companies. Ownership succession planning in privately held companies as well as the growth in private equity deals has spurred many companies to implement these plans, but in many cases the plans are rushed into place just prior to the deal. Research indicates approximately 90 percent of large companies have change-in-control plans in place. Less than half are in place in mid-size privately held companies.

Severance is typically expressed as a multiple of "pay," with "pay" most often de-

finied as salary and target bonus or sometimes expressed in number of months of pay including base and bonus. Some companies will use a different bonus determination such as an average of recent actual bonuses earned. Many companies will have various tiers of participants with varying severance based upon tier or criticality of position. For larger companies, multiples of 2x-3x pay are common for the highest tier which generally includes the CEO and some or all direct reports. Middle market companies will typically provide 1x to 1.5x multiples of pay for C-suite executives and less for other critical employees.

Pay for performance is changing the severance landscape. High value severance benefits for termination due to poor performance ("pay for failure") or following a change in control are a hot button issue with major institution investors and their advisers. Today, the average tenure of a CEO in larger companies is between five and six years owing to the frequency of performance-based firings, mergers and acquisitions, and private equity buyouts. Thus, the Board will likely need to make critical decisions about the treatment of pay and benefits at the termination of a CEO

or other senior executive whether in company plan provisions (equity, retirement, severance) and employment agreements at hire, or ad hoc at termination. With many privately held companies the CEO may be a key owner or the actual owner. The focus here may be on the tier that reports to the CEO especially if ownership plans are not defined or include a potential sale in the next five to 10 years. Aging ownership or unclear ownership succession plans make executives nervous.

Cash severance payments and acceleration of vesting on incentive awards and retirement plans are common given the risks associated with executive positions. On the other hand, gross up payments on excise taxes at termination following a change in control and executive benefits and perquisites post termination, both of which were once very common in larger companies, are generally no longer offered to new executives.

CEO and executive employment agreements are declining in prevalence as companies seek greater flexibility on initial severance terms and the ability to adjust the terms over time as competitive practices evolve. Rather than simply matching com-



petitive benefits, companies should consider the total walkaway value to executives when determining severance benefits.

Emerging best practices include employing executives “at will” without employment agreements, reducing or phasing out cash severance for termination without cause, reducing cash severance for termination following a change in control, requiring a double trigger for equity acceleration in a change in control, avoiding equity acceleration in the event of a termination without cause, and avoiding the temptation to go beyond plan provisions and boundaries at separation.

We see key trends in the following areas:

- (1) The Overall Structure of CIC Protection
- (2) Cash Severance Provisions
- (3) Equity Vesting Acceleration
- (4) Excise Tax Treatment

Overall Structure of CIC Protection: Shift to CIC Plans

Companies are shifting away from individual CIC agreements and towards CIC Plans. CIC Plans, as opposed to individual agreements, cover multiple executives under one plan. Similar to a general severance plan, the plan terms and conditions are the same for all participants with differentiation of severance multiples based on level. A CIC Plan, instead of individual agreements, ensures consistent application and provides easier administration. Private companies may have one or two individual plans for select executives as part of an employment offer to attract a key executive.

Cash Severance: Decrease in Severance Multiples

A large majority of companies provide cash severance benefits upon a qualified termination following a CIC. The amount of cash severance is typically determined as a multiple of pay, which generally includes both base salary and annual bonus (either target or average of recent payouts). Cash severance multiples are trending down, especially for executives below the CEO level. While 3x multiples remain majority practice for CEOs, 2x and lower multiples are becoming more prevalent for other top executives for publicly held companies. This decrease in severance multiples is a direct result of shareholder pressure against large payouts or what is commonly known as golden parachutes at these larger companies. For privately held companies the severance multiples are 1x to 1.5x for C level executives.

Exercise Tax Treatment: Elimination of Gross-Ups

Federal tax regulations trigger a 20 percent excise tax when CIC benefits exceed a specified threshold. Because the tax can have disparate impacts on executives depending on their past earnings, many companies have provided tax gross-ups to mitigate its impact. However, these provisions have faced tremendous scrutiny and criticism, which has led to a sharp decline in their use. While many companies have been promising to exclude gross-ups from future agreements for several years, some companies are now removing them from

current arrangements. This has accelerated the movement away from gross-up provisions, as they are now present at about only one-third of companies in our survey.

Gross-ups have generally been replaced with a “best net benefit” provision, which is now the most common excise tax treatment. Under a best net benefit provision, an executive will receive the greater of 1) a capped benefit, with the amount reduced just below the threshold for triggering the excise tax, or 2) the full benefit, with the executive personally responsible for paying the excise tax.

Consensus versus Benefit to the Employer

Like any compensation or benefit the cost needs to be weighed against the benefit. First, there is no cost if there is no CIC. The potential costs are as follows:

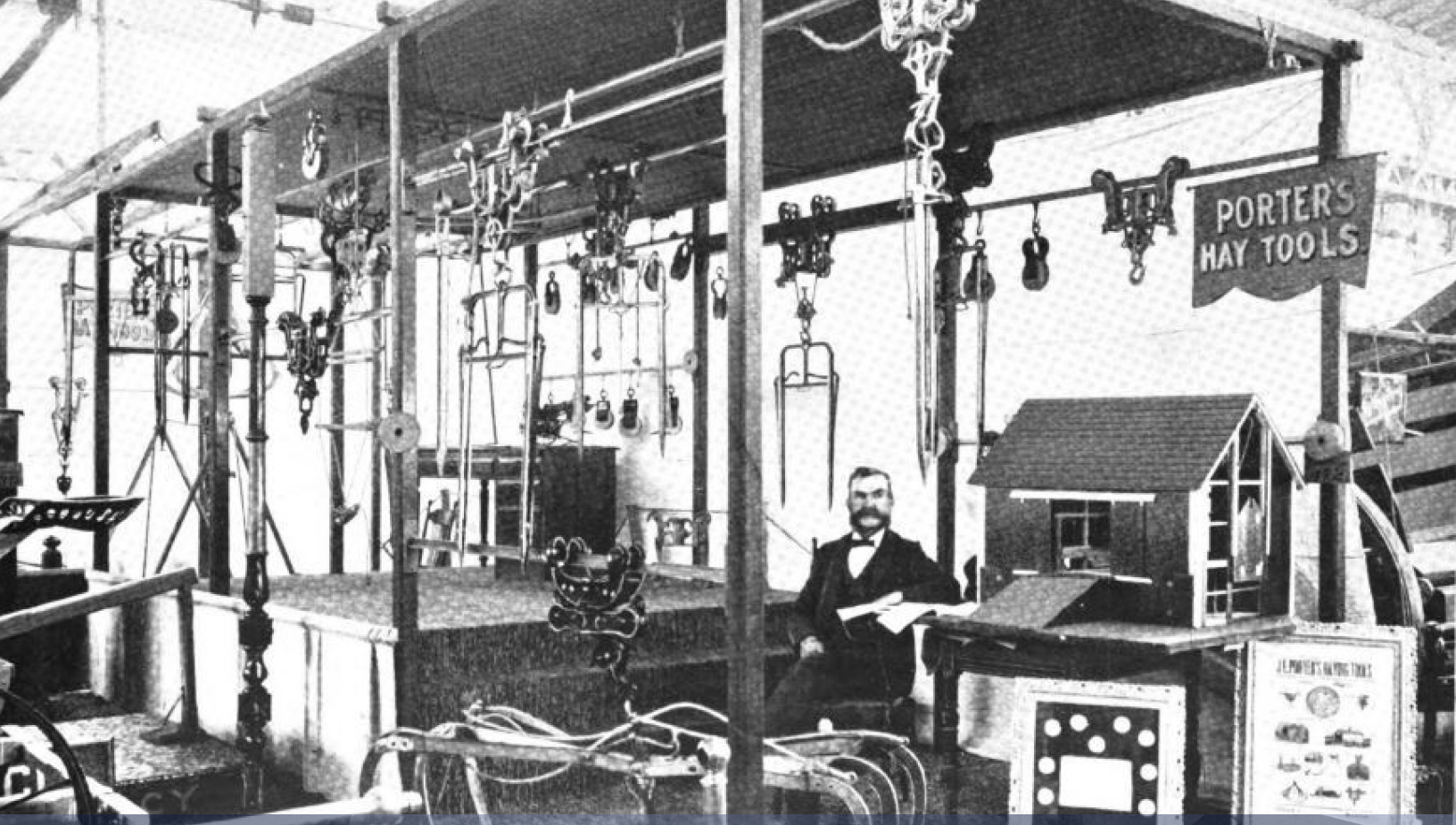
- Loss of key employees because of the insecurity of not having a CIC in place. The cost of turnover impacts both bottom line as well as the value of the company.
- The inability to attract key talent.
- Executives distracted because they worry about loss of their job.

The cost of the unwanted turnover can be significant. WorldatWork places the cost of turnover at two to five times compensation for a CEO or key executive.

Approximately 50 percent of privately held companies offer some long-term incentive (LTIP) or a sale incentive that will benefit the participants upon sale. The potential upside of the LTIP needs to be factored into a whether a CIC benefit should be offered or offered on a reduced basis.

Change-in-control benefits continue to provide several important benefits to both executives and their employer, but it is important to ensure that provisions balance owner and executive concerns. As market practices continue to evolve, it is important to periodically assess your CIC benefits and ensure they remain appropriate and effective. ♦





LITANIA SPORTS GROUP CELEBRATES GILL'S 100TH AND PORTER'S 150TH ANNIVERSARY

It takes more than just intelligence and grit to run a successful business; sometimes it takes a list of prayers and faith that those prayers will be answered. For Litanía Sports Group of Champaign, Illinois, it has taken a lot of intelligence, grit, and faith to make it in the business of manufacturing premier sports equipment.

Litania Sports Group is the umbrella corporation for Gill Athletics and Porter Athletic, which are celebrating 100 years and 150 years, respectively, of manufacturing in Illinois. Their equipment can be found all over the state — from Northwestern University to Olivet, and Millikin University to, of course, University of Illinois at Urbana-Champaign. Recently, Litania Sports Group finished equipping the indoor practice facility for the Boston Celtics.

"We sell quality athletic facility equipment all over the country and even all around the world," said Mary McGrew, Vice President of Human Resources. "It's such an honor to be a part of a company that has such a legacy in this state."

"Our manufacturing principle is based on continuous improvement. We want to continue to push the envelope not only with our productivity but also with the quality of our products," said Dan Shenck, Vice President of Manufacturing. "Everybody here has a voice and you don't have to run up the chain of command to get something done. If you have a solution, you can start working on it immediately."

Today, Litania Sports Group has 150 employees. Welders, fabricators, wood workers, industrial sewers — every skillset is needed to get the job done. When Gill and Porter first began their operations, however, the story was much different.

Gill Athletics began in 1918 when Harry Gill, who coached track and field at University of Illinois and was a decathlete himself, found a need for better equipment for his athletes.

"Gill was really dissatisfied with the equipment they were using at the university, which was the top of the line at the time," Special Events Manager Judy Reynolds explained. "He started building javelins in a shed in his backyard. The javelin was readily accepted by other coaches, so he quickly expanded into other equipment. The Harry Gill Company was the first to offer a full line of track and field equipment."

Fifty years prior, J.E. Porter saw a need for better farming equipment and began manufacturing it for himself.

"Porter was moving hay on his father's farm. It was back-breaking work, and he knew that there had to be a better way," said Judy. "He came up with the Porter hay carrier — a system of pulleys that move the hay up out of the wagon and into the barn."

J.E. Porter continued to design farm equipment and was even featured at the World's fair. Later, he used the same pulley system he'd designed for moving hay in his overhead basketball systems. A part of Porter's original business was to help his clients design and build their barns, and today, Litania Sports Group is keeping with Porter's tradition by helping clients design their gyms 150 years later.

David Hodge, the current CEO of Litania Sports Group, began working for Harry Gill Company in 1990. A pole-vaulter and user of Gill poles himself, David came to Gill as the CFO and was promoted to CEO in 1992 at the age of 29 when an investor purchased the struggling business. The investor offered to sell the company back to David in 10 years. On Litania's website, David writes, "This seemed



From hay carriers and homemade shotputs to CNC printed hurdles and retractable basketball nets, Litanía's Gill Athletics and Porter Athletic have come a long way over the last 100 and 150 years.



Dan Shenck shows off an unfinished javelin.

ridiculous at the time. I remember thinking, 'Who would want to buy the Titanic?'"

But the ship didn't sink. In fact, 10 years later the sales volumes had tripled. The investor sold Gill to David and built a new factory for the company in Champaign, and it's been smooth sailing ever since — David's prayers were answered. That's why he came up with the name "Litanía," a Latin word that translates to "a list of prayers."

"In 2006 when things started going really well, David decided to spice things up and bring Porter in. That's when he created an umbrella name for the two corporations — Litanía Sports Group," Mary said. "We all work towards the same goal: we empower coaches with innovative equipment."

To this day, David still keeps his list of prayers on his wall. But now he spends less time worrying about whether or not his business will stay afloat and more time thinking about how to prepare for the future.

"We are partnering with the ECCA (Early College and Career Academy) for their Education for Employment program. We are paying for the tuition of a couple of high school kids to take dual-credit classes at the community college in the tech industry," Mary said. "During their summers, the students come here and work and get a feel for what we have."

Litanía Sports Group also pays for manufacturing employees to take leadership courses at the local community college. Three employees are currently enrolled at Parkland Community College and are training so that they can move from their front-line manufacturing positions to the next level.

While continually educating employees, Litanía Sports Group has also found ways to use technology to streamline and simplify the daily duties of workers. A CNC tube bending machine was recently purchased and has given a long-time employee not only a more efficient way of doing his job, but a new set of skills as well.

"What used to take more than 40 minutes of manual work now takes about seven minutes. And, we have an employee who's been here for more than 20 years who was able to learn those skills," Dan said. "It allows us to continually reinvent ourselves and our manufacturing. People sometimes think technology displaces the workforce, but in fact, it enhances the workforce."

What also enhances the productivity of a workforce is the company culture — and at Litanía Sports Group, no two days are the same.

"It's casually intense here," Mary said. "It's a casual work environment in that if you need something you don't have to go through all the chains of command to get it. At the same time, we have coaches on the other end wanting their products and they don't take lightly to getting things that are not on time or are not made correctly."

"Things are always changing day to day, season to season," Judy said. "There's always something else that we need to figure out and tackle. I love that I can actually go out and see and touch the equipment that I'll end up seeing on TV or in a facility."

And while tackling those new problems that arise, it's always best to turn toward the future with a list of prayers in mind.

Please join the IMA in congratulating Litanía Sports Group on celebrating the 100th anniversary of Gill Athletics and the 150th anniversary of Porter Athletic this year! ♦

DEFEND TRADE SECRETS ACT: USE IT FOR MAXIMUM ADVANTAGE

CLARK HILL PLC



Every Illinois manufacturer has hard-earned and valuable trade secrets. A strong human resource function is a key element in make sure that they are protected. Through employee non-disclosure agreements and various employment handbook provisions, manufacturers can attempt to keep their trade secrets for their own use and benefit. Beyond and in combination with those tools, the Federal Defend Trade Secrets Act can help to protect those trade secrets from being stolen. But, such protections do not come automatically. Rather, manufacturers need to understand what information constitutes a trade secret, what conduct by employees and third parties is unlawful, what advantages the Act gives to manufacturers, and what manufacturers can do to maximize the protections of the Act.

Not All Business Information is a Protectable Trade Secret

A trade secret is information that has its own actual or potential economic value because others do not know it and cannot properly get it and because, if they do, others can gain value from disclosing or using that information.

A trade secret does not have to be kept in

a particular form. Instead, the Act protects all kinds of financial, business, scientific, technical, economic, or engineering information that is stored including patterns, plans, compilations, program devices, formulas, designs, prototypes, methods, techniques, processes, procedures, programs, or codes, whether tangible or intangible, and whether or how stored, compiled, or memorialized physically, electronically, graphically, photographically, or in writing.

When is a Trade Secret Wrongfully Misappropriated?

Every company has employees who come to know trade secrets as essential parts of their jobs. Yet, trusted employees can become adversaries as they become competitor's employees carrying trade secrets with them. Takers and receivers of trade secrets can violate the Act. Takers, like soon-to-be ex-employees, wrongfully use improper means like transferring electronic information onto thumb drives or CDs or simply steal documents, unlawfully misappropriate such trade secrets when they had duties not to do so. Receivers of such information, like new employers or other competitors, know that the takers have gotten the trade secrets improperly and then such

takers took it intentionally and for their own benefit.

What is So Good About the Act for Manufacturers?

The Act provides several key benefits to manufacturers beyond those under existing state law. First, the Act allows companies to sue takers and receivers of trade secrets in federal court under a single law without customary jurisdictional limitations such as citizenship of the parties or the specific limitations as to the amount at stake. The Act also allows companies to use existing state law as an additional basis for protection. That relief under the Act takes the form of several different procedural weapons including a court seizing stolen trade secrets, temporarily or permanently enjoining others from using those stolen trade secrets, and awarding victims compensatory, punitive damages, and attorneys' fees and costs.

Manufacturers Must Take Reasonable Actions to Maintain the Secrecy of Their Trade Secrets

Just because companies think that certain information is a trade secret does not make it so. The Act puts the burden on the company to make sure that it takes reasonable means to keep the information a secret. Yet,

Aqueous Parts Cleaner

Crystal Clean offers aqueous based parts washers that are environmentally friendly. We combine our parts washers with our water based cleaning technologies to deliver cost effective, environmentally responsible, safe solutions.

- New aqueous cleaning solution with every service
- Complete machine maintenance and service by a qualified, trained representative
- Competitive Pricing
- All Crystal Clean models are stainless steel



For member's discount pricing, please contact Dean Popovich 877-938-7948



www.crystal-clean.com

carrying this burden can be easier said than done if companies do not affirmatively protect it. Such protections exist in a number of forms including:

- (1) limiting access to the information to only those who need to know it;
- (2) making sure that those who do have access have executed confidentiality and non-disclosure agreements;
- (3) protecting unauthorized access to the information through password protections, encryption, and copying limitations of electronic information;
- (5) having clear electronic use policies;
- (6) providing physically locked barriers for hard copy information.

Employment handbooks should also have explicit provisions so that employees know what trade secrets are, what uses of those secrets are permissible, and to make improper receipt or disclosure of trade secrets conduct that subjects and employee to discipline and possibly termination. Companies should also make sure that third parties who have access to trade secrets while performing services have signed non-disclosure agreements and are only given access to information needed to provide such services.

Companies often believe that lists of

customers, pricing, and margins are confidential. Theft of customer lists and related information constitutes a substantial cause for trade secret disputes. However, Courts interpreting and applying the Act look closely at what companies do to keep the information in such lists a secret. That is, if a list is known by or accessible to anyone in a business simply because they work there, courts may not be inclined to find that the Act protects the list because the company failed to keep it secret. The same result can occur with formulas, designs, and financial data.

Confidentiality and Non-Disclosure Agreements Should Be Tailored to Protecting Secrets

To maintain the Act's protections, employee agreements must be tailored to focus on what is necessary to protect a company's trade secrets. Courts may not enforce overly broad or general agreements. More than that, the Act requires that all such agreements and internal policies must clearly note that employees and independent contractors are immune from liability if they take or use information as whistleblowers to report violations of law to governmental

officials or to discuss with their attorneys in relation to company disputes. Failing to provide such express provisions in key employment and contractor agreements can preclude a court from awarding punitive damages and attorneys' fees in potential litigation.

Protection Against Being a Wrongful "Taker"

No doubt, employees do move from one employer to another. In those situations, it is important for a new employer to make sure that a potential employee does not have trade secrets belonging to a third party or others. Similarly, the new employer should confirm that the potential employee does not have a non-disclosure agreement with a prior employer. Assuring this in a document that the potential employee signs and affirms these points is a key component to avoid being dragged into a lawsuit.

Protection of trade secrets is a team effort involving all members of a manufacturer's leadership and human resource teams. Regardless of the breadth and benefits of the Act, everyone in the company must take affirmative steps like those noted here to maintain the protection the Act affords. ♦

ARE MANUFACTURERS IN A LEAGUE OF THEIR OWN?

JIM NELSON



For the last decade, the IMA Education Foundation has led multiple state-wide efforts to improve the quality of education programs that prepare the manufacturing workforce by using industry standards and competency assessments. Due largely to our efforts, there are now programs of study at over 200 high schools and 40 community colleges throughout Illinois with nearly 14,000 students enrolled, and we're hoping those numbers will continue to increase in the years ahead. It's an effort we willingly undertake for the benefit of all manufacturers in the state.

From time to time, however, we still find schools and faculty who say they've chosen not to teach to industry standards because employers aren't begging them to do so.

More recently, I was asked to visit a community college where enrollment in its manufacturing programs has dwindled to nearly non-existent levels. In dissecting their situation, I asked if their long-time accredited machining courses still taught to industry standards. The Department chair replied, "No, industry standards are too hard for our students."

I was reminded of the 1992 film, "A League of Their Own," where washed-up player – now manager – Jimmy Dugan (played by Tom Hanks) tells a quitting player who has also just complained that baseball was too hard: "It's supposed to be hard. If it wasn't hard, everyone would do it. The 'hard' is what makes it great."

And that made me think. How many other high schools and community colleges are using the excuse that employers don't care about the quality of training as a cover to the fact that they really think industry standards are just too hard? It could be that the programs have not been supported financially by the school district, making the contention that the standards are too hard a convenient excuse. But if the programs are properly funded but are still not meeting industry standards, then it's a far more dubious excuse – and one that should concern every manufacturer.

CAN ANYONE TELL MANUFACTURERS WHY OUR INDUSTRY STANDARDS ARE CAST TO THE CURB WHILE IN COUNTLESS OTHER OCCUPATIONS INDUSTRY STANDARDS ARE SACROSANCT?

Over the past two years, we have seen a decrease in the number of Illinois residents earning industry certificates. That's disturbing, as it indicates that our education system is churning out warm bodies and not much more. NIMS certifications have dropped from a nation-leading 2,335 in 2015 to 1,832 in 2017 – fourth in the nation. MSSC certificates have dropped from 1,264 in 2014 to 695 last year. Could the education system be right? Do manufacturers really not care about the quality of education in Illinois?

Manufacturers are in competition with other occupations for the best candidates, and we know that many parents and Guidance Counselors have inaccurate perceptions of manufacturing careers. But consider for a moment the following:

- Lawyers who attend four years of college before spending three years in law school are prohibited from practicing law until they pass the Bar Examination – the industry's standard
- Physicians who complete four years of college spend three years in medical school, three years as an Intern, another two to four years as a resident in a chosen specialty and then, before they can practice medicine, must complete a Board Certification in the Specialty, plus a state examination for a medical license – all of which must meet industry standards
- Want to be a nurse? No high school or community college can even offer a class unless the program of study meets...wait for it...industry standards
- Building trades...guess what...industry standards

And the list goes on.

Can anyone tell manufacturers why our industry standards are cast to the curb while in countless other occupations industry standards are sacrosanct?

The education system wants the IMA to endorse their programs of study and recommend their students to you for hire. I tell them that if they can't or won't teach to industry standards, IMA will not do that. We can't – we don't know what they're teaching nor do we know the quality of the curriculum.

If manufacturers are to improve the quality of applicants walking in the door looking for work, then manufacturers are going to have to tell local schools that industry standards are non-negotiable and are the minimum expectations – in both hard and soft skills – for employment. Employers are the customer...not the other way around. We can and should expect greater value for our tax dollars.

As Jimmy Dugan put it, "Anything worth doing is worth doing right." ♦

EMPLOYEE INVOLVEMENT IS KEY TO IMPROVING PRODUCTIVITY

IMEC

Companies today are learning the key to reducing workplace inefficiency is right in front of them – their employees. Workers who are included and involved in a company's improvement process are more likely to buy into that process – especially when it involves change.

Putting this into practice is not always easy for small manufacturers. Involving front-line workers can be an expensive proposition, especially when you're taking people out of production. How can small firms afford to do that?

The answer is simple: companies can't afford not to involve their workers. The front-line employees are often in the best position

Who Do You Involve?

Determining who to involve in the process partly depends on the size of your company. If your company is very small, it's best to work with all the employees. Involve them as soon as you can, outlining the broad objectives and what involvement you're hoping for.

In larger companies, it's helpful to first introduce the overall objectives to all employees, then gain regular input from workers through a smaller, representative group. For example, if there are natural divisions of labor within a company, select representatives from these divisions to serve as a focal point for involving workers

leading to a loss of employee trust and motivation. It also makes it harder for management to involve employees in future project.

Two way communication is vital throughout the entire process, and this remains just as true when involving front-line workers in a union environment. Since there is already an established union leadership representing workers' interests and concerns, that minimizes questions about which workers to involve. If possible, union representatives should be involved in setting goals, discussing current and desired company performance, and outlining any issues or institutional concerns they need to have addressed to help the company move ahead. This helps make the union a partner in the change process.

Dealing with Change

Improvement, of course, is not without its difficulties. Employee fear and apprehension are normal reactions to change of any kind in the workplace. That can be compounded by the fear that changes could lead to some employees losing their jobs. To reassure employees, some companies establish a policy that workers will not be let go due to corporate improvement projects. Another way to deal with fear is by providing training to improve workers' skills. This sends a message that the company is willing to invest in its workers.

In either case, implementing some of the employees' ideas early on – particularly ideas that are not threatening to anyone's job – can be the best way to minimize these emotional responses to change. We all feel good when we know we're an effective and respected contributor to our company's success.

Once the process is underway, the final task is to keep employees motivated. Be genuine about using ideas that people come up with and offer recognition from management and peers. That's a powerful motivator. ♦

REGARDLESS OF THE SIZE OF YOUR COMPANY, ONCE YOU DECIDE TO ADD EMPLOYEES TO THE PROCESS IT'S IMPORTANT TO IMPLEMENT SOME OF THEIR IDEAS AS SOON AS POSSIBLE. DOING SO SENDS A SIGNAL THAT YOU ARE LISTENING TO INPUT, THAT YOU WANT WORKERS TO BE INVOLVED, AND THAT YOU ARE GOING TO ACT ON THEIR SUGGESTIONS.

to identify inefficiencies, bottlenecks, and chances for improvement that can make their job easier and save the company money. Those ideas might never come to light unless workers are included in the process.

Smaller companies usually find that implementing employees' ideas more than pays for lost production time. In addition, it also enhances workers' job satisfaction and motivation and strengthens the relationship between management and workers. The end result is an engaged worker who starts thinking not only about his or her job, but about the company as a whole.

and gathering their input. Some companies even find it helpful to bring in an outside consultant to facilitate the first steps of the process, especially if employees have not previously been involved.

Regardless of the size of your company, once you decide to add employees to the process it's important to implement some of their ideas as soon as possible. Doing so sends a signal that you are listening to input, that you want workers to be involved, and that you are going to act on their suggestions. Failure to implement those ideas in the early stages can stall out the process,



LEADING THE WAY FOR FUTURE MANUFACTURERS

In an age where success is measured by a four-year degree, some K-12 school systems are leading the way in preparing their students for careers in science, technology, engineering and math before they enter college.

Back in March, Executive Director of the IMA Education Foundation and Project Lead The Way (PLTW) Board Member Jim Nelson as well as Editor and Manager of Publications Anastasia Lowenthal visited with Thompson Middle School in St. Charles, Illinois and Palatine High School in Palatine, Illinois to see how the students, instructors, and administrators are implementing their PLTW programs. What we found was nothing short of inspiring.

Technology, especially within the workforce, is moving faster than educators are able to prepare for it. But with a background of problem-solving skills and experience with technical applications, PLTW students are quite literally leading the way for future careers in manufacturing.

"We really want to prepare all of our students to be both college and career ready — not just focus on college but really focus on both at the same time," said Associate Director of Curriculum Dr. Melissa Byrne. "We want our students to be employable right after they leave our system or even while they are still in it. It's about providing all of our kids with access to their future careers regardless of race, socio-economic background — their families. It allows for students to be put on a pathway for success, whatever that looks like for them."

By focusing on both college and career readiness, all of the students at Thompson Middle School are gaining a more well-rounded education that prepares them for any and all future career pathways.

"It is really fun to have students come in and talk about how they're doing something in their math or science class that applies to our exploratory classes. It's literally tying everything together and strengthening their learning," said Eric Hensel, a PLTW Instructor at

Thompson Middle School.

"The design process that is taught in science is now taught in our exploratory classes. The students are now able to go deeper into their education because they've already reached the comfort level of having a problem, developing constraints, and solving the problem within a time frame," said Project Lead The Way Instructor Rob Harmon.

With at least 25 percent of the students at Thompson Middle School enrolled in a PLTW course, more students are getting access to a STEM education than ever before. However, paving the way for Project Lead The Way hasn't been a simple, straight-forward path.

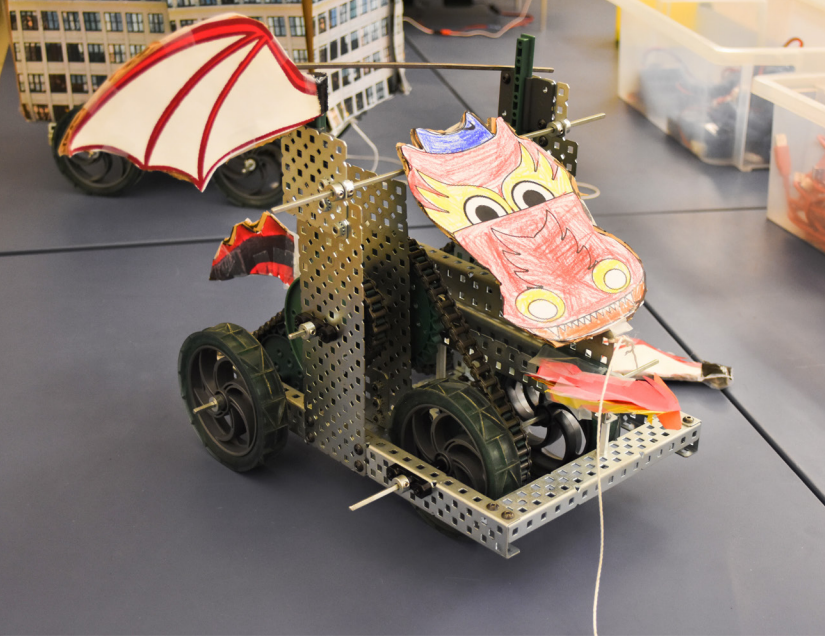
"Everybody recognized that there is a need for STEM education," said Mr. Harmon.

But integrating STEM exploratory classes into the middle school's curriculum has taken some trial and error.

"Before, you were basically the guy that ran around and made sure everything wasn't blowing up," said Mr. Hensel. "There would be a couple of kids working on a CNC lathe and a couple of kids learning about flight and space, but everybody would be at a different station and you had to teach them all at the same time. Often, there were students who didn't get a chance to try out a module before the class was over."

Now that Thompson Middle School has brought Project Lead The Way into the curriculum, things have changed for the better. More girls than ever before are taking STEM focused classes, and they're flourishing within them.

"80 to 85 percent of people currently working in STEM are men," said Project Lead The Way Instructor Ed Coyle. "It's not that men are better at these jobs, it's just that these types of jobs have been marketed to men. So how do we get girls interested in this field? Well, we have to start them young."



The students of Mr. Coyle's class designed prototypes with moving mechanisms. This dragon's tail and tongue wag as it rolls.

And starting them young is working. PLTW classes are comprised of almost 50 percent girls, and Mr. Coyle attested that it is the female students who tend to excel in these classes.

Project Lead The Way was brought into Thompson Middle School to help students prepare for high school courses that included the option to continue taking STEM classes. From there, PLTW has trickled down into the elementary school system as well. Schools are now able to offer PLTW classes from Kindergarten all the way through Senior year of high school thanks to the PLTW Launch program.

"Traditionally, before we had PLTW, the students got to explore classes in middle school and touch on a few different career path-

A CHANGE IN PERSPECTIVE COULDN'T COME SOONER. WITH ALMOST HALF OF THE MANUFACTURING FORCE RETIRING OVER THE NEXT 10-15 YEARS, A NEW PIPELINE OF EXPERIENCED WORKERS IS NEEDED NOW MORE THAN EVER.

ways, but then when they got to high school they were still kind of 'exploring' because they really didn't have much of a solid background in the program," said Dr. Byrne. "So now, starting them in the program at the elementary level and giving them that exposure allows students to be more focused as they go along with their education. And if they so choose, this can lead them on the path to things like industry credentials or dual-credit experiences that simply weren't available 10-15 years ago."

Not only are the students getting more excited about STEM careers, but so are their parents.

"Every time we have parent-teacher conferences, the parents will come in and say, 'This class is all my kid talks about!'" said Mr. Hensel.

A change in perspective couldn't come sooner. With almost half of the manufacturing force retiring over the next 10-15 years, a new pipeline of experienced workers is needed now more than ever.



Students Frank Weber (middle) and Wyatt Gentile (bottom) have a great outlook on their assignment: "We're going to keep trying until we figure it out. If it works, it works, and if it doesn't, we'll just keep trying until we get it right," Frank said.

At Palatine High School, the next generation of Engineers is well on their way to successful careers.

"Before the PLTW program, this really wasn't a career option offered in high school," said Principal of Palatine High School Gary Steiger. "But these kids are coming out of high school with training and skills that they can use for their future. This is life-changing for our kids."

Mr. Steiger discussed many of the opportunities offered at Palatine High School, such as their construction class, where students are able to build half million-dollar homes in their community.

"It's amazing what these kids are building," Mr. Steiger said. "We have students coming out of high school who already have carpentry and homebuilding skills — kids who are graduating from our school who already have college credits under their belt. Some of our top students are in this program."

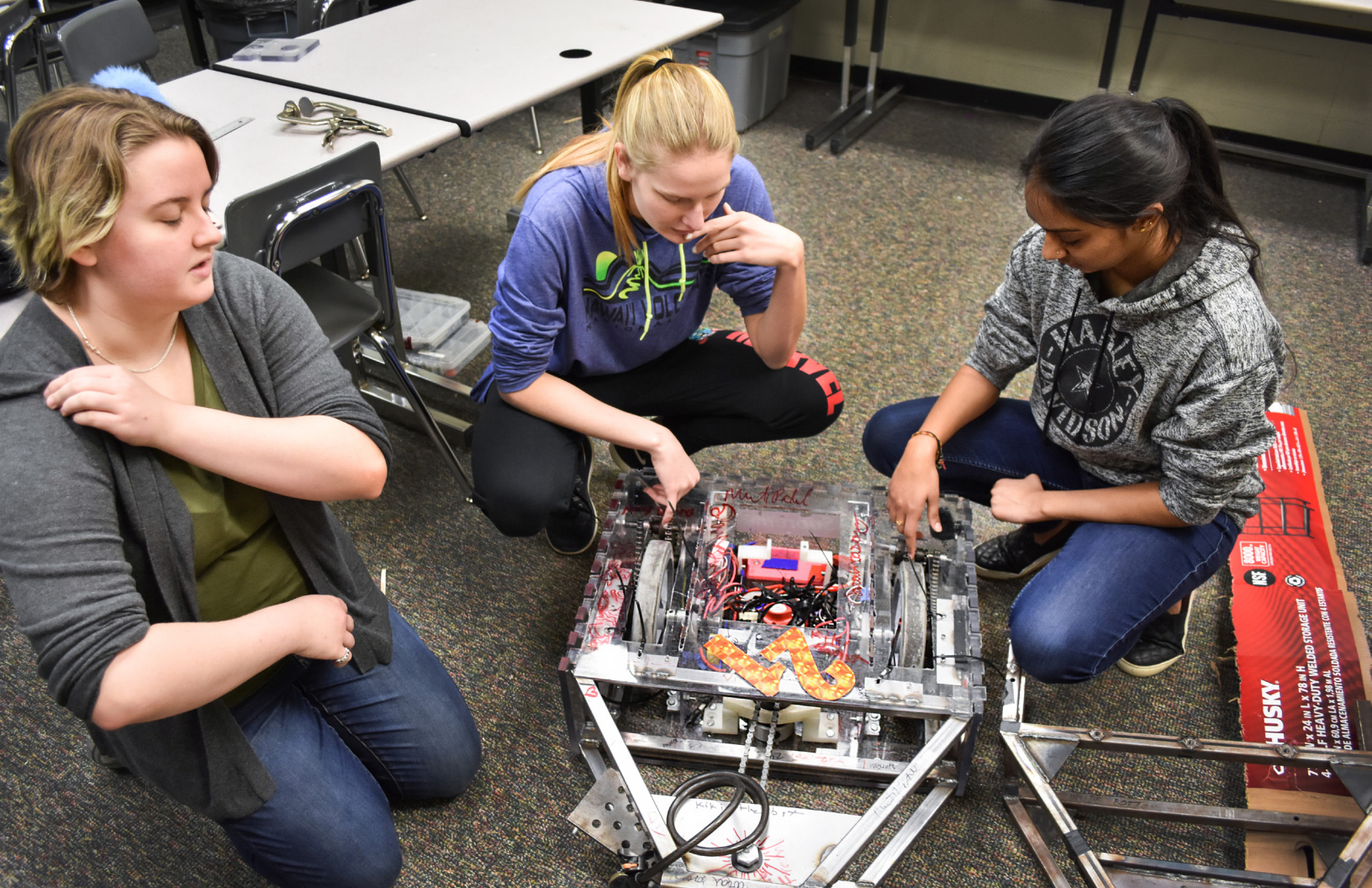
Among those top students are Seniors Dana Balog, Meeti Patel, and Claudia (Kiki) Herbst. The young women have taken Alex Larson's Robotics class two years in a row and are currently taking Manufacturing with Mark Hibner. Through these classes they have perfected their skills in designing, manufacturing, testing, and battling their robots at the "Robot Rumble" hosted at neighboring Township High School. They were thrilled to discuss their battle bot as well as their career plans after high school.

"Our robot was 83 pounds this year," Dana excitedly shared.

"It has a steel blade in the front," Kiki said. "Mr. Hibner helped me manufacture the mounting mechanism and put holes in the blade to make it lighter in the front."

"Theoretically, the weapon on the bot will spin at 3,000 rotations per minute," said Meeti.

Meeti, Kiki, and Dana were even able to visit ICATT employer GF Machining Solutions in Lincolnshire, Illinois and use their metal 3D



Claudia (Kiki) Herbst (left), Dana Balog (middle) and Meeti Patel (right) discuss the design, testing, and manufacturing of their robot, which competed in the Robot Rumble at Township High School just a few weeks earlier.

printer.

"It was so cool," said Kiki. "They let us use their 3D printer to make a mounting system for our robot. We learned from our mistakes last year and were able to make a much better mounting system."

Each of the young women used their personal expertise on the project. While all three of them are going into the field of Engineering, each have a specific area they like to focus within.

Dana enjoys the building process and takes after her father, who owns a construction business. She did all of the welding on the battle bot.

"I just switched my major from Mechanical Engineering to Manufacturing Engineering and Bradley University. I just love building things and I love finding a way to build them better and faster. I'm interested in having a leadership role — in asking how to more efficiently make a product," she said. "My dad's a contractor. While I was growing up, my parents built 32 townhouses. I've always been building things and I've always been interested in how things work."

Though Dana is sure she would have gone into Engineering regardless of the programs offered at Palatine High School, the story is different for Meeti and Kiki.

"My freshman year, I thought I was going into the medical field," Meeti explained. "I was able to take Computer Integrated Manufacturing last year, and I instantly realized Mechanical Engineering was the field for me. For our robot, I did a lot of CAD modeling and calculating whether or not everything was made correctly and would fit together. I think I want to go into the designing of products and get involved more with the prototyping than the manufacturing side

of it."

Meeti is currently deciding between going to a four-year university or finding an apprenticeship with a manufacturer.

"If I could get an apprenticeship and then go on to get a Bachelor's Degree, then I could get the work experience while getting an education," she said.

Kiki will be attending Colorado School of Mines for Mechanical Engineering this fall.

"I like every aspect of Engineering — I'm not picky," Kiki said. "I would like to see myself prototyping, designing, building...all of it! But I definitely don't think I would have gone into Engineering if it weren't for this program."

Not only are these young women shaking up the stereotype of STEM careers only being for men, but they're changing their parents' minds too.

"At first, my dad didn't understand," said Meeti. "He didn't know if it would work well with me being a girl and all. But when I came home and showed him the programs we were using and the parts we were making and when he got to see the Live Streaming of the Robot Rumble, he was so impressed. We designed this bot, built it, and it worked. People didn't think we would be able to do it, and we proved them wrong by completing the project."

Project Lead The Way is all about proving that STEM careers are not only viable options available to anyone, but that the future is in STEM. After seeing the impacts of PTLW courses on these students and their career paths, it is clear that the future of STEM will be incredibly bright. ♦

Do you want to improve the world?

HELP A STUDENT WIN A
\$10,000
SCHOLARSHIP!

Applications are due June 1, 2018.

WHAT YOU NEED TO KNOW ABOUT USING YOUR EMPLOYEE'S BIOMETRIC INFORMATION

BARNES & THORNBURG LLP

For almost a decade, the Illinois Biometric Information Privacy Act ("BIPA") was largely ignored after its enactment in 2008. The BIPA regulates the collection and storage of Illinois citizens' biometric data, such as fingerprints, voiceprints, and retina scans, in order to ensure that data is safeguarded by those who obtain it. Employers who collect or retain biometric information for timekeeping, security, identification, or other purposes must be aware of the BIPA's requirements, especially in the wake of a significant number of class-action lawsuits recently brought for alleged BIPA violations.

What is BIPA?

The Illinois legislature enacted the BIPA in 2008 in order to protect citizens' biometric information from falling into the wrong hands. Unlike other sensitive employment data, such as a Social Security number, biometric information cannot be changed if it gets compromised. The BIPA regulates pri-

ivate entities' collection and storage of "any information, regardless of how it is captured, converted, stored, or shared, based on an individual's biometric identifier used to identify an individual." Biometric information includes "a retina or iris scan, fingerprint, voiceprint, or scan of hand or face geometry." Private entities, including employers, are forbidden from collecting or storing biometric information unless certain requirements are met.

What Does BIPA Require?

First, the BIPA requires written notice to be provided to the person whose information will be collected or stored—for employers, that usually means the employee. An employer must notify the employee in writing of the "specific purpose and length of the term for which a biometric identifier or biometric information is being collected, stored, and used." However, notice isn't enough — the employer must also obtain a written release from the employee con-

senting to the collection and storage of the employee's information.

Second, BIPA requires employers to develop a written policy "establishing a retention schedule and guidelines for permanently destroying biometric identifiers and biometric information when the initial purpose for collecting or obtaining such identifiers or information has been satisfied" or within three years of termination of employment. This policy must be made available to the public.

Third, an employer may not disclose biometric information to a third party — whether or not for profit — unless several requirements are met: the employee consents to the disclosure; the disclosure completes a financial transaction requested by the employee; or the disclosure is required by law, warrant, or subpoena.

Finally, the BIPA requires that employers use a "reasonable standard of care" within its industry for storing, transmitting, and protecting biometric information and act



About the Authors: David Ritter is a Partner at Barnes & Thornburg LLP, and can be reached at david.ritter@btlaw.com, or (312) 214-4862. Dana Amato is an Associate at Barnes & Thornburg LLP, and can be reached at dana.amato@btlaw.com, or (312) 338-5912

“in a manner that is the same as or more protective than the manner in which the [employer] stores, transmits, and protects other confidential and sensitive information.”

Why Should Illinois Employers Care?

Other states have enacted or proposed similar biometric information privacy laws, such as Connecticut, Montana, New Hampshire, Texas, and Washington State. However, Illinois’ law is the only one that allows for a private cause of action for a violation. Employees can sue their employers under the law for \$1,000 or actual damages (whichever is greater) per violation (i.e. per fingerprint), or \$5,000 or actual damages (again, whichever is greater) per violation if the violation is intentional or a result of

ee lawsuits, employers should be taking notice of the law and doing their best to comply with its provisions.

What Can Employers Do to Protect Themselves?

Because many of these lawsuits are in their beginning stages, it is difficult to predict what a successful argument or defense looks like. The best advice is to read the statute, understand its provisions, obtain appropriate advice, and make adjustments to practices and policies in order to comply with the requirements. If you determine that your company is collecting and storing this kind of information, the next step is to evaluate your current practices from legal

EMPLOYERS SHOULD ALWAYS OBTAIN AN ACKNOWLEDGMENT AND RELEASE FROM THE EMPLOYEE BEFORE COLLECTING OR STORING BIOMETRIC DATA. BIPA REQUIRES EMPLOYERS TO ADVISE EMPLOYEES OF THE SPECIFIC PURPOSE AND LENGTH OF TERM FOR WHICH THE DATA IS BEING COLLECTED, STORED, AND USED.

reckless conduct, plus attorneys’ costs and fees.

Facebook, Google, and Snapchat, among others, have all been sued under Illinois’ BIPA. However, class-action lawsuits aren’t only a concern for international tech giants. More than a dozen Illinois employers of different sizes, across all industries, have been sued by current and former employees for alleged BIPA violations.

In most of these cases, the plaintiffs have alleged that their employers failed to inform them about the companies’ policies for use, storage, and ultimate destruction of fingerprint data collected and stored for timekeeping purposes, or that the employers did not obtain the employees’ written consent before collecting, using or storing that data.

Given the significant increase in employ-

compliance and potential exposure standpoints. Please note that getting consent or giving notice to employees after the fact is problematic as the BIPA requires entities to “first” disclose its practices and obtain consent before collection and storage.

Pursuant to the BIPA, you have to create a written policy that establishes guidelines and a schedule for permanently destroying biometric data that had been collected. In general, employers should collect only the biometric information that is needed and store it no longer than necessary. The information must be destroyed when its purpose is fulfilled or within three years of the individual’s last interaction with the company—in most cases, a termination. As a best practice, employers should include this written policy in the Employee Handbook.

Employers should always obtain an acknowledgment and release from the employee before collecting or storing biometric data. BIPA requires employers to advise employees of the specific purpose and length of term for which the data is being collected, stored, and used. This should also contain an acknowledgment to release this information to the employer. Employers should have the employee sign off on a separate acknowledgment and release at the time of hire or when the data is collected and keep a copy in the employee’s file.

Employers must refrain from disclosing the data, whether by accident or by selling, leasing, trading, or otherwise profiting from it. The BIPA prohibits the disclosure of employee’s biometric information to third parties without the employee’s consent, or where otherwise provided by law, including hacking. Employers should store the data like you would other confidential information and guard diligently against disclosure. These efforts should reflect the reasonable standard of care for your industry for protecting employee information. If this information is disclosed, employers must comply with Illinois’ data breach protection law, the Illinois Personal Information Protection Act, which requires employers to notify an employee in the event that personal information is unlawfully disclosed to a third party.

Finally, employers should have appropriate provisions in vendor contracts to protect biometric data. In contracts with vendors who store or collect biometric data on your behalf, you should require the vendor to comply with the BIPA and provide the same level or higher level of protection for the data that the company does. Employers should also retain the right to request information on the vendor’s information security protocols, conduct periodic audits of the vendor’s security protocols, and request to be notified in the event of any breach or suspected breach of the biometric data the vendor holds for the company. ♦

APPRENTICES: DEVELOPING THE WORKFORCE OF THE FUTURE

RSM US LLP

During a recent visit to a shop floor, a group of Colorado high school students faced a compelling proposition: Higher education is expensive, “so, if you could earn up to 40 to 50 credit hours for college by working in a business like this, and get paid, and get your high school diploma, who wouldn’t want to do that?” asked Noel Ginsburg, chief executive officer of Intertech Plastics, which hosted the visit.

Apprenticeship programs are gaining popularity among employers and potential employees across the country, driven by a tight labor market, aging baby boomers, and the demand for new technical skills. In a Chicago suburb, manufacturer Otto Engineering (IMA member) is dedicating space in its new facilities to a program that combines on-the-job training with night classes provided through a local manufacturing association. The company is growing, says Otto’s president, Tom Roeser, and “it cannot grow without good employees.”

The Rise of Apprenticeship Programs

Interest in apprenticeship programs is not due to any single cause or relegated to a single industry. But a number of factors are converging to make such programs appealing:

Aging Workforce: The aging demographic can challenge any industry, but is particularly problematic in trades like construction that require physical strength and endurance. According to the Manufacturing Institute, the median age of the manufacturing workforce in 2000 was 40.5; by 2012, it reached 44.7. In prior generations, an aging workforce was replaced by younger workers through apprenticeships.

Attracting and Retaining Skilled Labor: For some time, employers have cited a skills gap—that is, a lack of qualified workers with the skills they need—as the reason so many open roles go unfilled. Some have noted that fewer high schools are offering shop or other trade classes, resulting in fewer skilled workers to employ. But skills are only part of the workforce dilemma of how to attract personnel. Millennials and Generation Z—in other words, the ones who will be replacing retiring boomers—have

different priorities. Economists have noted little evidence that the U.S. economy is experiencing an unusually large skills gap. Nevertheless, the need for skilled workers exists and many employers are having difficulty finding and attracting them.

Decline in Appeal: Young workers are less interested in construction and manufacturing than they once were. A recent survey noted that less than one-third of Americans encourage their children to pursue careers in manufacturing. Instead, they encourage them to get a college education, a path that may not be for everyone and often not necessary for a well-paying job in the trades.

Less Investment in Training: A report by the ADP Research Institute suggests that a lack of training, combined with a more transient workforce, is among the reasons that companies are facing a skills challenge. Middle market companies are beginning to recognize this shortfall, and are investing in training in order to retain employees. But others are slashing training budgets and cutting apprenticeship programs.

Apprenticeship Benefits

Registered apprenticeship programs that meet national standards are found in a myriad of industries, including manufacturing and construction, but also health care, media, agriculture and professional services—the list goes on. Unfortunately, middle market companies operating on thin margins may not be able to afford such programs, whose costs can include training, classroom work, training equipment and program management in addition to wages.

For employers, the benefits are clear and often outweigh the costs. According to one study by the Economics & Statistics Administration, apprenticeships improve overall company performance and provide a competitive advantage over other firms. Specifically, companies gain the following:

Production: The value of output by apprentices and a reduction in errors

Workforce: Reduced turnover, improved recruitment, and a pipeline of skilled employees and future managers

Soft skills: Improved employee engagement, greater problem-solving ability, flexibility to perform a variety of tasks and a

reduced need for supervision

For employees, registered apprenticeship programs provide a path to a career, college and high school credit hours, technical instruction, and certification as a qualified journeyman, among other benefits.

Thomas Hacker is the president of C&L Supreme, a Midwest manufacturer of precision CNC-machined components and assemblies. His company has had an apprenticeship program for about six years in partnership with the local Technology & Manufacturing Association. “We’re a small business,” he says. “We don’t have the depth or personnel bandwidth to supply a classroom and other resources.” Through the TMA, however, the program has a hands-on training facility, trainers and a curriculum. Ultimately, the program provides credentialing for participants that meets National Institute for Metalworking Skills standards.

The results for C&L Supreme are in some ways modest; so far, only four employees have been through the three-year program. Yet for both the company and the participants, success is already measurable. One individual, for example, came out of the military without a clear idea of what he wanted to do. He was hired at C&L as an operator, says Hacker, and was eventually put through the apprenticeship program. Within five years, he was promoted to supervisor and is earning three times his original salary—and, presumably, is teaching others similar skills.

“Obviously, this satisfies a need for us,” says Hacker, by providing skilled and dedicated personnel to its workforce and making the company more attractive to potential hires. The employees themselves build the skills needed for a career.

Support for the Programs

In the fall of 2016, the Department of Labor (DOL) released grant funds to jumpstart state innovation to expand access to apprenticeships. Taking its cue from President Donald Trump’s executive order to establish standards for industry-recognized apprenticeships, in June 2017 the DOL announced its initiative to expand apprenticeships in the United States. This was to be accomplished in part with the help of a task



force representing companies, trade and industry groups, educational institutions, and labor unions. But as of January 2018, the DOL had not announced how it would use the \$95 million set aside by Congress for these initiatives to promote apprenticeships.

Hacker notes that his company has received state assistance for their program in the past. “On the job training money is available,” he says, but it may involve more red tape than some companies can tolerate. Yet he points out that programs can get as much as 50 percent of the cost reimbursed through government funding.

There are, in fact, a number of initiatives and partnerships focused on launching and maintaining apprenticeships, many at the state level. For example:

- The website of the Associated General Contractors of America lists numerous apprenticeship programs from Hawaii to Virginia.
- In the Midwest, the Industrial Manufacturing Technician Apprenticeship is an “earn and learn” program established in 2014 with a broad coalition of labor unions and manufacturing employers and supported with grant funds from the DOL.
- A program for community health work

ers sponsored by Bronx-Lebanon Hospital, the New York Alliance for Careers in Health Care, La Guardia Community College and health care workers’ union 1199 SEIU is another example of a collaborative effort to provide participants with the means to gain the skills for the jobs they seek.

Can Apprenticeship Programs Help US Workers?

One need only look overseas for examples of apprenticeships playing key roles in the success of a country’s industries:

- Nearly half a million Germans enter the workforce through apprenticeship programs, which have been cited as a critical element in the success of the country’s manufacturing industry.
- In Switzerland, where two-thirds of young people go into apprenticeship, their youth unemployment rate is 3.2 percent, while at the end of 2017 that rate in the United States was 8.9 percent.

These two countries have different cultures, histories and economies, so what works there might not catch on in the United States to the same degree.

In addition, the focus for many apprenticeship programs — indeed, the reason proponents of these programs say they are

needed — has primarily been on growing middle-skill workers. But economists have warned that the jobs requiring these middle skills — such as machinists, technicians and other roles — have been on the wane since the 1980s, while job growth has been in the low and high ends of the skills spectrum.

According to the DOL, there are some 550,000 apprenticeships across the country, and more than 150,000 businesses have integrated the apprenticeship model into their talent development strategy. Yet this may not be enough to replace those who are leaving the trades. According to a number of sources, for every four people who leave the trades, by retirement or otherwise, only one new person is supplied by apprenticeship programs to enter the trades.

Participants must work a full, eight-hour day, and then go to class for three hours twice a week. Employers need to be engaged with employees and instructors on a regular basis to monitor progress.

“It is an investment by the company and the employee,” says Hacker. “Without that commitment by both parties, it’s not going to work.” ♦

I, COBOT: THE RISE OF INDUSTRIAL ROBOTICS AND THE NEED FOR EMPLOYEE SAFEGUARDING

ROCKFORD SYSTEMS, LLC

Tech executive and billionaire entrepreneur Elon Musk recently took to Twitter calling for the regulation of robots and Artificial Intelligence (AI), saying their potential, if left to develop unchecked, threatens human existence. Google, Facebook, Amazon, IBM and Microsoft joined in with their own dire forecasts and have jointly set up the consortium "Partnership on AI to Benefit People and Society" to prevent a robotic future that looks not unlike The Terminator movie series. National media heightened panic by broadcasting a video released by a cybersecurity firm in which a hacked industrial robot suddenly begins laughing in an evil, maniacal way and uses a screwdriver to repeatedly stab a tomato. The video demonstrated how major security flaws make robots dangerous, if not deadly.

Is all this just media hyperbole or are robots really that hazardous to our collective health? Are productivity-driven manufacturers unknowingly putting employees at risk by placing robots on the plant floor? What kind of safeguarding is required? Should robots be regulated, as Elon Musk believes?

"Dumb" Machines vs. Cobots

Until now, the robots used in manufacturing have mostly been "dumb" robots; that is, room-sized, programmed machinery engineered to perform repetitive tasks that are dirty, dangerous or just plain dull. Typical applications would include welding, assembly, material handling and packaging. Although these machines are very large and certainly have enough power to cause injuries, the instances of employees actually being injured by robots is relatively rare. In fact, over the past three decades, robots have accounted for only 33 workplace deaths and injuries in the United States, according to data from the Occupational Health & Safety Administration (OSHA).

So, you might ask, why the sudden uproar when there are already 1.6 million industrial robots in use worldwide? Most of the clamor behind calls for regulation stems from a new generation of robots called "cobots" (collaborative robots) that are revolutionizing the way people work. Unlike standard industrial robots, which generally

work in cages, cobots have much more autonomy and freedom to move on their own, featuring "near-human" capabilities and traits such as sensing, dexterity, memory and trainability.

The trouble is, in order for cobots to work productively, they must escape from their cages and work side-by-side with people. This introduces the potential for far more injuries. In the past, most injuries or deaths happened when humans who were maintaining the robots made an error or violated the safety barriers, such as by entering a cage. Many safety experts fear that since the cage has been all but eliminated with cobots, employee injuries are certain to rise.

Since cobots work alongside people, their

intelligence and power a robot has, the bigger its potential threat.

Types of Injuries

OSHA lists four types of accidents resulting from robot use in the Technical Manual "Industrial Robots and Robot System Safety" (Section IV: Chapter 4).

1. Impact or Collision Accidents. Unpredicted movements, component malfunctions, or unpredicted program changes related to the robot's arm or peripheral equipment could result in contact accidents.

2. Crushing and Trapping Accidents. A worker's limb or other body part can be trapped between a robot's arm and other peripheral equipment, or the indi-

CONSIDER THIS: ALTHOUGH COBOTS CURRENTLY REPRESENT ONLY THREE PERCENT OF ALL INDUSTRIAL ROBOTS SOLD, THEY ARE PROJECTED TO ACCOUNT FOR 34 PERCENT OF THE INDUSTRIAL ROBOTS SOLD BY 2025, A MARKET THAT ITSELF IS SET TO TRIPLE IN SIZE AND DOLLAR VOLUME OVER THAT PERIOD.

manufacturers have added basic safety protections in order to prevent accidents. For instance, some cobots feature sensors so that when a person is nearby, the cobot will slow down or stop whatever function they are performing. Others have a display screen that cues those who are nearby about what the cobot is focusing on and planning to do next. Are these an adequate substitute for proven safeguarding equipment? Only time will tell.

There is another, more perilous problem with robots in general: Robots are basically computers equipped with arms, legs or wheels. As such, robots are susceptible to being hacked. But unlike a desktop computer, when a robot is hacked it has the ability to move around. For instance, a disgruntled ex-employee could hack into a robot and re-program it to harm people and destroy property. The more functionality,

vidual may be physically driven into and crushed by other peripheral equipment.

3. Mechanical Part Accidents. The breakdown of the robot's drive components, tooling or end-effector, peripheral equipment, or its power source is a mechanical accident. The release of parts, failure of gripper mechanism, or the failure of end-effector power tools (e.g., grinding wheels, buffing wheels, deburring tools, power screwdrivers, and nut runners) are a few types of mechanical failures.

4. Other Accidents. Other accidents can result from working with robots. Equipment that supplies robot power and control represents potential electrical and pressurized fluid hazards. Ruptured hydraulic lines could create dangerous high-pressure cutting streams or whipping hose hazards. Environmental ac-

cidents from arc flash, metal spatter, dust, electromagnetic, or radio-frequency interference can also occur. In addition, equipment and power cables on the floor present tripping hazards.

Robot Safety Regulations

Robots in the workplace are generally associated with machine tools or process equipment. Robots are machines, and as such, must be safeguarded in ways similar to those presented for any hazardous remotely controlled machine, falling under the OSHA General Duty Clause (5)(a)(1) which requires employers provide a safe and healthful workplace free from recognized hazards likely to cause death or serious physical harm. Also applicable are OSHA 1910.212 (a)(1) "Types of Guarding" and 1910.212 (a)(3)(ii) "The point of operation of machines whose operation exposes an employee to injury shall be guarded."

Various techniques are available to prevent employee exposure to the hazards that can be imposed by robots. The most common technique is through the installation of perimeter guarding with interlocked gates. A critical parameter relates to the manner in which the interlocks function. Of major concern is whether the computer program, control circuit, or the primary power circuit, is interrupted when an interlock is activated. The various industry standards should be investigated for guidance; however, it is generally accepted that the primary motor power to the robot should be interrupted by the interlock.

In general, OSHA's view on robot safe-

ty is that if the employer is meeting the requirements of ANSI/RIA R15.06, Industrial Robots and Robot Systems-Safety Requirements, then the manufacturer has no issues. For guidance on how to select and integrate safeguarding into robot systems, refer to Robotic Industries Association's Technical Report: RIA TR R15.06-2014 for Industrial Robots and Robot Systems – Safety Requirements and Safeguarding.

Published by the American National Standards Institute (ANSI) and Robotics Industry Association (RIA), ANSI/RIA R15.06 are consensus standards to provide guidance on the proper use of the safety features embedded into robots, as well as how to safely integrate robots into factories and work areas. The latest revision of the standard, ANSI/RIA R15.06-2012, references for the first time ISO 10218-1 & 2 to make it compliant with international standards already in place in Europe. Part 1 of ISO 10218 details the robot itself; Part 2 addresses the responsibilities of the integrator.

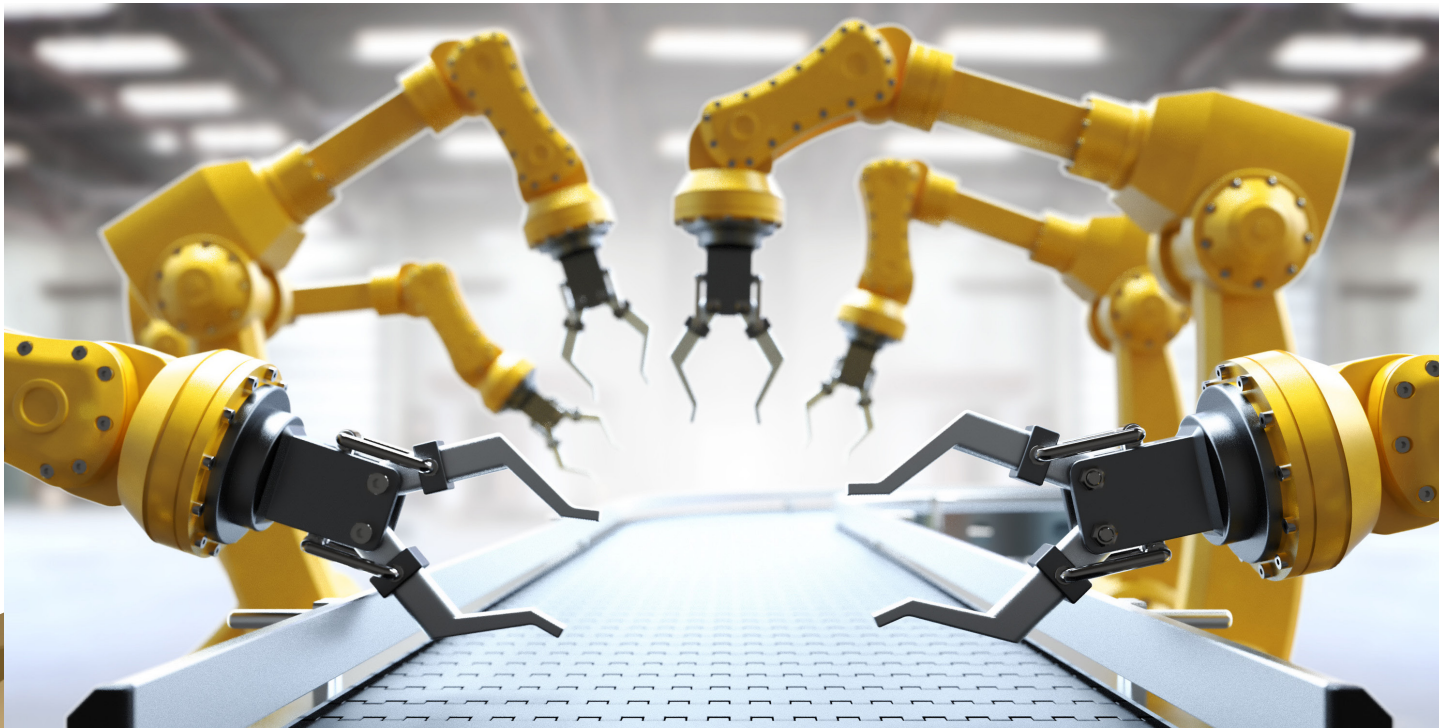
There are also new requirements in ANSI/RIA R15.06-2012 for collaborative robots; in this case, ISO 10218 and the ISO/TS 15066 Technical Specification. This standard clarifies the four types of collaboration: Safety Monitored Stop, Hand Guiding, Speed & Separation Monitoring and Power & Force Limiting. ISO/TS 15066 holds key information including guidance on maximum allowable speeds and minimum protective distances, along with a formula for establishing the protective separation distance, and data to verify threshold limit values for power and force limiting to

prevent pain or discomfort on the part of the operator.

The requirement for risk assessments is one of the biggest changes in the new RIA standard. The integrator, or the end-user if they are performing the job of an integrator, now must conduct a risk assessment of each robotic system and summarize ways to mitigate against these risks. This may involve procedures and training, incorporating required machine safeguarding, and basic safety management. Risk assessments calculate the potential severity of an injury, the operator's exposure to the hazard, and the difficulty in avoiding the hazard to arrive at a specific risk level ranging from negligible to very high.

In the future, as cobot use rapidly expands throughout industry, regulation of this technology will grow more focused and specific. Consider this: although cobots currently represent only 3 percent of all industrial robots sold, they are projected to account for 34 percent of the industrial robots sold by 2025, a market that itself is set to triple in size and dollar volume over that period.

The next 10 years will be pivotal for American manufacturing, and success largely depends on companies' ability to navigate the transition from traditional manufacturing to Industry 4.0-style automation and the widespread use of robots. While few people have as dire a view as Elon Musk on the subject, it is critical that employee safety is not lost in the excitement as we shepherd robots out of their cages to work hand-in-hand with humans. ♦



INTERNATIONAL TAX PROVISIONS IN TAX REFORM LEGISLATION

CROWE HORWATH LLP



The international tax provisions of the recently passed reform known as the Tax Cuts and Jobs Act contain the most significant and dramatic changes to the U.S. taxation of foreign income since the Tax Reform Act of 1986.

The international legislation has been marketed as the adoption of a territorial tax system similar to that in other tax jurisdictions, but in reality it is only a small step in that direction. The new favorable territorial treatment for dividend exemption applies only to certain corporations, and new base erosion anti-abuse tax (BEAT) measures for U.S. corporations are part of the provisions. The act retains and expands upon the onerous U.S. Subpart F rules. Hence, the new U.S. international tax regime might instead be characterized as “territorial light.”

Nevertheless, the far-reaching international provisions in the act are likely to cause a profound shift in the taxation and cash position of multinational companies,

with ripple effects across the globe.

The act imposes a tax on the accumulated foreign earnings of a U.S. corporation’s foreign subsidiaries as part of a “toll charge” to the new system, albeit at lower rates than prior and new corporate income tax rates. The legislation also taxes income of a U.S. company’s foreign subsidiaries generated from the use of foreign-based intangibles.

Other provisions effectively provide tax incentives for U.S. multinational corporations to move or keep group intangibles onshore, such as taxing U.S. income from foreign sources at a significantly reduced U.S. tax rate. Payments by corporations to foreign related parties also are now potentially subject to a minimum tax, which especially will affect larger foreign-owned companies.

The significant lowering of the U.S. corporate tax rate combined with the new international tax changes will require affected U.S. and foreign companies to carefully re-evaluate their existing global

supply chain and capital structures. They also will need to evaluate their existing intercompany transfer pricing arrangements and assess their readiness to comply with the financial reporting aspects related to the act’s provisions.

State Implications of the International Tax Elements of the Act

The state implications of these provisions depend on a state’s general conformity to the Internal Revenue Code (IRC). About half the states conform to the current IRC, meaning they adopt all federal changes as changes are enacted. Most of the remaining states conform to the IRC as of a specific date. For example, Kentucky adopts the IRC as it existed on Dec. 31, 2015. Unless the state changes that reference date, none of the federal law changes are applicable for Kentucky purposes. The observations here assume a state’s reference date to the

About the Authors: Greg Buteyn is the Managing Director at Crowe Horwath LLP, and can be reached at greg.buteyn@crowehorwath.com, or (720) 222-4479.

Jon Cesaretti is a Tax Principal at Crowe Horwath LLP and can be reached at jon.cesaretti@crowehorwath.com, or (630) 574-1615.

Mark Ulishney is a Partner at Crowe Horwath LLP and can be reached at mark.ulishney@crowehorwath.com, or (415) 230-4968.

IRC is as of the effective date of the federal changes.

For states, the U.S. Constitution inserts another layer of complexity to the analysis of state taxation of foreign source income. In *Kraft General Foods, Inc. v. Iowa Department of Revenue and Finance*, the U.S. Supreme Court determined that Iowa's conformity to federal tax law (taxing foreign dividends but allowing a deduction for domestic dividends) was an unconstitutional violation of the foreign commerce clause because it resulted in discriminatory treatment of dividends received from foreign affiliates as compared to domestic affiliates. The decision does not prohibit states from taxing foreign source income but requires that the treatment be consistent with domestic source income. After *Kraft*, some states provided for a deduction (or exclusion) for foreign dividends. Others responded by taxing domestic dividends. California, for example, taxes 25 percent of dividends from entities that are not included in the California unitary combined return, whether they are foreign or domestic entities.

Highlights of the International Tax Elements of the Act

(1) Transition tax on deemed repatriation of foreign earnings. The U.S. shareholder of a 10 percent owned foreign corporation must include in U.S. taxable income its share of the accumulated deferred foreign income of its foreign subsidiaries as of a November or December 2017 date. The mandatory inclusion is reduced by a participation deduction designed to result in U.S. tax at reduced rates of 15.5 percent for cash and equivalents and 8 percent for the residual earnings.

Observations: The mandatory income inclusion of foreign earnings and transition tax must be reported and taxed in 2017 income tax returns and 2017 financial statements. The transition tax can be paid in installments over an eight-year period. An election can be made not to apply net operating losses to offset the inclusion.

Calculation of accumulated foreign income can be a difficult and voluminous exercise and needs to be performed on a tax earnings and profits basis. Companies must assure that the earnings and profits of their subsidiaries are correct and up to date for 2017 reporting.

State Implications: The majority of states

provide a deduction for amounts included in federal taxable income related to foreign dividends, including amounts treated as deemed dividends under Subpart F of the IRC. We expect the current treatment to apply to the deemed repatriation. While some states may be tempted to increase revenues from this provision, their ability to do so is questionable in light of the decision in *Kraft*.

(2) 100 percent foreign dividends received deduction. The act provides a 100 percent deduction for dividends received by a U.S. corporation from a 10 percent owned foreign corporation. The provision applies to distributions made after Dec. 31, 2017, regardless of U.S. corporation or foreign subsidiary year-end.

Observations: The dividend deduction does not apply to foreign branch income or to individuals or pass-through entities such as S corporations, partnerships, and flow-through LLCs.

State Implications: As already noted, most states do not tax foreign dividends. We expect the current treatment to remain unchanged.

(3) Anti-deferral tax on global intangible low-taxed income (GILTI). The GILTI provision taxes the intangible income of foreign subsidiaries at a minimum effective U.S. 10.5 percent tax rate. Taxable foreign intangible income is defined as income in excess of a 10 percent routine return on tangible depreciable business assets of the foreign subsidiaries.

Observations: Although directed at intangible income, the GILTI calculation can result in current U.S. taxation of other foreign income as well.

GILTI effectively assumes that returns on foreign subsidiary intangible property erode the U.S. tax base regardless of where the intangibles were developed. The provision may provide additional motivation for U.S. companies to keep their intellectual property in the U.S. or bring existing offshore intellectual property back to the U.S.

State Implications: Similar to the deemed repatriation, this tax results from an income inclusion, net of a deduction. The amounts are determined under two new IRC sections, which states automatically would adopt as they update their IRC reference dates. Unlike the deemed repatriation, these new provisions appear to fall outside existing state laws that allow a deduction for deemed dividends. Indi-

ana law, for example, provides a deduction for foreign source dividends, which are defined under Indiana Code 6-3-2-12(1) to include "any amount that a taxpayer is required to include ... under Section 951." The GILTI inclusion is under new Section 951A. Thus, the current deduction would not apply; however, the *Kraft* decision may require states to expand the deduction to cover this amount as well.

(4) New deduction for foreign-derived intangible income (FDII). The act provides a favorable tax incentive for U.S. corporations earning foreign income deemed to be from exploiting U.S.-based intangibles abroad. Foreign income eligible for a reduced 13.125 percent income tax rate includes income from sales of property to a foreign person for foreign use, services provided to persons located outside the U.S., and licenses of intellectual property to foreign persons for foreign use.

Observations: The FDII deduction will provide additional incentive for U.S. corporations to retain ownership of intellectual property in the U.S.

State Implications: Because states do not provide a deduction for domestic source intangible income, we expect that many states will decouple from the deduction.

(5) Base erosion anti-abuse tax. Under the act, deductible payments made by a U.S. corporation to a related foreign party, such as a foreign parent or foreign subsidiary, would be subject to a 10 percent base erosion minimum tax.

Observations: Although generally applying only to U.S.-affiliated group companies with a three-year average annual gross income in excess of U.S. \$500 million, this provision could significantly affect large inbound companies as well as outbound U.S. companies with significant foreign payments.

Payments for cost of goods sold would not be subject to the BEAT provision.

State Implications: Given that this is a new, separate tax calculation, it is likely there would be no state tax effect because the tax would not cause a change to the taxable income of the corporation.

The international tax provisions in the act are complex and usually require the development of advanced calculation templates to model the tax effect of the provisions on current operations as well as the effects of potential changes to a company's operations. ♦

MEMBER NEWS

The Coca-Cola Company Announces New Global Vision to Help Create a World Without Waste



The Coca-Cola Company announced that it is fundamentally reshaping its approach to packaging, with a global goal to help collect and recycle the equivalent of 100% of its packaging by 2030.

This goal is the centerpiece of the Company's new packaging vision for a World Without Waste, which the Coca-Cola system intends to back with a multi-year investment that includes ongoing work to make packaging 100% recyclable. This begins with the understanding that food and beverage containers are an important part of people's modern lives but that there is much more to be done to reduce packaging waste globally.

"The world has a packaging problem – and, like all companies, we have a responsibility to help solve it," said James Quincey, President and CEO of The Coca-Cola Company. "Through our World Without Waste vision, we are investing in our planet and our packaging to help make this problem a thing of the past."

The Company and its bottling partners are pursuing several key goals:

- Investing in the planet: By 2030, for every bottle or can the Coca-Cola system sells globally, we aim to help take one back so it has more than one life. The Company is investing its marketing dollars and skills behind this 100% collection goal to help people understand what, how and where to recycle. We will support collection of packaging across the industry, including bottles and cans from other companies. The Coca-Cola system will work with local communities, industry partners, our customers, and consumers to help address issues like packaging litter and marine debris.

- Investing in packaging: To achieve its collection goal, The Coca-Cola Company is continuing to work toward making all of its packaging 100% recyclable globally.

The Company is building better bottles, whether through more recycled content, by developing plant-based resins, or by reducing the amount of plastic in each container. By 2030, the Coca-Cola system also aims to make bottles with an average of 50% recycled content. The goal is to set a new global standard for beverage packaging. Currently, the majority of the Company's packaging is recyclable.

ExxonMobil and Synthetic Genomics Algae Biofuels Program Targets 10,000 Barrels Per Day by 2025



ExxonMobil and Synthetic Genomics Inc. announced a new phase in their joint algae biofuel research program that could lead to the technical ability to produce 10,000 barrels of algae biofuel per day by 2025.

The new phase of research includes an outdoor field study that will grow naturally occurring algae in several contained ponds in California. The research will enable ExxonMobil and Synthetic Genomics to better understand fundamental engineering parameters including viscosity and flow, which cannot easily be replicated in a lab. The results of this work are important to understand how to scale the technology for potential commercial deployment.

Additional work will be required to advance larger-scale production. Both companies are continuing with fundamental research on algae biology in their laboratories as the field study advances. ExxonMobil anticipates that 10,000 barrels of algae biofuel per day could be produced by 2025 based on research conducted to date and emerging technical capability.

This outdoor research follows the companies' years of fundamental biological research into understanding and improving algae oil production.

"We are excited to take this next significant step as we journey together toward a renewable, scalable, and low-carbon biofuel," said Oliver Fetzter, Ph.D., chief executive officer at Synthetic Genomics. "The progress we are making in the lab toward

engineering highly efficient algae strains that convert sunlight and CO₂ into renewable high energy density biofuel is exciting and warrants continued research about how our technology will scale. Our outdoor algal facility creates a perfect stepping stone from our labs to the greenhouse and to the outdoors to lay the foundation for a large scale commercial deployment of our technology in the future."

Since 2009, ExxonMobil and Synthetic Genomics have been partners in researching and developing oil from algae to be used as a renewable, lower-emission alternative to traditional transportation fuels.

ExxonMobil is engaged in a wide range of research on advanced biofuels, partnering with universities, government laboratories, and other companies.

The Inland Real Estate Group of Companies, Inc. Celebrates 50 Years!



The Inland Real Estate Group of Companies, Inc.

Founded in 1968 and privately held, The Inland Real Estate Group of Companies, Inc. ("Inland") is now one of the nation's largest commercial real estate and finance groups and has held property in 49 states. It literally has owned and managed hundreds of millions of square feet of commercial property and over 73,000 apartment units throughout the United States. In total, Inland has purchased more than \$44 billion in commercial real estate.

Inland had a humble start. In the late 1960s, four Chicago public school teachers, led by Dan Goodwin, CEO, decided to invest in real estate as a sideline to earn money over and above their \$6,000-per-year teaching salaries. So they began by building some homes and small apartment buildings and opened a real estate brokerage company, doing all of it during their off-school hours.

By 1972, after five years of teaching, all four had quit their jobs and were devoting themselves full time to their new venture.

Inland employees, 60 percent of whom are female and 41 percent of whom are officers in various Inland companies, tend to follow the example of their leadership. Most make their careers at the firm, not leaving until retirement.

Silgan Closures Facility Receives Illinois Governor's Sustainability Award



Silgan Closures has been awarded the prestigious 2017 Illinois Governor's Sustainability Award recognizing the plant's efforts designed to improve safety, minimize waste, cut energy consumption and lower emissions. The Governor's Award has been presented by the Illinois Sustainability Technology Center since 1987 to Illinois organizations that have demonstrated a commitment to sustaining Illinois' environmental and economic health.

Silgan Closure's Champaign facility, which uses plastic resins to manufacture container closures, employs Lean Manufacturing practices as well as launching numerous in-house generated projects to support Silgan Closures' goal of becoming a more sustainable company. In 2016, the facility completed a number of projects that led to this award.

The first project included moving from injection molding machines to compression molding machines. By making this switch, Silgan reduced cycle time and energy consumption. Since compression molding depends on a lower plastic extrusion temperature less energy is needed to heat and cool the plastic resin. The new procedure allowed caps to be cooled quickly while still in the mold. These changes reduced greenhouse gas emissions by 2,891 metric tons.

The second project included leasing a train rail site near the facility to bring in resin by rail rather than truck. Silgan made the switch because the volume of deliveries, traffic, driver availability, and truck breakdowns often resulted in the facility receiving resin late or not at all. In making this change the facility reduced the number of shipments, increased on-time delivery, and reduced truck CO2 emissions by more than 2,500 metric tons per year.

The last project Silgan completed was moving off-site warehousing on-site. Silgan stored pallets of closures in offsite ware-

housing approximately 1 mile from the manufacturing plant. Twenty-seven times a week pallets were moved from the warehouse to the manufacturing plant. Silgan decided to add additional warehouse space at the plant to eliminate the freight costs, risk of damage, and longer lead times. In relocating inventory to the plant, the facility saved energy and transportation cost, improved quality control and reduced the operation's emission footprint.

At the same time these projects were being completed, Silgan replaced existing T8 fluorescent lighting in the facility with LED lighting. The LED lights were designed to fit into existing light fixtures, eliminating the need for additional infrastructure. In addition to cost savings, the new lighting reduced the plant's emission footprint, saving 136 tons of greenhouse gas emissions per year, and lamp waste up to 5 times that of ordinary T8 fluorescent lights.

McDonald's Becomes the First Restaurant Company to Set Approved Science Based Target to Reduce Greenhouse Gas Emissions



McDonald's announced it will partner with franchisees and suppliers to reduce greenhouse gas emissions related to McDonald's restaurants and offices by 36% by 2030 from a 2015 base year in a new strategy to address global climate change. Additionally, McDonald's commits to a 31% reduction in emissions intensity (per metric ton of food and packaging) across its supply chain by 2030 from 2015 levels. This combined target has been approved by the Science Based Targets initiative (SBTi).

Through these actions, McDonald's expects to prevent 150 million metric tons of greenhouse gas emissions from being released into the atmosphere by 2030. This is the equivalent of taking 32 million passenger cars off the road for an entire year or planting 3.8 billion trees and growing them for 10 years. The target will enable McDonald's to grow as a business without growing its emissions.

"To create a better future for our planet, we must all get involved. McDonald's

is doing its part by setting this ambitious goal to reduce greenhouse gas emissions to address the challenge of global climate change," said Steve Easterbrook, McDonald's President and CEO, who announced the plan in a video released by the company. "To meet this goal, we will source our food responsibly, promote renewable energy and use it efficiently, and reduce waste and increase recycling."

Magna and Lyft Announce a Multi-Year Partnership to Develop and Manufacture Self-Driving Systems at Scale



Magna, a mobility technology company and one of the world's largest automotive suppliers, and Lyft, North America's fastest growing rideshare company, announced a multi-year collaboration in which the companies will jointly fund, develop, and manufacture self-driving systems. In addition, Magna will invest \$200 million in Lyft equity. The establishment of this partnership is subject to regulatory approval.

This partnership is an industry-first and positions Magna and Lyft to enable the development and manufacturing of self-driving systems at scale. In addition to self-driving vehicles that will be deployed on Lyft's own ridesharing network in the coming years, Magna has the ability to deploy the technologies across a wide-range of use cases to benefit the entire global mobility ecosystem.

"There is a new mobility landscape emerging and partnerships like this put us at the forefront of this change," said Swamy Kotagiri, Magna Chief Technology Officer. "Lyft's leadership in ridesharing and Magna's automotive expertise makes this strategic partnership ideal to effect a positive change as a new transportation ecosystem unfolds."

"Together with Magna, we will accelerate the introduction of self-driving vehicles by sharing our technology with automotive OEMs worldwide," said Lyft CEO Logan Green. "This is an entirely new approach that will democratize access to this transformative technology." ♦

NEW IMA MEMBERS

NEUCO INC.

Downers Grove, IL

RHINO AG, INC. / ALAMO GROUP

Gibson City, IL

ZEBRA TECHNOLOGIES CORP.

Lincolnshire, IL

GREEN VALLEY MANUFACTURING, INC.

Mount Zion, IL

STERLING STEEL COMPANY / LEGGET PLATT

Sterling, IL

CUSHMAN & WAKEFIELD INC

Rosemont, IL

COZZI RECYLING

Bellwood, IL

HARIBO OF AMERICA, INC.

Rosemont, IL

ENEL GREEN POWER NORTH AMERICA

Washington, DC

GENTRY PARTNERSHIP

Deer Park, IL

PIONEER SERVICE INC.

Addison, IL

PINNACLE FOODS INC.

Saint Elmo, IL

FUSION OEM

Burr Ridge, IL

ILLINOIS TOOL WORKS INC.

Glenview, IL

CAMFIL USA, INC.

Crystal Lake, IL

EXCEL FOUNDRY & MACHINE INC

Pekin, IL

PRECISE LASER WATERJET & STAMPING INC.

North Aurora, IL

METALSTAMP INC.

Minooka, IL

OCLOTT PLASTICS

Saint Charles, IL

IVP PLASTICS

Washington, IL

MANOR TOOL & MANUFACTURING COMPANY

Schiller Park, IL

LSC COMMUNICATIONS US, LLC

Mattoon, IL

MARTIN ENGINEERING

Neponset, IL

CHAMPAIGN COUNTY ECONOMIC DEVELOPMENT CORPORATION (CHCEDC)

Champaign, IL

MAGNETIC INSPECTION LABORATORY, INC.

Elk Grove Village, IL

VOESTALPINE NORTRAK

Decatur, IL

AMERICAN FOREST & PAPER ASSOCIATION

Washington, DC

NORTHSTAR METAL PRODUCTS INC.

Glendale Heights, IL

FIND. GET FOUND. ALL IN ONE PLACE.

Welcome to the Most Advanced Manufacturing Marketplace in the World. Period.

This is a game-changer. Imagine accessing an inventory of tens of thousands of manufacturers, and, within seconds, finding ones perfectly suited to fill your supply chain needs. Or be found by potential customers in an instant for your company's unique capabilities. That's the Manufacturers Marketplace. With the most comprehensive search capability, including locations, processes, certifications, NAICS and SIC codes, capacities and much more—the Manufacturers Marketplace can pair you with the right partner or potential customers located in the U.S.—quickly and effortlessly. Every time.

For more information, attend a demo or sign-up today, visit: manufacturersmarketplace.us



Who can help simplify my natural gas purchasing decision?

Constellation, the Illinois Manufacturers' Association's endorsed energy supplier, has the answer to all your natural gas purchasing questions with our SmartPortfolio solution, giving you the options to help you choose the right plan for you. Plus, you get the monitoring, reporting and natural gas market expertise to help you customize an intelligent purchasing strategy. You can manage risk to mitigate the effects of a typically volatile market with **America's energy choice®**.

To learn more about your energy purchasing options, visit constellation.com/IMA.



© 2018 Constellation Energy Resources, LLC. The offerings described herein are those of Constellation NewEnergy-Gas Division, LLC or Constellation NewEnergy, Inc., affiliates of each other and ultimate subsidiaries of Exelon Corporation. Brand names and product names are trademarks or service marks of their respective holders. All rights reserved. Errors and omissions excepted.

Constellation is the endorsed energy supplier to this association, which receives compensation for its promotional and marketing efforts from Constellation.