MANUFACTURER FOURTH QUARTER 2018



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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

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> 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





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THANK YOU

GREGORY W. BAISE, CEO

his is my final President's Report.

The full list of people deserving recognition by me for my tenure at the IMA is far too long for this column, but please indulge me in thanking some of the most important people who have helped me in my 27-year tenure as the president of one of the finest organizations in Illinois and the country.

First, members of my Board and the various chairmen/chairwoman during my tenure. **Barry MacLean** is the first among equals. He will be recognized as the first Manufacturer of the Year Award winner, and the award will be named in his honor. He hired me in 1991 and has helped me and the Association on numerous occasions during my tenure.

Jim Peterson, Calvin "Tink" Campbell, Davis Anderson, George Vincent, Rick Foltz, Albert "Bert" Miller, Andrew Faville and without peer...literally, Janice Christiansen (our first woman to serve as Board Chair) and William Croft were all great leaders. And I must not forget to honor the memory of Mike Holewinski and Ron Bullock, who both passed away recently. They pushed the Association to be better in all aspects of our mission.

Bill Hickey and our current Chairman **Rick Delawder** have and are leading with distinction. For the past three years, they have helped guide me and direct a smooth transition as IMA moves strongly into the future.

While he never served as Chairman, **Paul Darling**, the former President of Corey Steel in Cicero, was an example of great leadership on our Board of Directors. And long-time Treasurer **Jim Pearson** was outstanding in helping us through some of our toughest financial challenges.

IF YOU ASK ME WHAT I'M MOST PROUD OF IN MY TENURE AS THE IMA'S PRESIDENT AND CEO, THE ANSWER CAN BE FOUND IN THE NAMES I'VE MENTIONED HERE: IT'S THOSE RELATIONSHIPS THAT MADE THINGS HAPPEN AND HELPED NOURISH SUCCESS FOR ALL OF THOSE WHO RELY ON THE IMA TO SERVE, PROTECT AND ENHANCE THE MANUFACTURING COMMUNITY OF THIS STATE.

One does not lead a successful organization such as the IMA without having great staff. Our current staff has and will continue to do great things for the manufacturing community. **Mark Frech** has been my right-hand man for 35 years, here at the IMA and in various other capacities. His assistant, **Janie Stanley** has worked with and supported numerous members with their job training needs. **Jim Nelson**, another longtime friend and associate has made a mark on Illinois by making workforce development a top priority issue in front of lawmakers and education leaders.

Boro Reljic, my former government affairs chief, was a workhorse who made sure legislators never forgot the viewpoint of the IMA while lobbying on your behalf. (I could write an entire column on Boro's efforts.)

Gregg Durham has been a jack-of-all-trades, from messaging to helping build our service corporation to where it is a strong force recognized nationally in many communication areas.

Ella Vassor, Dianna Donnaker and now Phil McCall have kept a watchful eye on our finances and your dues money.

Communication and information delivery have changed dramatically in the last quarter century. **Jane Carpenter Frech**, (our first magazine editor) **Karen Klemens, Greg Brooks, Kurt Wiebe, Laurie Metanchuk, Stephanie Henson** and **Anastasia Lowenthal** all helped make tremendous changes in how and what we delivered to you on a daily basis. Kudos to **Julie Starsiak** for her hard work in the Membership Department. And **Tim Klasinski** – our video/graphics/marketing/network-ing/you-name-it utility infielder has lent his can-do expertise to nearly every facet of our operations.

Special mention goes out to **Niels Heemskerk** who guided our Group Insurance program for many years and oversaw the successful conclusion of the program when the winds of the marketplace no longer made association plans viable.

Finally, **Christine Sisk**, **Kimberly McNamara** (both current) and past staffers **Lynda Coxe-LaPorte**, **Linda Bostic**, and **Linda Fiore**, all put up with me as my assistants. They made my day run on time, dealt with items they knew would never get handled if left to me, and worked closely with all of our Board members as the staff liaison. Thank you, ladies!

Gregory W. Baise is President and Chief Executive Officer of the Illinois Manufacturers' Association. He may be reached at gbaise@ima-net.org, or (630) 368-5300.

I would be remiss if I didn't say something about the association world that I have a part of for the last 27 years.

First, association leaders, who I have watched make a difference. At the national level, the National Manufacturers' Association is currently led by **Jay Timmons**, one of the finest people and best association executives I have ever encountered in the business.

At the state level, **Jim Haney**-Wisconsin, **Pat Kiely**-Indiana, **Eric Burkland**-Ohio, my late friend **David Olson**-Minnesota, and **Barry Kennedy**-Nebraska were respected peers and led their state organizations with distinction.

In Illinois, there are too many association leaders to mention whom I respected as they moved their organizations through the landmines of economic upheaval and regulatory trials by fire. But I have to give a shout out to my pal and colleague, **David Vite**, the former President of the Illinois Retail Merchants Association. For over 30 years he worked tirelessly for the Illinois business community and he helped the manufacturers of this state more than many will ever know. I like to point out David's successor—**Rob Karr**—who started with me in government service in the 1990s and was part of the IMA's legislative team before joining IRMA. He is now an outstanding advocate for retailers in this state.

Lastly, a message to you, **the men and women of the Illinois business community**. I leave this job to a gentleman of great talent and vision. He is respected at all levels of Illinois government and I look forward with great excitement to watch his accomplishments for the IMA. **Mark Denzler** will lead this organization to new heights.

I guarantee that I will regret leaving people off this list the minute it is printed for one reason: no one succeeds in this world as a solo act. If you ask me what I'm most proud of in my tenure as the IMA's President and CEO, the answer can be found in the names I've mentioned here: it's those relationships that made things happen and helped nourish success for all of those who rely on the IMA to serve, protect and enhance the manufacturing community of this state.

My goal has always been to leave the IMA a better and stronger organization. The IMA has served the Illinois manufacturing sector proudly for 125 years. It has been my honor and great pleasure to serve your Association as its leader for 27 years.

Thank You! 🔶

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A SEASON OF CHANGE

MARK DENZLER, COO

or everything there is a season" is one of the most quoted phrases of the Bible. These words from the Book of Ecclesiastes represent all of the seasons and important times of our lives as we learn, grow, and evolve.

At the Illinois Manufacturers' Association Annual Luncheon in December, we are celebrating both our long and storied history of advocating for the state's manufacturing sector while undertaking a new beginning, or change in seasons, as we recognize and honor Greg Baise for his 27 years of strong and visionary leadership as he steps down from the CEO post. For the first time in the IMA's 125-year history, we will also be naming a "Manufacturer of the Year" and awarding it to MacLean-Fogg, a fantastic, family-owned company that sets the gold standard.

Throughout the years, the IMA has highlighted our history as the oldest state manufacturing trade association in the United States. More than a century ago, leading Illinois manufacturers including Amsted Industries, Armstrong Tool Inc., Brunswick Corporation, Chicago-Allis Manufacturing Corporation, Deere & Company, Dial Soap, Gutmann & Company and Tablet & Ticket Company met at the Medinah Temple in Chicago and formed the Illinois Manufacturers' Association so that they could speak with a single unified voice.

While some of the issues may have changed over time, we proudly carry on that mission today because manufacturing has built America and improves the lives of people around the world every day. Manufacturing is vital to our nation's continued success.

OUR MEMBER COMPANIES ARE BUILDING THE NATION, FEEDING THE WORLD, PRODUCING LIFE-SAVING PRODUCTS, CREATING POWER AND TELECOMMUNICATIONS, AND MOVING PEOPLE AND PRODUCTS AROUND THE GLOBE.

There is no greater example of this manufacturing ingenuity and innovation than MacLean-Fogg, our first "Manufacturer of the Year." Founded in 1925, MacLean-Fogg offered one lock nut to North America's railroads. More than 90 years later, the business has grown into a worldwide enterprise with thousands of employees serving mining, automotive, telecommunications, and construction. MacLean-Fogg is a leader in operational excellence, innovation & technology, and workforce development in addition to being a strong voice for the manufacturing sector.

But there has been no stronger voice for the manufacturing sector over the past quarter-century than Greg Baise, who has led the IMA during a period of great change in the industry. In speaking with colleagues and business leaders, they describe Greg as "tenacious," "accomplished," "respected," and "a senior statesmen in Illinois government." Throughout Greg's career, he's led on a number of issues. He advocated to deregulate the electric market resulting in billions of dollars in savings for the industrial sector, fought for changes in the workers' compensation system, and reinvigorated the IMA's Education Foundation to help address the growing skills gap and shortage of workers.

We owe Greg a debt of gratitude for his service to the state's manufacturing sector and Illinois government where he served in several capacities including Secretary of Transportation. There is no doubt that Greg's actions and leadership have helped make Illinois a better place.

Personally, Greg has been a friend and mentor for many years and I'll miss interacting with him on a daily basis, but I know that I'll be able to call him when needed to get his advice and counsel when I assume the CEO role in January.

It's a season of change but I'm excited about this next challenge because I love manufacturing and what it means for our state and country. Our member companies are building the nation, feeding the world, producing life-saving products, creating power and telecommunications, and moving people and products around the globe. Manufacturers create wealth and improve our lives every single day, and I'm proud to help represent them.



Mark Denzler is Vice President and Chief Operating Officer of the Illinois Manufacturers' Association. He may be reached at mdenzler@ima-net.org, or (217) 718-3726.

ILLINOIS EXPANDING CLEAN AND RENEWABLE ENERGY ALTERNATIVES

CONSTELLATION

E nergy managers across the country, driven by economic and sustainability reasons, are turning with greater frequency to clean and renewable energy solutions for their energy needs. Corporate and customer interest in carbon reduction initiatives appears to be accelerating beyond what has been a relatively niche market to date.

A growing number of Fortune 100 companies and members of the Illinois Manufacturers' Association with energy intensive businesses have set renewable and clean energy sustainability targets that significantly influence their approach to addressing their energy supply needs. To eration across the state in 2018. Of course, this was not by accident. The Illinois General Assembly and Governor Rauner enacted the Future Energy Jobs Act (FEJA) in late 2016, ushering in a new era for energy policy. Several of the programs within the FEJA account for the recent, dramatic ramp up in renewable build in 2018 as the implementation of those programs has taken shape this year. The FEJA provides new customer rebates to reduce upfront costs of installing rooftop and community solar and allocates significant new funding for wind energy. These programs are designed with an eye toward incenting the development of in-state renewable supply and generation options.

Constellation Supporting Sustainability

Constellation, the IMA's endorsed energy supplier, is helping its customers with a variety of products and energy market intelligence to help build companies' clean and renewable energy presence with distributed energy solutions. Constellation is happy to discuss standard supply options that involve carbon-free, renewable energy or some combination thereof. Constellation can also help manage end-to-end development, finding the optimal project and assisting in on-site, behind-the-meter customer sited solar installations that are

THERE IS A GREAT DEAL OF OPPORTUNITY FOR ILLINOIS BUSINESSES TO AGGRESSIVELY REDUCE THEIR CARBON FOOTPRINT. THE IMPLEMENTATION OF THE FEJA IN ILLINOIS HAS ENERGY MANAGERS AND OTHERS INVESTIGATING SUPPLY AND GENERATION OPTIONS.

that end, more and more companies are investing in renewable projects. There is evidence of an additional evolution in the business community. A growing portion of the business community is looking to not only purchase renewable energy certificates equivalent to all their power needs, but also for new build renewable projects or other offerings that include clean energy supply. Specifically, businesses are turning to supply products such as Emission-Free Energy Certificates (EFECs) from nuclear energy or curtailment resources like battery storage and demand response to ensure they are doing their part to support clean energy resources.

Illinois Experiencing Rapid Growth

These trends are particularly evident here in Illinois, where we have seen the proverbial floodgates open for solar genresources. The programs are intended to grow Illinois' supply of solar energy from less than 60 megawatts (MW) of installed solar capacity on the grid now to about 3,000 MW by 2030.

You've probably noticed when you read your local newspaper that it seems that every week, yet another county zoning board has approved a solar development, and more are expected to come. We are also seeing that an ever-increasing number of businesses, particularly those with large roof space (typically greater than 100,000 sq. ft.), are finding that the proposition to install on-site solar makes good business sense.

In short, there is a great deal of opportunity for Illinois businesses to aggressively reduce their carbon footprint. The implementation of the FEJA in Illinois has energy managers and others investigating unique to every customer. They have developed 348 MW since 2007, with a total of 450 installations around the country, helping to reduce CO2 emissions by approximately 4.23 billion pounds. These projects not only help to promote sustainability, but also provide businesses with budget certainty and simplify implementation and operations. To learn more about how Constellation can help you develop a project that supports your business goals, contact Constellation today by visiting associations.constellation.com/IMA.

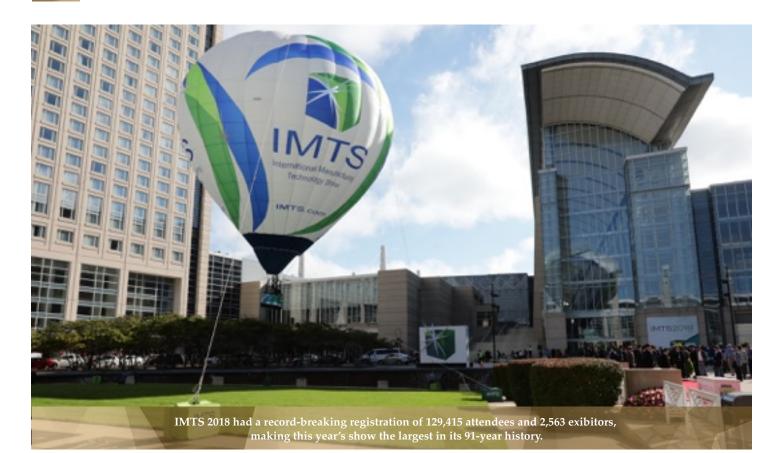
We encourage you to work with Constellation to take an active role in developing a customized energy management strategy. As your energy needs evolve, Constellation can help you navigate the market while maintaining budgets in an unpredictable environment.

Constellation – 24/7 access to billing and energy usage data

About the Author: John Slocum is the Senior State Government Affairs Manager at Exelon, and can be reached at john.slocum@constellation.com, or (630) 301-0909.

INNOVATION, TECHNOLOGY, & SECURITY

ROBUST MANUFACTURING AND DIGITIZATION: IMTS 2018



ooking at a picture of the Grand Canyon versus peering over the rim is like listening to stories about the International Manufacturing Technology Show (IMTS) and attending the show. Already the largest manufacturing show in North America, IMTS 2018 was the largest in the show's 91-year history. It drew a record registration of 129,415 people and featured 1,424,232 sq. ft. of exhibit space made up of 2,123 booths and 2,563 exhibiting companies.

Illinois manufacturers and job shops of all sizes attended – and exhibited – at IMTS 2018. About one-sixth of all those at IMTS hail from Illinois, including 10,947 registered visitors and 10,254 exhibitor personnel. IMTS showcases a unique mix of technologies that can boost productivity now while exposing them to concepts they might need five or 10 years in the future. The show is noted for emphasizing new ideas, not standard products.

"Connectivity, the digital transformation

of manufacturing, automation, additive manufacturing and a strong economy drove record numbers at IMTS 2018," said Peter R. Eelman, AMT's Vice President – Exhibitions & Business Development. AMT – The Association For Manufacturing Technology – owns and produces IMTS.

Growing Show

IMTS 2018 occupied all of McCormick Place's four buildings, a first for the venue. Notable growth areas at IMTS 2018 included an expanded Additive Manufacturing Pavilion that featured 51 exhibitors and covered 31,550 sq. ft., the strong partnership with HANNOVER MESSE USA and its four co-located shows and 510 exhibitors, and an expanded Smartforce Student Summit that drew more than 24,000 students, parents and educators — 7,000 more visitors than in 2016.

Other changes included using all levels of the East Building, with the Controls & CAD-CAM Pavilion expanding from Level 3 to Level 2, as did the co-located show HAN-NOVER MESSE USA. IMTS organizes the show into 10 technology pavilions, which enables visitors to compare similar technologies in one area.

Recognizing the pace of innovation, IMTS 2018 featured, for the first time, two AMT's Emerging Technology Centers (ETC) in the North and West Buildings. The ETCs explore current and over-the-horizon technologies for additive manufacturing and digital connectivity, the industry's most explosive growth areas.

To show its speed and versatility, Oak Ridge National Laboratory (ORNL) created a "die-in a-day" demonstration at the additive manufacturing ETC. Traditionally it takes a minimum of six weeks to make molds and costs tens of thousands of dollars. Using additive technology, ORNL demonstrated the ability to go from digital design to laser 3D scanning of a finished part in less than 10 hours.

The digital ETC featured the debut of ATHENA, the industry's first voice-operated assistant, which enabled visitors to control a 5-axis CNC with voice commands. Cisco demonstrated industrial solutions for cyber security, while an automated cell linked a CNC, a robot arm and a CMM that all utilized the MTConnect standard.

"Simple connectivity and software communication overcomes a major hurdle for job shops that focus on high-mix, low-volume and even custom parts," said Paul Gray, R&D Manager for Hurco, an Indianapolis-based provider of CNC machines, controllers and software.

"Intelligent systems and decision-making based on data rather than instinct are transforming how manufacturers and job shops operate," said Eelman. "Digital technology creates exponential growth, and the velocity of change was palpably different at IMTS 2018."

Driving Growth

With more than 21,000 Illinois registrants and exhibitors on hand, the show provides an opportunity for state and local politicians to address constituents. Illinois Gov. Bruce Rauner, who previously attended IMTS as a private citizen, addressed attendees on Sept. 12. "There are four reasons that manufacturers from around the world are coming to the state of Illinois to build great products: people, transportation, innovation, and energy. We're driving great manufacturing growth in this state," he said.

Rauner noted that Illinois is the 17th largest manufacturing economy in the world, generates 600,000 manufacturing jobs, produces \$100 billion in manufactured products and creates the "most exciting and dynamic part of prosperity for everyone."

The local influence of IMTS extends beyond the manufacturing community. The Miles for Manufacturing 5K fun run and fundraising event, held during the third day of the show, drew a record 486 runners. The 5K run generated almost \$28,000 in proceeds, which will be used to acquire a STEM kit from Festo Didactic and donate them to 14 STEM middle schools in the Chicago area.

Even more significantly, the show gave Illinois students the opportunity to experience 25 different job functions available in manufacturing (view career pathways at AMTonline.org). The IMTS 2018 Smartforce Student Summit, a portion of the show dedicated to education, broke its previous record with 24,469 registrants, 7,000 more than the IMTS 2016 event.

"The national conversation around STEM education has had a positive influence on our ability to attract more schools to the Student



The IMTS Smartforce Student Summit enabled students to experience 25 different job functions available in manufacturing.

ability to attract more schools to the Student Summit," said Greg Jones, Vice President of Smartforce Development for AMT.

Technical Conferences

In addition to thousands of exhibits, IMTS 2018 featured nine conferences that provided visitors with more than 142 hours of educational programming. The IMTS Conference attracted more than 850 people and featured 71 different sessions, each selected by a review board.

With many conference attendees looking for ways to further their "digital journey," connected/digital manufacturing technology sessions were among the most popular.

A co-located event, the Additive Manufacturing Conference attracted more than 575 attendees and included both current and future adopters of additive technology looking to deepen their knowledge base.

Based on feedback from the job shop and contractor community, IMTS created a program to address the challenges they face to help diminish their daily struggles. Presentations included a seminar on the unending search for qualified labor hosted by four job shop owners.

"Our new Job Shops program attracted 405 participants," said Michelle Edmonson, Senior Director – Exhibitions Operations & Marketing, AMT. "With such strong interest at this show, we plan to continue our focus on jobs shop at IMTS 2020."

A Must-Attend Event

Andy Peterson, Production Manager at Industrial Molds of Rockford attends IMTS to find solutions that improve the company's competitiveness. Industrial Molds keeps work in the USA through its use of advanced technology, including automated CNC and EDM (Electrical Discharge Machining, a common method for mold production) work cells with unattended running capabilities.

"To the best of my knowledge, we have the most productive automated EDM cell in North America," said Peterson. "We created this cell after visiting with exhibitors at IMTS. By running unattended work cells, we keep our labor costs in line without reducing head count, so we can compete against Canada, China, Portugal or anywhere."

Peterson has attended IMTS since 2008. "I keep going back because we constantly need new ideas," he said. "For IMTS 2018, I'm really interested in seeing machine monitoring technology with MTConnectTM. That's really growing, and I'd like to see what's available from the software side."

Introduced at IMTS 10 years ago, MT-Connect is an open-source communication standard that is now one of the major technologies that support the adoption of IIoT solutions. IMTS 2018 featured hundreds (and probably thousands) of connected technology demonstrations.

"We had very astute attendees coming to IMTS 2018," says Eelman. "They are more educated about the health of their business and know that connectivity, digitization, automation and knowledge are part of the solution. IMTS takes all this, puts it under one roof and fosters connections. By the time we reach IMTS 2020, what visitors learned this week will have already changed their operations."

SOUTH DAKOTA V. WAYFAIR: 3 MISCONCEPTIONS DEBUNKED

RSM US LLP

S ince the U.S. Supreme Court (the Court) issued its decision in *South Dakota v. Wayfair* (*Wayfair*), many companies have viewed the decision as a response to the changing retail environment and growth of ecommerce; and while that may be the catalyst, the decision goes beyond retail and selling online.

In Wayfair, the Court eliminated the long-standing sales and use tax physical presence nexus requirement; in part, by recognizing how different today's marketplace is now than it was in 1992. This shift in focus from physical to economic presence represents a seismic shift for how a business determines whether sales tax nexus is established, and is a real game-changer for all businesses making sales or purchases across state lines. Manufacturers and distributors, however, are not immune from the decision simply because they sell for resale or are otherwise traditionally exempt from sales and use tax. These companies must also seek to adapt to a new sales tax environment.

Below are several common misconceptions of how the *Wayfair* decision affects manufacturers.

Myth: The *Wayfair* decision only affects online sellers.

Reality: While the focus of *Wayfair* has understandably targeted retailers and e-commerce companies, there is a significant impact to manufacturers and wholesalers. The following situations for manufacturers and distributors should be considered:

1. Sales tax filing requirements. For the states that have adopted economic sales tax nexus provisions, the test to determine economic nexus is based on the sales revenue or number of transactions into the state – for example, \$100,000 in sales or 200 separate transactions. Those economic nexus provisions typically do not address whether the sales, receipts, or revenue requirements include nontaxable or exempt sales. Until the states provide guidance on the inclusion of nontaxable sales, manufacturers and distributors should consider collecting

resale or exemption certificates on qualifying sales. Additionally, those businesses may have a registration and filing compliance requirement, even if no sales tax is due on the transactions. For a manufacturer or distributor that typically does not file multistate sales tax returns, filing returns in potentially dozens of jurisdictions will create a new administrative burden and challenge for the tax department.

2. Sales Tax Exemption Certificate Management. A sale is taxable unless the customer provides a properly completed tax exemption or resale certificate. For the manufacturer or distributor, that historically meant that they obtained the appropriate certificate in their home state. Because of economic sales tax nexus and the resulting state tax registrations, the manufacturer and distributor may need to obtain state-specific certificates for the new states registered because of economic nexus. This can be particularly challenging when the states do not have similar exemption certificate requirements, such as expiration dates for certificates or other compliance requirements.

3. Accounts Payable. Most of the focus of economic nexus to date has been on the sales side, but economic nexus legislation could have a significant impact on the purchase side for a manufacturer or distributor. Suppliers will also be subject to these rules and many more suppliers will begin to charge sales tax on their invoices. Accounts payable personnel will need to be vigilant in determining if the sales tax is charged correctly and if it is not a taxable purchase, determine whether an exemption certificate or resale certificate should be provided to the vendor to exempt the sale.

Additionally, businesses have accrued use tax based on the purchase coming from certain vendors, and when those vendors begin to collect sales tax, procedures should be in place to mitigate any chance of double taxation.

Myth: The *Wayfair* decision does not have long-term consequences.

Reality: There are 46 jurisdictions that

impose a general sales and use tax. Not all of them have responded to the *Wayfair* decision, but it is anticipated that almost every state will provide a legislative, regulatory, or policy response. It is a very fluid situation and states continue to respond rapidly. While South Dakota's threshold is \$100,000 in sales or 200 transactions, it is not a benchmark. Managing the changing rules across many jurisdictions is complicated, but it is necessary.

Myth: Companies do not need to do anything until all states have implemented their own legislation economic sales tax nexus.

Reality: Manufacturers need to understand their company's position and implement a process that aligns with how *Wayfair* is changing the market. There is preventative maintenance that manufacturers can do now to help them in the future. Companies should consider three key items now:

1. Length of time since nexus evaluation. If it has been awhile since the last nexus footprint evaluation, this is an excellent time to do so. Gain a thorough understanding of where you are currently filing sales and use tax returns. Evaluate sales and transactions by state and identify potential filing obligations post-*Wayfair*.

2. State registration. Register in states where nexus requirements are met, so statute of limitations are not running.

3. Understanding of state gross receipts taxes. A handful of states impose gross receipts-based taxes. Historically, having some sort of physical presence served as the basis for nexus, even for some gross receipts taxes. However, now states are likely to follow the *Wayfair* decision and use similar economic nexus thresholds rather than a physical presence standard.

Understanding how nexus may affect manufacturers and distributors is extremely important. The nexus landscape is changing very quickly and multi-state businesses with questions about compliance under the new nexus landscape should speak to their tax advisers on how to diligently track and comply with these new provisions. ◆

Constellation – Visit www.constellation.com/IMA

About the Author: Bob Kolosky is a Senior Tax Director at RSM US LLP, and can be reached at bob.kolosky@rsmus.com, or (312) 634-4622.

TYPES OF EMPLOYEE STOCK OPTIONS

KUTCHINS, ROBBINS & DIAMOND, LTD.

The items below detail various types of U.S. stock options that can be made available to staff and management. An interested company will need to have a valuation performed annually to determine the value of the company's stock in order to properly account for any of the options below.

Restricted Stock Units (RSUs)

• The employee has the right to purchase shares at fair market value or a discount, or they may receive the shares at no cost.

• The employee doesn't take possession of the shares until specified restrictions lapse (i.e. vesting period, company or individual performance goals are met).

• RSUs are settled in shares, not cash.

• The Employee can make a Section 83 (b) election, which allows for them to be taxed at the ordinary income tax rates on the gain of the award at the time of grant.

• The employee decides not to make the 83 (b) election; they must pay ordinary income tax rates on the difference between the amount paid for the shares and the fair market value at time of lapse of restrictions.

Phantom Stock and Stock Appreciation Rights (SARs)

• **Phantom Stock** – Provides a cash or stock bonus based on the value of a stated number of shares, to be paid out at the end of a specific period of time.

• **SARs** – Provide the employee with a cash or stock payment based on the increase in the value of a stated number of shares over a specific period of time.

*Both are bonus plans that don't grant stock, but instead the right to receive an award based on the value of the company's stock.

Employee Stock Purchase Plans (ESPPs)

These are formal plans to allow employees to set aside money over a period of time, commonly out of taxable payroll deductions, to purchase stock at the end of the offering period.

Incentive Stock Options (ISOs)

Enable the employee to defer taxation on the option from the date of exercise until the date of sale of the underlying shares, and also pay taxes on their entire gain at capital gain rates, rather than ordinary income tax rates. Certain conditions must be met in order for the employee to qualify:

• The employee must hold the stock for at least one year after the exercise date and for two years after the grant date.

• Only \$100,000 of stock options can first become exercisable in any calendar year.

• The exercise price must not be less than the market price of the company's stock on the date of the grant.

• Only employees can quality for ISOs.

• The option must be granted pursuant to a written plan that has been approved by shareholders and that specifies how many shares can be issued under the plan as ISO and identifies the class of employees eligible to receive the options. The options must be granted within 10 years of the date of the board of directors' adoption of the plan. • The option must be exercised within 10 years of the date of grant.

• If, at the time of the grant, the employee owns more than 10 percent of the voting power of all outstanding stock, the company, the ISO exercise price must be at least 110 percent of the market value of the stock on that date and may not have a term of more than five years.

Nonqualified Stock Options (NSOs)

• If the employee exercises, they will be taxed on the difference between the exercise price and market value of the stock at the time of exercise as ordinary income, even if the sharers are not yet sold. A corresponding amount is deductible by the company.

• There is no legally required holding period for the shares after exercise, although the company may impose one.

• All subsequent gains/losses on the shares after exercise would be taxed at capital gain rates.

Employee Stock Ownership Plan (ESOP)

A qualified, defined contribution plan that invests primarily in employer stock.

• Shareholder has the ability to sell any percentage of the company, while maintaining operational control.

• An S-corporation is exempt from federal taxes.

• The sponsor company makes contributions to the ESOP that are deducible pre-tax as an employee benefit expense (certain limitations may apply).



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MICROGENERATION, BLOCKCHAIN, AND THE SMART GRID

HEPLERBROOM LLC

I f you have spent much time with sailors, you know that it does not take long before the discussion turns to your daily electrical consumption and how many amp-hours you have in your boat's battery bank. I admit that I could have had a better understanding of this concept when I moved my family aboard a sailboat to live last year. I expected to put limits on when the Xbox could be played like most parents, but I did not expect those limits to revolve around how many amps our solar array was generating.

On our boat, we were fortunate to have a mix of solar and wind electrical generation and electricity from the alternators when running our engines underway. We generally had all of the energy we needed to navigate the boat and stay connected with family, friends, and work via our cell phones, laptops, tablets, and yes, even the Xbox. It was an extraordinary education on how the actual power you need to consume is generated, stored, and delivered. It was also an education that has continued to interest me after transitioning back to land.

Whether living on a sailboat, in an offthe-grid cabin, or in a condo in downtown Chicago, our society is reliant on electricity. It only takes a Midwest storm to leave you without power for a couple hours to remind us how reliant we actually are. But, what if Illinoisans became their own generators? In 2017, the Illinois Commerce Commission launched its NextGrid project to "to identify, research, and develop options to address issues facing Illinois' electric grid, its users, and the utilities who operate it." NextGrid may lay the framework for some people in Illinois to transition from just customers to generators, and blockchain technology may provide the technology to assist in this transition.

According to the U.S. Energy Information Administration, Illinois electric customers are mostly dependent on nuclear energy and coal for the majority of their energy generation. Most of these electric generation facilities are decades old, and both forms face obstacles if new generation facilities were to be erected. Nuclear energy faces not only massive cost prohibitions but also uncertainty regarding the storage, security, and disposal of spent nuclear fuel. Coal faces continued challenges relating to emissions and pollution. Both nuclear and coal also utilize the traditional centralized grid to deliver energy to customers.

There are many reasons why our nation's electrical grid needs to be modernized whether it is to minimize the threat of cyberattacks against our utility companies or to improve efficiency from sending electricity long distances to end-users. One concept to modernize our electric grid is to transform a portion of our electrical generation from a centralized, power plant-to-customer model to a decentralized customer-to-customer model. This method could allow end-users to transition from not only being customers but also to being microgenerators.

Upon moving back into a house, I find myself looking at my garage with its roof perfectly facing south and seeing a bunch of wasted space. That space consists of approximately 400 square feet, which if covered with solar panels, could support an array of approximately 5 kilowatts of electrical generation potential. Such a system could result in the generation of over 25 kilowatts of usable power per day. Some people may not have the luxury of an unobstructed south-facing roof to install a solar array. Others may not like the look of a large solar array on their house or garage. Thanks to innovation in photovoltaics, soon consumers may have access to photovoltaics integrated into building materials with the look of traditional shingles, siding, or paint, further assisting in the development of a decentralized grid with peer-to-peer electrical delivery with very little impact on traditional home aesthetics.

Manufacturers are poised to benefit from a transition to a decentralized electric grid. Not only will consumers need options from the photovoltaics, wind generators, and batteries themselves but also to the components that will integrate those components into the grid. Qualified contractors will be needed for the proper installation of such items. There will also be the need for new devices that will allow consumers direct access to "smart devices" such as smart thermostats, electric car chargers, or smart electric meters. These devices will give consumers live-time consumption (or generation) data. Innovations in storage technology may give rise to electrical backup solutions not widely available today through improved battery technology. Even equipment in traditional electric generation facilities may be poised for updates to react quicker and more efficiently in order to respond to a more decentralized grid.

Today, cyberattacks to the existing electric grid are a very real threat. Hackers are constantly looking for ways to exploit vulnerabilities. If our grid is to be transformed to a decentralized grid, there may be even more nodes to attack, which will demand attention, but such a design may also allow for more stability and redundancy. Either way, new technologies to create safeguards that prevent decentralized systems from being hacked will be needed.

A decentralized grid may also allow for the creation of a consumer-to-consumer energy market that would bypass the traditional energy that exists today with middlemen buying and selling energy. One method to create such a market would again be through the use of blockchain technology. People often confuse blockchain for the cryptocurrency, Bitcoin. Although the two are related, they are not the same. Bitcoin is a cryptocurrency that is built upon blockchain technology. Blockchain, however, has applications well beyond cryptocurrency.

Blockchain is a decentralized network of open ledgers. These ledgers are shared with everyone on the network. Consider the sale of electricity. In this hypothetical, the actual transaction of purchasing the electricity is the creation of a "block" to be placed in a chain of permanent blocks. Once the block is created and before the block can be added to the chain, a cryptographic puzzle must be solved. Once solved, the results of the puzzle are then distributed to all of the other members of the network. The other members of the network verify the calculation, which allows the block to be added to the chain. The benefit of this technology is that all of the information is open and transparent, and the information in the block can never be changed, giving rise to a secure and auditable transaction.

Therefore, you could apply blockchain to the microgeneration concept. Whether you are a residential home with a small solar array on your garage, the owner of a

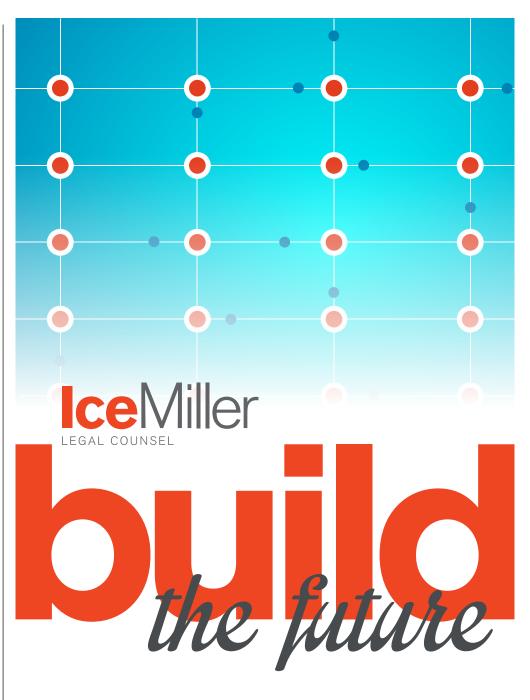
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small manufacturing business with a large solar array on top of your warehouse, or a farmer with a combination of solar and wind generators throughout your property, the energy generated can become part of a decentralized grid and recorded by a smart meter, which creates the "blocks." Imagine you are a member of a condo association with a solar array on top of the building. Your energy production may be used to supply the condo members with that electricity. Smart meters can instantaneously communicate both the need and supply of electricity, recording the transactions to the blockchain contemporaneously. The transaction is open for everyone to see, and no middleman was needed for the transaction thereby reducing transactional costs.

One reason blockchain technology may be useful in this scenario is the ability to complete the transaction through smart contracts. For example, when your smart meter completes the transaction with your neighbor's smart meter, the meters negotiate the terms of the contract and perform the obligations under the contract without the involvement of middlemen who may increase transactional costs. Once performance of the contract is complete, the transaction is registered on the blockchain's ledger. Further, upon the performance of the contract, whether through tokens or some other currency, the payment would be instantaneous, thereby reducing costs associated with invoicing and collecting. Admittedly, questions remain as to how such a market would work, but the market economy may dictate with current utilities involved in facilitating such trading.

Another benefit of blockchain technology relates to the use of smart contracts. Blockchain technology is premised on the concept of transparency. Therefore, it can be used to verify a party's identity through cryptographic keys. As mentioned above, keeping the electrical grid secure is of extreme importance. Therefore, not only can blockchain work to verify identity but also prevent threats from accessing the network. Programming security protocols utilizing the strongest encryption available will be crucial. Adoption and adherence to strong security measures will actually create a more secure grid that is less vulnerable to attack.

Modernization of the electric grid is coming, which will create many opportunities for manufacturers. In addition, both individuals and small businesses may be able to partner with utilities to be players in a new decentralized grid, using innovative technology like blockchain to play an important role in its implementation.



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LOOKING BACK: 27 YEARS OF LEADERSHIP AT THE IMA

AN INTERVIEW WITH GREG BAISE

ive us an overview of your journey in being chosen as President and CEO of IMA in 1990.

During the 1980s, I had worked in a variety of positions in Governor Jim Thompson's administration, most notably as Secretary of the Illinois Department of Transportation. I took a leave from IDOT in 1984 to head up President Reagan's Illinois campaign, and then later was the campaign manager for Thompson's re-election in 1986. I'd always been interested in politics, but by the end of the Thompson campaign, I was hooked. So, in 1990 I left the Thompson administration to run for State Treasurer against Democrat Pat Quinn.

After winning races for others, losing my own election cured me from ever considering being a candidate again, but didn't dampen my enthusiasm for all things dealing with public policy and political practices. But, frankly, I wasn't sure which direction to take. Living in Springfield at the time, I was offered a few lobbying contracts, but that didn't really seem like the right direction for me. Then, out of the blue, I got a call from a former colleague from the Thompson Administration who told me that IMA's President Art Gottschalk was retiring and they were searching for a replacement. Would I be interested?

Working in Springfield, I was well aware of the organization other than its impeccable reputation as being pro-business group with a laser focus on manufacturing issues. I threw my hat in the ring and met an incredibly impressive Board leadership team headed up by Barry MacLean of MacLean-Fogg. We hit it off immediately and a few weeks later I got the call offering me the job.

What has changed most in the 27 years you've served as IMA's President and CEO?

The most dramatic difference from 27 years ago is how important modernizing education has become to providing manufacturers with a skilled workforce. The IMA was always known for its support for education in general, but as manufacturing has evolved, the skills needed for workers have grown exponentially. That's one of the reasons I chose to revamp the IMA Education Foundation, and why we devote so much of our time to building programs of study beginning in secondary schools that align to post-secondary education. Looking forward, the transition to digital manufacturing is going to continue to increase the skill levels necessary for a successful manufacturing employee, so in many ways, our job has just begun.

On a more pragmatic level, how we communicate with members has gone through tremendous upheaval. A quarter-century ago, we had a number of printed publications that we produced at regular intervals. Fax machines were the de facto quick communications, and not all of our members had the capability of receiving faxes. Email was in its infancy – it would still be years before electronic communications reached critical mass. The IMA didn't have a website, mobile phones were an expensive luxury.

Today, we get the word out on critical issues in seconds rather than weeks. Email has replaced the majority of all communications, and the internet has opened the door to instant communications. Overall, our ability to alert our members about crucial votes in the General Assembly or keep them apprised of vital legislation pending in Springfield is a good thing for all.

What do you consider your proudest accomplishment for the IMA?

That's easy: the deregulation of electric utilities for the Illinois business community in 1997. It was a very difficult and complex issue to negotiate, and we had real divisions within manufacturing ranks between smaller companies and larger ones about the right way to do it. It took two long years of work and negotiations to find a formula that worked and was passable by the General Assembly. But the product of all that work is evident in the fact that Illinois remains the state with the overall cheapest per-kilowatt hour electricity producers in the Midwest. The reason for that is simple: competition was allowed to operate in the electric utility marketplace. We argued that opening up the market would drive costs down and the results proved the point: Illinois businesses have saved billions of dollars under this system.

I do have some caution and concern about the fact that forces that oppose free market principles in this arena are trying to change the



law and re-regulate the electricity market. I know that the IMA and other business groups will be steadfast in opposing that change. There's too much at stake.

And what has been your biggest disappointment?

The 1994 national Republican sweep saw pro-business lawmakers in Springfield controlling both chambers of the State Legislature and the Governor's Office for the first time in recent memory. We entered the spring legislative session in 1995 geared up to make great progress on pro-business reforms, starting with the demise of the old Scaffold Act—a regulation that was supposed to disappear with the advent of Workers' Compensation but ended up being boondoggle for big labor and trial lawyers that allowed many to double-dip into the injured worker recovery system. Labor fought tooth-and-nail to protect that perquisite, but we won.

Other goals were achieved—including a promising start to Chicago school reforms—but a combination of political caution and conflicting interests kept the most sorely needed Workers' Comp and tort reforms off the agenda to be addressed after the next election. Of course, that next election saw the political pendulum swing back in the other direction, led in many ways by Chicago teachers' unions who were aghast at the possibility of education reforms, and we lost our chance to fix tremendous wrongs.

It's like Miami Dolphins' quarterback Dan Marino—who got to the Super Bowl his rookie year and lost the Big Game—but everyone assumed he would be back again. That opportunity never came to him. Similarly, pro-business lawmakers had an opportunity for sweeping economic changes in the mid-90's that have not been repeated since. It was a hard lesson for many to learn. Even though the 2018 elections results make it seem unlikely, the business sector **will** get that kind of chance for real change again. My recommendation is to pounce on it.

What's your view of the future of public policy for manufacturers in Illinois?

Depending on your viewpoint, you could argue that the glass is half-full, or half-empty.

On the half-full side, manufacturing in Illinois continues to be robust, with many opportunities and advantages available, including our central location, ability to transport goods anywhere in the world and a workforce that many other states would love to have.

On the half-empty side, there are forces at work every day who oppose businesses in general—and manufacturers in particular—to operate profitably in this state. The business climate as I leave this job is more dangerous than it was just a few years ago, with unfathomable debt choking the state and a majority in Springfield who don't see the connection between prosperity and public policy.

What are your plans now that you're stepping down as IMA's President and CEO?

I'm going to continue to operate IMA's for-profit Xpress Professional Services, Inc.

XPS is a political fulfillment and public affairs management operation that includes polling, direct mail design and production, TV and radio production and placement, digital advertising and public relations expertise. I'm proud to say we've made a mark in Illinois and beyond, and have been on the cutting edge of many areas such as automated polling and digital media placement.

Of course, XPS also provides a sharp-edged bully pulpit for supporting pro-business candidates, pro-business issues and—when necessary—to point out where politicians come up short in supporting employers and job growth. The IMA has never been shy about its support and opposition of forces in our political system, and I have plans to expand that advocacy for economic freedom and growth.

I recognize the success that happens when the business community becomes fully involved in a public policy issue. Too often, business leaders either don't have the time or cannot otherwise engage in the process for a variety of reasons. That's why it's important to have an arsenal of tools, ideas, people and abilities to challenge those who fail to recognize the benefits of the free enterprise system.

We have the ability to communicate that pro-business message, and we're going to use it. \blacklozenge

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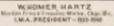


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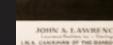


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Thank you to the individuals who have dedicated their time and knowledge to help guide the IMA through the last 125 years.





THE MOST POWERFUL BUT LEAST-USED TOOL TO INSPIRE EFFICIENCY

tandard Work is one of the most powerful but least used Lean tools we have. By documenting the current best practice, Standard Work forms the baseline for kaizen and/or continuous improvement events. It is important to understand that a baseline standard is created initially and then improved upon (Continuous Improvement), the new standard becomes the baseline for further improvements, and on and on. Improving Standard Work is a never-ending process as are all Lean events and actions. It is the project that never ends. In constantly employing the "Continuous Improvement" philosophy, in time you will change the culture of the area in which the techniques are being deployed. There is no time frame in which this change will be accomplished; too many factors will affect this. But it does take an inordinate amount of discipline and dedication to be successful. A good indicator that the cultural change has been made is when you hear an employee saying, "This is the way we've always done it."

Basically, Standard Work consists of three elements:

1. Takt time, or the rate at which products must be made in a process to meet customer demand.

2. The consensus best work sequence in which an operator performs tasks within takt time.

3. The standard inventory levels in Raw, WIP and FG, required to keep the process operating smoothly.

Establishing Standard Work relies on collecting and recording data that defines the sequence or order of events to accomplish a task in the required takt time. These tasks are analyzed by a team typically made up of engineers, CI personnel, supervisors and the operators responsible for the area in question. The idea is to draw on the diverse knowledge and experience of all to design the process and to make improvements in the process.

Benefits

The benefits of Standard Work include documentation of the current process for all

shifts, reductions in variability, easier training of new operators, reductions in injuries and strain, and a baseline for improvement activities.

Standardized work answers the 5W+1H of a process – the who, what, when, where, why, and how. Who operates the process, and how many people does it take? What does the final product look like, what are the quality check points, what are the tools required to complete the job? When is a part completed and ready for the next step (how long should the cycle time and takt time be)? Where is this process completed and what does this location look like (standardized work cell, point of use storage of tools, etc.)? Why is this step necessary or value-added, or why is this a quality check point?

And the "how" is the process that is followed, within the time and resource constraints. Overall, the process should not be ambiguous.

Once these questions have been answered, depending on the requirements and type of organization following this process, different strategies of implementation can be followed. The three main strategies are:

1) Process Management – A continuously running cross-functional group with ownership and measurement of the core support processes. It is important that not only with this strategy, but those to follow, to draw on the resources inside and out of the area or organization that are both familiar with and not, the processes they are responsible for.

2) Process Improvement – This group would focus on problem solving aimed at getting to the root cause of an issue and not working at the surface of an issue, or "fighting fires." People get a sense of accomplishment from "fighting fires" and keeping things running rather than looking for root cause solutions. It can be difficult at times to get the point across that it might be better for the process to run without failure or interruption rather than constantly down trying to fix a problem that is being caused by something else. In process improvement, the DMAIC roadmap is typically used to get to a solution. The DMAIC process is: • **Define:** Define the goals you want to accomplish that are consistent with the companies short and long term strategies.

• **Measure:** Measure the current process to set a baseline that can be used to determine the success of failure of an implemented strategy.

• Analyze: Identify the sources of variation from what the defined short and longterm strategies are. Do not turn the "Analyzation Process" into a science experiment. Analyze the data, develop the next step of the process, "Improve" and make the change by performing kaizen or rapid improvement event.

• Improve: After the sources of variation are analyzed you will improve, optimize and implement. As the improvement is put in place it must be measured to see the results for partial or full successes or failures. If at this time you still have not achieved your goal to satisfy the short and long-term strategies, start back again to analyze and improve. On occasion you may come across a situation where the definition or "Define" element may need to be re-visited due to process capability. The technology you currently have in place may just not be capable, which would start you down a different DMAIC path. If the solution proves out and you are meeting or exceeding the short and long-term goals you wou ld then move to the control phase.

• **Control:** Controls are put in place to sustain what has been implemented. Control strategies will help to correct any variances before they result in defects.

3) Process Design/Redesign – This is the creation of a new process or design to meet the changing demands of products, customers and competition. This particular strategy is extremely important when dealing with an innovation and growth strategy so critical to companies dealing in a marketplace of instant needs, wants and gratification. This strategy also follows the same basic DMA-IC process with a variation in the last two steps. The last two steps are made up of the following:

• Design: The details, optimization and

Constellation – Provides products and services to manage energy costs and risk over time

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plans for variation must be developed. Once done, simulations may be required to determine performance against what was designed vs. actual. Based on results you may start back through the first phases of the process or move to the verify stage.

• **Verify:** Verify the design, set up pilot runs, implement production processes and hand over to the process owners.

With all that has just been discussed it should be noted that Standard Work is not hard and fast. Standard Work is a collection and implementation of the best practices known at that point, and using a diverse team to help create them. Because improvements in quality, safety, and productivity will appear from time to time the Standard Work is to be updated via work instruction document, training, and practice. If there are ideas that improve safety, quality, or productivity why would you not want to share them across multiple shifts?

Standard Work incorporates what is needed to start the process and the finished state of the process. This includes how much RAW, WIP and FG material to have on hand and how often component levels must be replenished, as well as defining how often finished goods are retrieved from the work cell and how they are to be positioned for optimal flow. Standard Work is NOT the goal – safety, optimized productivity, and quality are the goals. Standardizing is merely a tool to ensure that those real goals are met. Standardization done to check a box is a waste of time and should not be pursued. All Lean tools should be implemented only if they will produce improvements.

Standard Work is more than a work instruction document – it's created by the process users, based on customer requirements provided by management and supervisors (and users too). A manager making a work instruction document and telling his subordinates "Here, this is the process we will follow" does not make work standardized. The process must be created by the users because they are more knowledgeable about the process than anyone else and they're the ones who have to buy into the standard process.

With Standard Work, disputes over improvements can be settled using data gathered for quantitative analysis and a touch of common sense. No need for hair-pulling arguments – simply go out and prove one method works better than another. Standard Work should always be questioned and improvements sought. Feel free and empowered to question everything and employ tools such as the 5Y method.

The 5Y method is one element of the 5W + 1H process that was previously described. The 5Y is the last "W" in the process and is an iterative technique used to help get to the underlying or root cause of a problem in a relatively short amount of time. The primary goal is to get to the root cause by repeating the question "WHY?" Each time you get an answer it will form the basis for the next for the next question. The 5 (which is a good rule of thumb) in the name is based on the number of iterations it will take to get to the root cause or resolution of the problem you are addressing by peeling away the layers of the symptoms with progressive questions. Be aware that not all problems may have one root cause. If in your situation you feel this is so, the method must be repeated following a different sequence of questioning. Although the method is called 5Y, depending on the problem you are trying to solve it may take more or less questions to arrive at the root cause of a problem.

Standard Work is not perfect, but it is the best practices known to that point. Expect standardized processes to change as advancements in technology and mini-Kaizens occur to identify opportunities for improvement. In fact, questioning standardized work should be welcomed by management. **♦**

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PEORIA DISPOSAL COMPANY CELEBRATES 90 YEARS OF SERVICE IN ILLINOIS

"Most people outside of Peoria recognize us as Area Disposal Company," said Chris Coulter, Vice President of Coulter Companies. "That's the waste hauling and recycling side of our operation." Prior to 1989, the family-owned company was known as Peoria Disposal Company, or PDC. When the company acquired AREA Disposal Service, a waste hauling company in Lincoln, Illinois, in 1989, PDC started a new division of the company to distinguish its operations located outside of the Peoria area.

Chris and his two brothers, Jeff and Matt, are the fourth generation in the business. Their father, Royal Coulter, has been in the family business for over 50 years and still goes on sales calls with his employees.

"I'm a very aggressive person," Royal said with a smile, "and I'm always trying to raise other peoples' bars. We make our success by the people we surround ourselves with."

Royal has had the unique opportunity to be present with every generation that has run the family business, from his grandfather to his children. He attributes the incredible growth of the company over the last 90 years to the tenacity of his family and the quality of his employees. "The Coulter family, we are all competitors," Royal said. "None of us like to lose. My kids are wanting to outdo me in the business already. That's the way it should be!"

The fourth generation has big shoes to fill. According to Chris, the business owes much of its success to Royal's hard work.

"I COULD WALK AWAY FROM THE BUSINESS NOW IF I WANTED. BUT I DON'T WANT TO! THAT'S THE THING ABOUT THE COULTER FAMILY – WE HAVE A REAL PASSION FOR THE BUSINESS." -ROYAL COULTER

"When Royal took over the company, they were bringing in \$1.5 million a year in revenue. Today we are bringing in over \$100 million. That has all been under his watch," Chris said. "It all started with John, and Royal's father Elmer and his uncle Melvin definitely took the company to another level, but the size we are at now is all because of Royal's leadership."

Royal was brought into the family business in 1979 after the untimely passing of his father. With the fear that he wasn't yet ready to take over the business and being constantly told it would be snuffed out by a larger hauling company, Royal started a tradition of making business



Top left: Chris Coulter. Top right: Royal Coulter. Bottom left: Matt Coulter. Bottom right: Jeff Coulter.

reports that included a list of goals and accomplishments. To this day, Royal still holds meetings in the boardroom where the Coulter family sits around the table and discusses the business and its challenges, as

well as their personal goals and accomplishments. "You have to stand up for your own principles," Royal asserted. "I'm always working towards my goals. Because of that I've been able to put some great people around me, come up with a vision for the company, and then go for it. But it all comes down to having a good work ethic. Even at my age, I put a lot of hours in."

Royal also makes sure to take the time to celebrate the successes of the company and his employees. In October, Royal hosted a 90th anniversary celebration of the family business for his employees and their families at Wildlife Prairie Park in Peoria, Illinois. He plans to attend the 100th anniversary celebration.

"I'll be there with my walker!" Royal said.

While celebrating the company's milestones and focusing on present goals, the Coulter family is also making plans for the future.

"Originally we started in waste hauling and disposal," Chris said. "Today, the growth is in recycling and analytical testing. Most family-owned companies in our industry just do waste hauling and recycling. It's really exciting to be involved in other aspects of the environmental services industry like waste treatment, environmental testing, and environmental consulting."

In February of this year, Coulter Companies acquired Prairie Analytical Systems, an environmental testing lab in Springfield, Illinois. Future plans have also been made for a household hazardous waste collection center that will collect household hazardous waste from Peoria residents free of charge, as well as a citizens' convenience center for Peoria residents to drop off electronics, construction and demolition materials, and yard waste at the Peoria City / County Landfill No. 3 Facility, which is jointly owned by the City and County of Peoria but will be managed by PDC under a life-of-site agreement.

"It's going to change the landscape for Illinois," Chris said. "It wouldn't surprise me if this type of service expanded to another 20 counties over the next 10 years."

And it's more than likely that Royal will still be in the business, making sales calls and visiting with customers.

"I could walk away from the business now if I wanted to," Royal admitted. "But I don't want to! I love it! That's the thing about the Coulter family – we have a real passion for this business."

That passion has undoubtedly transferred to the fourth generation. When Royal retires, his sons will take over the management of the company. Chris is currently responsible for the treatment and disposal operations of the company, as well as its environmental testing facilities. Jeff Coulter is currently responsible for the family's waste hauling operations, and Matt Coulter is responsible for the recycling operations of the company, as well as all of its business development initiatives.

Royal is excited to see what the future holds for his sons as well as his 10 grandchildren, and he looks forward to helping them with the business.

"I will always be a resource to them," Royal said.

If the IMA knows anything about Royal, we imagine that he will probably be sitting in on the meetings at the board room table, pushing his grandchildren to work smarter and asking them to show him their lists of goals and accomplishments.

Congratulations to the Coulter family for their 90 years of doing business in Illinois! We are proud to have them as a member of the IMA. \blacklozenge

EPIC SYSTEMS CORPORATION: SUPREME COURT DELIVERS SIGNIFICANT WIN FOR EMPLOYERS

BARNES & THORNBURG LLP

S tretching back 20 years, employers have been faced with a growing number of federal and state class action wage and hour lawsuits from employees and former employees. The number of federal lawsuits alone has increased to many thousands each year; and this does not include state court class action lawsuits.

The exposure in terms of liability and legal fees as well as the extensive amount of time to defend such class actions has required employers to get creative. One method to defend against class action located in the country, they may or may not be able to rely on these waivers. A handful of Circuits, including the Seventh Circuit presiding over Illinois, held that restricting employees from binding together and pursuing class and collective actions violated Section 7 of the National Labor Relations Act (NLRA) and were unenforceable under the Federal Arbitration Act (FAA). A handful of other circuits found that such waivers, as long as they complied with the FAA, were enforceable.

The United States Supreme Court end-

clarity and predictability to employers seeking to compel arbitration in a dispute with an employee or former employee. The benefits of arbitration are numerous. First and most importantly, the cost of arbitrating a dispute, be it a wage and hour, discrimination, or some other claim – and especially a class action – is much lower than litigating through the courts. An arbitrator can be given the same power a court would have to hear the facts, apply the law and decide on a remedy, if necessary. This process can save employers time, money and headache.

NOW, EMPLOYERS HAVE A POWERFUL TOOL. WITH A VALID ARBITRATION AGREEMENT CONTAINING THE PROPER WAIVER, AN EMPLOYEE CAN STILL FILE A SUIT, BUT THE EMPLOYER WILL HAVE THE ABILITY TO LITIGATE THE CLAIMS IN INDIVIDUAL ARBITRATION HEARINGS.

claims was the use of arbitration agreements containing a class and collective action waiver. Individuals wishing to work for an employer were required to sign these waivers as a condition of employment. These waivers prohibited employees from bringing class action lawsuits – claims that involve more than one individual claimant alleging unlawful conduct on behalf of the employer. The waivers also prohibited employees from bringing claims against their employers in court and instead required that such disputes be arbitrated.

The arbitration class action waiver proved to be a powerful tool, but as its use increased it became controversial and began to receive scrutiny in the courts. Over time different courts upheld waivers to a varying degree. This meant that depending on where an employer was ed this debate in favor of employers with Epic Systems Corporation v. Lewis. On May 21, 2018, the Supreme Court held that class action waivers within arbitration agreements between an employee and employer are enforceable and can prohibit the employee from participating in most claims against the employer, other than through one-on-one arbitration. The Supreme Court noted that the FAA requires courts to rigorously enforce arbitration agreements according to their terms, including terms that specify with whom the parties choose to arbitrate their disputes and the rules under which that arbitration will be conducted.

The Benefits of Arbitration and Positive Fallout from the *Epic Systems* Decision

The Epic Systems decision provides

Second, arbitration provides more predictability for employers. While arbitrators can still produce inconsistent outcomes from time to time, employers will not have to worry about the most inconsistent aspect of our judicial system: the jury. While not a sure bet, arbitrators will be more likely to know the issues, to focus on the important facts, and reach a reasoned and fact-supported conclusion.

Third, the decision provides a disincentive for plaintiffs' lawyers seeking to target employers with these claims. Before *Epic Systems*, a common predicament for employers could unfold like this: A plaintiff's lawyer could target an employer who it believes is not compliant with the FLSA in terms of how it pays its employees. The lawyer would then file suit on behalf of one employee who it claimed was not paid overtime or not

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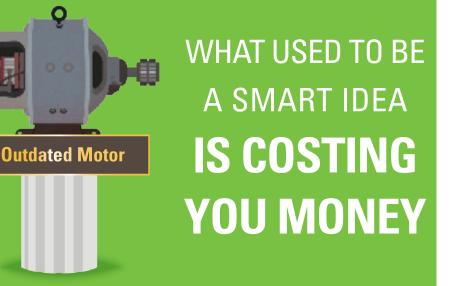
About the Authors: David B. Ritter is an employment attorney and partner at Barnes & Thornburg LLP, and can be reached at David.Ritter@btlaw.com, or (312) 214-4862. Thomas Payne is an employment attorney at Barnes & Thornburg LLP, and can be reached at Thomas.Payne@btlaw.com, or (317) 261-7952. paid a minimum wage, for example. The lawyer would then be able to argue that this single employee was representative of all current and former employees who were paid in the same way. This allowed a plaintiffs' lawyer to file one lawsuit but possibly recoup damages for dozens or maybe hundreds or even thousands of employees turned plaintiffs. Importantly, the FLSA allows for "liquidated damages" – damages that amount to double the amount of back pay the individual employee is entitled to if the employer is found liable.

With the carrot of double damages, these types of wage and hour claims have plagued employers for years. But now, employers have a powerful tool. With a valid arbitration agreement containing the proper waiver, an employee can still file suit, but the employer will have the ability to litigate the claims in individual arbitration hearings. While double damages are not going to disappear, plaintiffs' lawyers have less likelihood of joining together dozens of individuals, all of which could receive those double damages. It is anticipated that this will result in fewer class action wage and hour lawsuits in the future – good news for employers.

How to Implement Your Arbitration and Class Waiver Agreement

Employers should consider implementing arbitration agreements now. To set up an effective arbitration and class waiver agreement, a few best practices should be followed. First, the agreement should be in writing. It is recommended that this be a separate agreement signed by each employee as a condition of employment. This means that the employee cannot work for the employer unless the agreement is signed. This should be done at the beginning of the employment relationship.

Employers will also want to make sure their arbitration and waiver agreements do not contain any overly restrictive procedures that limit an employee-claimant's ability to pursue their claim. For example, agreements that place restrictive limits on discovery or damages could be suspect. Instead, consider placing in your agreement a reference to one of the reputable arbitration associations that publishes its own set of rules and procedures, such as the American Arbitration Association.



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WHY YOU SHOULD PARTICIPATE IN YOUR ASSOCIATION'S ENERGY PROGRAM

CONSTELLATION

hat could a real estate investment trust (REIT), a municipality, a college, a manufacturer and other various industry types possibly have in common when it comes to energy? The answer: An association relationship with Constellation.

An REIT with a large portfolio was considering a long-term contract for electric supply, but worried that selling properties over the term of their contract would mean termination penalties. By using a customized contract through their trade association energy program with Constellation, the real estate friendly terms available to members helped to alleviate this concern.

A town in New England was able to demonstrate their commitment to sustainability by securing renewable energy credits (RECs) for their town hall at no additional cost as part of their municipal association's energy program with Constellation.

Manufacturers in the Midwest stay informed on energy market trends and issues that could affect their business through webinars and understand more complex energy issues via articles in their regular association newsletter provided by Constellation.

Companies, schools, non-profits and local governments join associations for the purchasing and advocacy benefits that being part of a larger group can provide. Typically, the most prominent benefit is a larger voice for advocacy on issues they care about in their respective state capitals and Washington, DC.

In addition, associations often offer member benefits around favorable procurement or insurance programs. While there are effectively no "member discounts" for a commodity-based energy program, the examples above illustrate some of the non-standard program features that may be available as part of an association energy program. Features often crafted with the specific membership base in mind.

Beyond Purchasing

One important reason organizations join associations is the expected benefit of access to information and knowledge on industry topics that members do not have the resources or time to gather themselves. For associations with membership who are large energy users, a relationship with Constellation provides easy access to timely and expert information related to energy from dedicated market professionals. Whether it is understanding the current market factors driving energy prices or a detailed explanation of a regulatory change that will increase energy costs, accessing this knowledge through your association can be extremely helpful.

Of course, another benefit of membership is having your association as an ally. By participating in your association's energy program with Constellation, if an issue or unique need arises, your association is able to help ensure that resolution is reached or worked through promptly. This type of relationship might help explain why customer satisfaction scores for participants in association energy programs are a bit higher than most. Lastly, Constellation provides financial support for our associations as a cost-effective marketing effort that doesn't increase member dues or energy rates. This mutual support allows associations the means to focus more on key issues that affect members, such as advocacy on a contentious issue at the statehouse, or simply just to keep dues down for members.

Whichever reason resonates the most, there are many good ones for participating in your association's energy program with Constellation.

For more information, please reach out to Rich Cialabrini at richard.cialabrini@ constellation.com or 888.312.1563 or visit associations.constellation.com/ima/



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WATCHFIRE SIGNS WINS BID FOR FREMONT STREET CANOPY RENOVATION

T t's not every day that a small city like Danville, Illinois makes national news. This past August, however, Watchfire Signs appeared in headlines across the country for beating out 14 competitors from all over the world to renovate the video screen for the Fremont Street Experience in Las Vegas, Nevada.

From its humble beginnings in 1932 under its original name, Time-O-Matic, Watchfire Signs has grown into a global competitor.

"We are beyond excited and overwhelmed that our company here in Illinois is making these high-tech products and has been recognized amongst a set of global competitors as being the best," said President and CEO of Watchfire Signs, Steve Harriott.

The \$30 million project, which is set to begin in early 2019, has taken years to research, develop, test, and produce. And rightfully so – the Fremont Street Experience is the largest video screen in the world, measuring in at 130,000 square feet and spanning five blocks over Fremont Street.

The specifications for the renovation were tough to meet: Fremont Street's Request for Proposal (RFP) required that the module have a higher resolution than before, shed rain, and be at least 18 percent transparent in order to let light in during the day.

"When I first saw the specs, I thought it was going to be extremely difficult for us to meet them," Mr. Harriott admitted. "But through the inventiveness of our team and the experience we've got from the 60,000 LED signs we've already produced, we were able to come up with this product."

The team at Watchfire Signs developed an entirely new product for the project – an e-circuit board that is printed with holes and can be trimmed and fitted around the structural components of the massive frame. When pieced together, the massive project will include 64,000 custom-designed modules with 16.3 million pixels and 49 million LEDs. The finished video screen will be seven times brighter and four times sharper than the original, making it possible for content to be displayed during daylight hours for the first time ever.

Though the RFP process was rigorous and took several years, Mr. Harriott was confident from the start.

"The truth is, when the Research Development team brought in the first prototype they'd designed, that's when I knew we



were going to win. It was sleek, and it met all those difficult requirements."

The Watchfire team truly thought of everything – from the requirements of the RFP down to the sometimes-neglected details, like sourcing their electronic parts.

"One of the things that really set us apart was that we thought through all the difficulties of a project like this," Mr. Harriott said. "There's a global constraint on sourcing electronic parts, so we had to think about how quickly we could get all these parts that will be going into our printed circuit boards. We've made a timeline, practically down to the hour, for this project. We've thought about it all the way through and we're ready to execute it."

Assembly will begin in early 2019, and the product will be installed in eight phases over the course of the year. The project will take the effort of the entire company.

"This is the kind of project that you don't get done with just a handful of people. Every department in the company has been involved," Mr. Harriott said. "From the R&D team to the operations team, the marketing team and the sales crew down to the folks that run the machines and do the assembly and the welding, we are all in this together and we all win together."

The finished product will feature several improvements from the original canopy, such as higher energy efficiency and better durability.

"Our goal is to make a product that is virtually maintenance free," Mr. Harriott said.

The Watchfire team is looking forward to tackling new challenges as the company moves forward. With such a large project being worked on, the business will have to adjust in order to accommodate it.

"We already employ about 330 people," Mr. Harriott said. "But we will still need to satisfy all of the customers we currently have. One of the things Watchfire is known for is our great service to our customers. We are still determining the exact number of people we will need to add to the team, but we will definitely need to grow in order to keep up. It's a very exciting time."

Please join the IMA in congratulating the team at Watchfire Signs for their hard work and dedication to innovation!

MEMBER NEWS

Bridgestone Expanding Off-the-Road Tire Production in U.S. at Bloomington, Illinois Plant

BRIDGESTONE

Bridgestone Americas (Bridgestone) in July announced a \$12 million investment that will expand production to include popular off-the-road (OTR) tire sizes at its Bloomington, Ill., plant. The plant will produce multiple sizes and patterns in 29, 33 and 35-inch OTR tires, which until now have only been produced by Bridgestone in Japan.

"As an industry leader, Bridgestone is committed to meet the evolving needs of our customers in the OTR segment," said Bridget Neal, president, off-the-road tires, Bridgestone Americas. "The addition of the three tire sizes to the Bloomington production line combined with our Aiken County, S.C., Off Road Tire Plant, allows us to support North American customers with regional supply of our key products."

This investment also includes increasing the workforce at the Bloomington plant by 30 employees. The last major investment in the plant was \$48 million for a radial and giant loader expansion in 2011 and 2014.

"This investment is about increasing our flexibility to produce high-quality radial or bias tires – whatever our customers demand," said Monty Greutman, plant manager, Bloomington. "It will allow us to deliver on our global commitment to develop innovative new products that will meet our customers' needs, but it wouldn't be possible without the outstanding teammates we have here today – some of whom have worked here for decades."

The Bloomington, Illinois, plant, owned and operated by Bridgestone Americas Tire Operations, produces OTR tires for mining and construction applications. The plant team has achieved numerous awards and recognitions, including OSHA Voluntary Protection Program (VPP) Star Safety Certification, U.S. Tire Manufacturers Association's Safety and Health Improvement Award, and Illinois American Legion Employer of the Year for Hiring of Veterans. The plant has been an active part of the Bloomington community for decades and invests in many local nonprofit organizations, including the Boys and Girls Club of Bloomington-Normal and Easter Seals -Central Illinois.

PEOPLE and Great Place to Work® Name Horizon Pharma plc to 2018 "50 Companies That Care" List



Horizon Pharma plc in July announced that the company has been named to PEO-PLE's"50 Companies That Care" list for 2018. The list was be featured in the August 6, 2018 print issue of PEOPLE Magazine. "50 Companies That Care" spotlights 50 U.S. companies with 1,000 or more employees that have succeeded in business while also demonstrating respect, compassion and concern for their communities, their employees and the environment.

"It is a great honor to be recognized by PEOPLE and Great Place to Work® as one of the '50 Companies That Care,'" said Timothy P. Walbert, chairman, president and chief executive officer, Horizon Pharma plc. "This distinction is a realization of what we work so hard for at Horizon – to be a positive force for good amid a constantly changing health care system. Our social responsibility programs, patient advocacy support and awareness, dedication to individual employee volunteerism, as well as inclusion initiatives, reflect our company ideals, a commitment to our patients and the communities we serve."

PEOPLE partnered with Great Place to Work®, a global people analytics and consulting firm, to analyze employees' survey feedback on how their workplaces make a difference in their lives and communities, and to consider the generosity of each organization's benefits, as well as their philanthropic and community support.

In furthering the company's dedication to service, Horizon has also joined Pledge 1%, a corporate philanthropy movement that empowers companies to donate 1% of product, 1% of equity, 1% of profit or 1% of employee time to improve communities around the world. Joined by more than 5,500 organizations across 100 countries from all different sectors, Horizon is one of the first biopharmaceutical companies to make this important commitment.

Horizon supports four pillars of giving – children's healthcare, innovation, STEAM (science, technology, engineering, arts and math) and its therapeutic areas. Through these platforms, the company has been able to donate \$9 million in community impact and support.

To identify the "50 Companies That Care," PEOPLE teamed up with Great Place to Work to produce the list using the research and consulting firm's extensive database and inside knowledge of outstanding workplaces around the globe. PEOPLE magazine partnered with Great Place to Work® to produce the ranking using the research firm's extensive database and inside knowledge of outstanding workplaces around the globe. Rankings are based on surveys representing over 4.5 million employee's experiences of how their workplaces have made a difference in their lives and in their communities. Rankings also reflect Great Place to Work's assessment of the generosity of each organization's benefits, philanthropic and community support, with particular focus on activities occurring in the last year.

The Inland Real Estate Group of Companies, Inc. Honored by the City of Chicago for 50th Anniversary

AND

The Inland Real Estate Group of Companies, Inc.

On August 16, 2018, the principals of The Inland Real Estate Group of Companies, Daniel Goodwin, Bob Baum, Joe Cosenza and Bob Parks, were presented with a resolution by Mayor Rahm Emanuel in honor of The Inland Real Estate Group of Companies, Inc.'s 50th Anniversary. The resolution was passed by the Mayor and the City Council of Chicago to express their gratitude and congratulations on Inland's 50 years of successful business in the commercial real estate industry.

2018 IALF Torch of Leadership Recipients Honored



It was an evening to honor excellence during the 2018 IALF Torch of Leadership Awards on August 25, 2018. Fellow alumni and agriculture leaders recognized those who have made an impact on agriculture. This year's recipients were Chet Boruff (IALP '84), Ron Warfield (IALP '84), Randy Prince (IALP '04), and Stu Ellis (IALP '88). Congratulations to these four gentlemen for their contributions to agricultural leadership!

The IALF also would like to thank all the attendees as well as the evening's sponsors COUNTRY Financial, the Illinois Farm Bureau and the Illinois Manufacturers' Association for their generous support of the event.

Faber-Castell to Open Cosmetic Manufacturing Facility in Elgin



Governor Bruce Rauner and Faber-Castell Cosmetics in September announced the company's first North American manufacturing facility in Illinois. The German company has leased a state-of-the-art manufacturing plant in Elgin that will be dedicated to producing cosmetic pencils for the North American market. The \$9 million project will create 50 full-time jobs. The announcement comes after the Governor visited with the company in Stein, Germany in late spring.

"It is an honor to welcome Faber-Castell to the Illinois manufacturing family," said Governor Bruce Rauner. "Faber-Castell has a remarkable legacy in Germany, and I am proud that they have chosen Illinois to be the next phase in their journey. We look forward to working with them and helping them thrive in Elgin."

"I am proud to announce this project during the 40th year of Faber-Castell Cosmetics," said company President Countess Mary von Faber-Castell. "The US facility will become Faber-Castell Cosmetics' beta factory with exceptional, industry-standard processes and systems, in addition to offering US customers the same speed-tomarket and convenience now enjoyed by Europe and Brazil."

During his April 2018 trade mission to Poland and Germany, the Governor met with leaders of Faber-Castell at their world headquarters in Stein, Germany. The company, best known for their pens, pencils and art supplies, dates back to 1761 and does business with more than 100 countries. The cosmetic division, Faber-Castell Cosmetics, is currently celebrating its 40th year anniversary as a world-recognized private label cosmetic manufacturer, focusing on color cosmetics and nail care.

"Economic development is a collaborative effort - it takes time, effort and strong relationships to make projects like this a reality," said Director of the Illinois Department of Commerce Sean McCarthy. "We have worked closely with Faber-Castell, both in Illinois and in Germany, as well as partners like former Illinois Senator Karen McConnaughay, the Illinois Manufacturers' Association, the City of Elgin, and Harper College, to solidify this deal for Illinois."

The company chose to announce their expansion at the MakeUp conference in New York, an industry-wide event that has more than 110 formula, accessories and packaging industry exhibitors.

"Adding a North American facility is a remarkable milestone for our company," said Dr. Christina Zech, Managing Director of Faber-Castell Cosmetics. "Illinois now joins Brazil and Germany on our list of production sites. The strategic location in between the coasts along with the exceptional workforce Illinois boasts made it a natural choice for our next facility."

"Faber-Castell is a phenomenal global company with roots going back three centuries," added Illinois Manufacturers' Association Vice President & COO Mark Denzler. "It was fascinating to learn about their history and vision for the future during the Governor's trade mission and we're excited that Illinois will host their first American facility." Intersect Illinois coordinated the April trade mission to enhance the state's Foreign Direct Investment (FDI) strategy. During the mission, the 22-member delegation visited with 16 companies and attended one of the world's largest trade fairs, Hannover Messe.

"Growing our foreign direct investment is essential to improving our economy and maximizing our potential," said Mark Peterson, President and CEO of Intersect Illinois. "Germany remains one of our greatest FDI partners, and the Faber-Castell facility is the next chapter in our rich and shared economic history with German manufacturing here in Illinois."

ExxonMobil to Join Oil and Gas Climate Initiative

ExxonMobil

ExxonMobil in September said it will join the Oil and Gas Climate Initiative (OGCI), a voluntary initiative representing 13 of the world's largest oil and gas producers working collaboratively toward solutions to mitigate the risks of climate change.

The CEO-led organization focuses on developing practical solutions in areas including carbon capture and storage, methane emissions reductions and energy and transportation efficiency. As part of the initiative, ExxonMobil will expand its investment in research and development of long-term solutions to reduce greenhouse gas emissions as well as partnerships and multi-stakeholder initiatives that will pursue lower-emission technologies.

"It will take the collective efforts of many in the energy industry and society to develop scalable, affordable solutions that will be needed to address the risks of climate change," said Darren Woods, chairman and chief executive officer of ExxonMobil.

CONTINUED ON PAGE 30

"Our mission is to supply energy for modern life and improve living standards around the world while minimizing impacts on the environment. This dual challenge is one of the most important issues facing society and our company."

ExxonMobil has invested billions of dollars in researching and developing lower-emission solutions, including carbon capture and storage technology, next-generation biofuels, cogeneration and more efficient manufacturing processes.

Earlier this year, ExxonMobil announced initiatives to lower greenhouse gas emissions associated with its operations by 2020, including reducing methane emissions 15 percent and flaring by 25 percent. Since 2000, ExxonMobil has spent more than \$9 billion to develop and deploy higher- efficiency and lower-emission energy solutions across its operations.

OGCI was established following the 2014 World Economic Forum and formally launched at the United Nations Climate Summit the same year. Members include BP, Chevron, CNPC, Eni, Equinor, ExxonMobil, Occidental Petroleum, Pemex, Petrobras, Repsol, Royal Dutch Shell, Saudi Aramco and Total.

Boeing Wins U.S. Air Force T-X Pilot Training Program Contract



U.S. Air Force pilots will soon train for combat with T-X jets and simulators from Boeing as per the contract that was announced on September 27, 2018.

"This announcement is the culmination of years of unwavering focus by the Boeing and Saab team," said Leanne Caret, president and CEO, Boeing Defense, Space & Security. "It is a direct result of our joint investment in developing a system centered on the unique requirements of the U.S. Air Force. We expect T-X to be a franchise program for much of this century."

Boeing and its risk-sharing partner Saab designed, developed, and flight tested two all-new, purpose-built jets — proving out the system's design, repeatability in manufacturing and training capability.

"This selection allows our two companies to deliver on a commitment we jointly made nearly five years ago," said Håkan Buskhe, president and CEO of Saab. "It is a major accomplishment for our partnership with Boeing and our joint team, and I look forward to delivering the first trainer aircraft to the Air Force."

Boeing is now clear to begin placing orders with its suppliers, including Saab. More than 90 percent of Boeing's offering will be made in America, supporting more than 17,000 jobs in 34 states.

Saab serves the global market with world-leading products, services and solutions within military defense and civil security. Saab has operations and employees on all continents around the world. Through innovative, collaborative and pragmatic thinking, Saab develops, adopts and improves new technology to meet customers' changing needs. ◆



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