The PMI19 Conference – A Completely New Experience

by Nate Kogler, President, PMI Board of Directors; Bradley Corporation

During or after you read this article, take a look at the agenda for the PMI19 Conference – Manufacturing Success. You’ll see many topics and sessions you haven’t seen at a PMI Conference before.

First off, the Aspiring Leaders’ Program on Nov. 4, the first day, is brand new. Kim Macuare, Ph.D., the education manager of the Innovation Labs at The Dali Museum, will lead participants through a full day of mind-expanding exercises designed to foster creativity and innovation. You can learn more about what she has planned for the program’s attendees on page 3.

Second, rather than having the conference organized into a series of committee meetings, we’ve broken the mold to encourage cross-functional collaboration and communication. We’re no longer dividing the meeting up with break-out sessions. Rather, all participants will be together for all sessions, to encourage everyone’s thinking about the implications each issue will have on both manufacturing and allied members, as well as on PMI’s technical, advocacy, communication, commercial, water efficiency and sustainability interests.

Third, as you scan through the sessions planned for Nov. 5–7, you’ll see topics you haven’t associated with PMI Conferences in the past. The multigenerational workplace and human resources. Sustainable packaging. Accessibility. The reuse of wastewater. Consumer data protection. The infographic on pages 4 and 5 of this issue of Ripple Effect visualizes how these five industry trends are already affecting the plumbing manufacturing industry. With emcee Joel Zeff presiding, experts Lindsey Pollak, Trina Matta, Dave Yanchulis, Daniel Yeh, Ph.D., and others will lead these discussions.

Fourth, this year’s conference will have increased emphasis on the economic trends that will impact our industry. Alex Chausovsky, from ITR Economics, will present the PMI Market Outlook – a report tailored specifically to PMI member organizations that tells you what you can expect within the next two years. Gary Stanley, from the U.S. Department of Commerce, will provide insight into the impact tariffs and current trade policies are having on American businesses and consumers.

Consistent with our past conferences, you can look forward to the usual camaraderie and expanding networking opportunities. We will be hearing important updates on PMI advocacy and government affairs from Jerry Desmond and Stephanie Salmon; on WaterSense from Beth Livingstone, EPA WaterSense brand manager; and on technical topics from the trio of Andrew J. Whelton, Ph.D., Patrick Gurian, Ph.D., and Gary Klein. You’ll also receive an update on the state of PMI during our 45th annual general membership meeting.

And fifth, but not least, we’re having the conference on a beach – a beautiful beach overlooking the Gulf of Mexico! The Tampa/St. Pete area also offers many attractions for those wishing to extend their time in Florida.

From start to finish, the PMI19 Conference recognizes all attendees as leaders with strong influence within their organizations and beyond. The conference agenda was designed according to this mindset. With the world around us changing at unprecedented speed, it only makes sense to have an approach to the conference that nimbly adapts to our circumstances.

On behalf of the board and membership of PMI, I look forward to seeing you at St. Pete Beach on Nov. 4. If you haven’t yet, register today at safeplumbing.org/2019-pmi-conference. Give special consideration to participating in the Aspiring Leaders’ Program, or nominate someone in your organization to do so. We’d like to have as many of our member organizations represented as possible.

Our goal with everything at PMI19 is to provide a completely new experience – one that, in the words of Dr. Macuare, “allows us to look at things differently, to do things differently, and sets us up to happily go out and be different in the world.”
The Rise of Smart Technology

by Kerry Stackpole, FASAE, CAE, PMI CEO/Executive Director

As you approach the office tower, you access your smartphone to call for a building elevator to arrive in the lobby to take you to a specific floor at a specific time of your convenience. The elevator will arrive when you need it. If this sounds like the Uber of elevators, that suits Otis Elevators just fine.

When the mid-engine 2020 Corvette Stingray arrives, it will come with a new option – front lift. When you need to pull into a steep driveway or drive over a speed bump, the feature raises the front end about two inches to avoid potential damage to the lower fascia. The feature is programmable with up to 1,000 waypoints, so you can note where these potential hazards may be through GPS and the car will adjust automatically.

As someone who has spent a fair amount of my life engaging with and mastering new technology, I’ve heard more than my share of tech shorthand. The “last mile” was used in telecommunications to refer to the final leg of the networks that deliver services to customers. Today, it’s often used to describe the toughest part of a journey – the delay in disembarking an aircraft or ensuring on-time delivery to a customer. The “last mile” is prone to delay and discord, and it’s also a rich opportunity.

In regard to e-commerce retailing, Industry Week reports that a year ago, home improvement retailer Home Depot announced plans to spend $1.2 billion over a five-year period to improve its supply chain operations. According to Industry Week, the company has already leveraged its distribution network to the point where it can reach 95% of the U.S. population within two days, and 30% within one day. By adding 170 distribution facilities, the retailer hopes to reach 90% of the U.S. population in one day or less.

FedEx ships 15 million packages every business day. UPS delivers 20.7 million packages daily. Amazon ships 1.6 million of those packages. Getting close to the customer isn’t a slogan or just a nice thing to do. It is now a business imperative. In all this hustle-bustle it’s easy to be overwhelmed by the rapid pace of change and overlook key certainties driving our business.

One thing for certain – the baby boomers are going to continue their retirement exodus. That means having and using knowledge management tools are an essential part of your workforce development. Machine intelligence is going to continue its rise and application across an array of services. It’s somewhat ironic that getting a human being to answer the telephone at the telephone company is getting increasingly difficult. “Chat Now!” is becoming the standard.

It’s fair to say there will be increased globalization of laws, regulations, codes and standards. Our laws will not become less complex. The regulatory challenges will continue to multiply as technology advances. It’s also clear that cloud computing will continue its sweep for individuals and businesses, supporting increased mobility for people across a growing range of occupations and professions.

There is little doubt the American workforce will become more diverse and require an ongoing schedule of training and re-training in the years to come. Rolling these ideas into your department strategy and plans will accelerate your competitive advantage. Creating a mentor program before the baby boomers sail off into retirement is another solid strategy based on a hard fact.

Artificial intelligence (AI) is the de facto way Netflix makes movie recommendations, and Amazon makes product recommendations including pricing and promotions. Today, AI technologies support diagnostics and create management plans for oncology patients. Johnson & Johnson and IBM are using AI to analyze scientific papers to find new connections for drug development.

The Massachusetts Institute of Technology has created a platform for gathering human perspective on moral decisions that will have to be made by machine intelligence, such as that included in self-driving cars. The Moral Machine (moralmachine.mit.edu) lets you experience and experiment with the moral dilemmas associated with machine intelligence. There’s more than a little uncertainty in what choices you have to meet in the simulations. Feeling creative? You can design your own scenarios for others to navigate as well.

While it is easy to be overwhelmed by unpredictability and uncertainty, it’s equally important to bring focus to what you do know. I know with complete certainty there will be a full moon on January 29, 2040, that will surely illuminate the work at hand.

PMI Welcomes New Education Manager

Candace Spradley, PMI’s new education manager, has more than 15 years of continuing education experience with non-profit and trade associations within the healthcare, scientific, architecture and construction communities.

Among her accomplishments, Spradley assisted in the creation of an e-learning portal for a medical society that included more than 200 recorded live and online activities. She is a member of the American Society of Association Executives (ASAE) and holds a bachelor’s degree from the University of Alabama.
Meet the Leader of PMI’s Aspiring Leaders’ Program

The education manager of the Innovations Labs at The Dali Museum, Kim Macuare will be leading PMI’s Aspiring Leaders’ Program on Nov. 4 at the PMI19 Conference in St. Pete Beach, Fla. PMI interviewed Kim to learn what she has in store for the program’s attendees.

Is having an education manager of an innovation lab something many museums have these days? It’s very uncommon. We’re a unique program. We’re the only museum in the United States or even abroad with an innovation lab dedicated to using works, processes and methods derived from art to jumpstart creativity and promote innovation outcomes in organizations and corporations.

How did the museum decide to start the lab? The executive director of the museum, Dr. Hank Hine, was hearing people in the business community ask, “How can we be more innovative?” It was a natural for him to think of art as the way because innovation often comes from having fields intersect. To take a common example, think about how Apple has worked at the intersection of technology and the arts to produce something incredibly functional and at the same time appealing because of its beauty and aesthetics.

How is art analogous to business? Salvador Dali and many other artists we admire are great experimenters. They imagine the future. They are the first people who are playing with concepts as they appear and working those ideas out on canvas in an imaginative way. They provide an excellent model for business leaders because that’s exactly what leaders have to do; they have to be able to imagine the future. They have to be conceptual and think about how ideas might look like when they come to fruition.

What is the FourSight approach and how will that be part of the Aspiring Leaders’ Program? I’m certified as a FourSight (FourSightonline.com) trainer for the mindset profile, which is the one I’ll be using with PMI. Mindset helps everyone understand that innovation is actually their job.

We’re accustomed to thinking of creativity as a chaotic, indefinable or hard-to-understand process. FourSight helps us understand that process and think about engaging in it in a more mindful way. Once we do that, it’s easier to improve both our creative thinking and innovation outcomes.

FourSight helps us understand that we often ask a question in common language. We say, “Oh, how creative are you? Are you really creative? Are you a little creative?” FourSight shows that those are the wrong questions. It’s not “How creative are you?”, it’s “How are you creative?” Every stage of the creative problem-solving process is connected to cognitive style, and your cognitive style determines how you’re going to engage in the process. Each participant will learn about their personal cognitive style.

Once you understand that, you can leverage your cognitive style information to understand yourself better and manage both your strengths and your “watch outs” more effectively. You also develop empathy and a better understanding of the people you work with because you understand that their cognitive styles may be different than your own and that has implications for how you’re going to work together.

Can you walk us through the Aspiring Leader’s Program activities? We’ll start out with what I call “convening activities” – where participants practice and adopt the mindsets that we will use throughout the day. We’ll activate people’s creativity and get them ready, set and focused for jumping straight into the agenda, which is pretty jam packed. We’ll be thinking about what creativity is and what creativity isn’t. What are the tenets of creativity? And why is it important that leaders understand these tenets?

Then we’re going to flow into thinking about Dali because one of the things we want to understand is the definition of creativity that we use to frame that discussion: novel ways of seeing, doing and being.

What are new ways that we can see things? What are new ways that we can do things? What are new ways that we can be in the world? Dali’s art, processes and methods allow us to look at things differently, to do things differently, and set us up to happily go out and be different in the world.

After the creativity workshop, we’re going to have an hour-long customized tour of the museum’s galleries. The tour will be focused on leadership vision. That is, how do leaders see differently and how can we practice some of those skills? Participants will be literally working with the artwork to hone in on and practice those skills.

Watch a video about The Dali’s Museum’s Innovation Labs and see what the Aspiring Leaders’ Program will be like: youtu.be/v1mHitxTb28

Learn more and register for PMI’s Aspiring Leaders’ Program: safeplumbing.org/events/aspiring-leaders-program
Consumers, investors and environmentalists are increasingly urging companies, including manufacturers, to reduce their use of single-use plastic packaging—and businesses and governments are responding. Nearly 50% of the plastic waste generated globally in 2015 was plastic packaging.

PMI19 Conference speaker Trina Matta, senior manager, Sustainable Packaging Coalition, GreenBlue, will explore how your company can reduce the use of single-use plastics in your product packaging in favor of more recyclable options.

As manufacturers face the Fourth Industrial Revolution, with advanced technology transforming work, competition for skilled labor will accelerate.

Keynote speaker Lindsey Pollak is a leading expert on millennials and the multigenerational workplace and will provide useful tips on how to manage the expectations of these talented workers.

1. THE MANUFACTURING LABOR SHORTAGE

Between 2018 and 2028, manufacturers are projected to have more than 4.6 million jobs to fill; however, projections say only 2.2 million jobs are likely to be filled because of a skills shortage.

(Source: Deloitte and The Manufacturing Institute)

2. SUSTAINABLE PACKAGING

More than 250 companies signed on to the Ellen MacArthur Foundation’s New Plastics Economy vision: make plastic packaging 100% recyclable or compostable by 2025. The signing companies represent 20% of global plastic packaging.

(Source: Supply Chain Dive)

More than 60 countries are introducing legislation to reduce use of single-use plastic materials.

(Source: United Nations)

3. HOUSING ACCESSIBILITY FOR THE DISABLED

In the next 15 to 20 years, an aging population will boost disability rates, significantly affecting homebuilders, manufacturers, policymakers and others concerned about housing accessibility for the disabled.

PMI19 Conference speaker Dave Yanchulis, director, Office of Technical and Information Services, U.S. Access Board, will address accessibility issues in his presentation.

By 2035, older households with a disability will reach 31.2 million, increasing by 76% from the current number of 17.7 million.

(Source: Joint Center for Housing Studies/Harvard University)

In 2011, just 3.5% of U.S. housing units included all five universal accessibility features: lever-style door and faucet handles, no-step entryways, single-floor living, extra-wide doorways and halls, and accessible electrical controls and switches.

(Source: Joint Center for Housing Studies/Harvard University)
By 2027, the volume of recycled water produced in the U.S. is estimated to increase 37%—from 4.8 billion gallons per day to 6.6 billion gallons per day.
(Source: Bluefield Research)

Thirty-six states used reclaimed water in 2013, up from 23 states in 2003.
(Source: U.S. Government Accountability Office)

With droughts and water shortages on the rise, more states and municipalities are turning to alternative water sources, including re-using treated wastewater.

PMI19 Conference speaker Daniel Yeh, Ph.D., P.E., BCEE, LEED AP BD+C, associate professor, University of South Florida, will discuss wastewater research in his presentation.

With many large data breaches on the rise over the past several years, transparency around personal data privacy has become a critical issue for businesses.

Consumer data protection requirements, with proposed legislation being closely tracked by PMI's Advocacy/Government Affairs Committee, is on the PMI19 Conference agenda.

IHS Markit has projected that the number of connected Internet of Things devices worldwide will climb 12% annually, from almost 27 billion in 2017 to 125 billion in 2030.
(Source: IHS Markit)
Current title and employer: Director of Engineering, Sanitary Products, Kitchen & Bath North America, Kohler Co.

My first job: A product engineer for General Motors Corporation. My master’s degree in industrial engineering with human factors specialization was first put to use in the design of advanced interiors within the automotive industry. I followed a track through various advancing roles in automotive new product development spanning over 20 years across both original equipment manufacturers and suppliers, until my move into the plumbing manufacturing industry in 2008.

Length of time in the plumbing manufacturing industry: 10 years so far. A move to Wisconsin corresponded with joining Kohler and my entrance into the plumbing manufacturing industry. I was surprised but excited to find that product development of a vehicle subsystem and a plumbing product have more in common than you would think!

My proudest plumbing manufacturing career achievement: While it may be cliché, I am very proud of the creative sanitary engineering team we have built at Kohler and the innovation they bring to work each day. It has been very exciting to see the positive impact that leading-edge plumbing fixtures can have on consumers – providing experiences beyond expectations, making lives easier in bathroom spaces, and creating pride in ownership.

I started a career in the plumbing manufacturing industry because: Initially I hadn’t considered a career in the plumbing manufacturing industry. However, Kohler itself drew me into the plumbing manufacturing industry. I was surprised but excited into the plumbing manufacturing industry.

I’m currently reading: “Creativity, Inc.,” a story of the interesting journey of Pixar Animation, full of many useful takeaways. Technically, I’m listening to it – I try to make the best use of my 90-minute roundtrip daily commute by exploring books and podcasts.

I started a career in the plumbing manufacturing industry because: Initially I hadn’t considered a career in the plumbing manufacturing industry. However, Kohler itself drew me into the plumbing manufacturing industry. I was surprised but excited into the plumbing manufacturing industry.

My hidden professional talent is: Using encouragement and positivity as helpful motivators - building up individuals and helping enable their potential is rewarding business. I have also learned that incentive, attitude and support far outweigh more primitive approaches – we all achieve more when we feel good about what we do and are appreciated and recognized.

Best advice I ever received: Follow the golden rule of treating others as you want to be treated. They are words I read in the good book at a very young age and have always been words to live by.

My favorite movie: Any Robin Williams movie. “Good Morning Vietnam” and “Dead Poets Society.” I’ve always been a fan of such a very talented actor – whom I wish were still making us all laugh.

When I face a challenge at work (or in life): I have learned to take a deep breath, stay calm, think through the problem logically, develop a plan, and move forward. Knee-jerk reactions and shooting from the hip are often the wrong moves. Make a data-based decision, but don’t get stuck in the analysis.

About my family: I live in Mequon, Wisc., with my wife Trudy – we have been married for 28 years. Our three...
Incidents Spur Lead Service Line Replacements

by Judy Wohlt, PMI Communications Team, Valek and Co.

Recent incidents of high lead levels found in drinking water shine a spotlight on a larger issue: the need for water infrastructure improvements to remove lead service lines and for public education about the true causes of lead in water.

For many years, PMI and its members have been advocating for increased investment in the nation’s aging water infrastructure as a way of reducing lead levels, while supporting legislation such as the Reduction of Lead in Drinking Water Act and other efforts to help protect public health and safety with safe plumbing and sanitation.

Five years after the Flint, Mich., lead-in-water crisis began, many residents there are still using bottled water to drink and bathe – even though the city has declared the tap water safe, according to an mlive.com article (tinyurl.com/y6s8an2o). Recently, the city secured funding of almost $100 million – from the state and federal government – to replace lead service lines over a three-year period, according to a recent WBEZ radio report (tinyurl.com/y3n2euop). That project is due to be completed by the end of 2019.

The funding also provides residents with free lead filters and cartridges along with education on how to use the filters during the lead service line replacement project. Since then, Michigan has passed a Lead and Copper Rule that’s the strictest in the country, requiring all lead service lines in the state to be replaced, according to the WBEZ report.

Meanwhile, Denver hopes to take a proactive approach to achieve optimal safety. A July Fox 31 Denver, Colo., report (tinyurl.com/y3m3kh2m) discussed Denver Water’s largescale plan to spend up to $500 million replacing tens of thousands of service lines to ensure lead-free water in every home, business and school throughout its system. The utility must receive approval from federal and state government officials before it can finalize plans, which would involve increasing water rates over the next 15 years to cover project costs.

Other examples of communities replacing lead service lines can be found at the Environmental Defense Fund website: tinyurl.com/yx12278h.

It’s apparent that preventing lead in water is a better, more cost-effective approach than cleaning up after the damage is done. The American Society of Civil Engineers has given America’s drinking water infrastructure a “D” grade in its latest infrastructure report card (tinyurl.com/y24b2ty8), stating that the investment in America’s drinking water infrastructure has been inadequate for decades and will continue to be underfunded if crucial changes aren’t made. Upgrading existing water systems will require at least $1 trillion, according to the American Water Works Association.

PMI continues to take a proactive approach, as well, advocating for water infrastructure programs to be included in the fiscal 2020 federal budget. These programs include:

• Tax-exempt bonds, like Build America Bonds or Move America Bonds, to offer state and local governments and private-sector buyers with tax credits for investment in public infrastructure.

• A national infrastructure bank with an initial federal investment to offer long-term, low-interest loans for projects larger than $100 million that contribute to goals of regional or national importance and are backed by an identified revenue stream that repays the loan.

• Expanded federal credit assistance programs, such as Transportation Infrastructure Finance and Innovation Act, to support significant infrastructure projects and leverage private resources.

The PMI Outreach/Communications Committee also has been working on a communications effort to support PMI’s advocacy in relation to lead in water, with revisions to the federal Lead and Copper Rule now under consideration. The communications will contribute information about the true causes of the problem, so that the eventual solutions are effective.

Getting to Know Lowell Lampen

Continued from page 6

Kids now are each officially adults, two of whom graduated this year – one from DePaul University and the other from Homestead High School – and my oldest is on his way in a new career. To avoid a completely empty nest, we just brought home a Newfie-doodle pup (a mix of Newfoundland and Poodle) named Moose.

In my spare time: I enjoy traveling and togetherness with family. Each one of us is very close and I do treasure my role as husband and dad. Now that the kids have grown up, my wife and I will hopefully have more time to explore new places together.

When I face a challenge at work (or in life): I distill a problem into its essence, try to see it from all points of view, and then take action. This is still a work in progress for me.
Providing the ‘Golden Ticket’ – Experience to Young People

By Genevieve Valek, PMI Communications Team, Valek and Co.

Everyone is familiar with the world of internships. Held during the summer or following trade school or college graduation – or while also balancing coursework – internships are a common first step in the post-graduate world. Internships can boost your resume in your chosen field to its fullest potential before initiating a job search.

Plumbing Manufacturers International (PMI) member CSA Group has a comprehensive careers page (tinyurl.com/yxoh3mdm) where their newest opportunities are listed, including any internships that are available. For example, CSA Group recently searched for interns relating to strategy, enterprise risk management, gas cylinder testing, and quality systems.

An alternative to internships is on the rise, particularly in the manufacturing field – apprenticeships. PMI member Franke has an entire page dedicated to apprenticeships (tinyurl.com/y6zrcsgm), having offered them in Switzerland, Germany, China, the U.S. and more. A global company, Franke places an emphasis on building regional insights using the unique skills and ideas of its people. Combined with support from team leaders, apprentices can use these opportunities to dive into new things and nurture their talents.

And, as mentioned in a previous PMI@Work blog post (tinyurl.com/y6ruwjjw), Bradley Corporation offers a formal apprenticeship program, paid internships, and a high school youth apprenticeship program it formed in partnership with GPS Education Partners (gpsed.org).

Apprenticeships lead to valuable experience

In fields related to plumbing manufacturing, those looking to start a new career from scratch are turning to apprenticeships to gain hands-on experience. As reported by The Daily Progress, Octavia Sandridge decided to become a plumber when her previous housekeeping career ran out of gas. Sandridge applied to and was accepted into the University of Virginia Facilities Management’s four-year apprenticeship program. The program employs and trains participants with classroom and on-the-job experience in carpentry, masonry, plastering, heating and air conditioning, electrical training and plumbing. Despite having no previous practical experience, she is excited to start the program and turn over a new leaf.

According to the U.S. Department of Labor (DOL), in 2017 there were 533,607 people in federally approved apprenticeship programs, including 181,563 people just like Sandridge, who had just started their studies (tinyurl.com/y5wub797). An estimated 64,000 of those people completed their programs that year. Of all of these active apprenticeships, about 68% were in the construction industry.

Read more: safeplumbing.org/communications/PMIBlog

Read Blog Online

Read the rest of this article on our PMI@Work blog: safeplumbing.org/communications/PMIBlog

PMI@Work explores efforts to develop the manufacturing workforce for the future, particularly among PMI members. If you’d like to submit a post or content for consideration, contact PMI communications team member Ray Valek at ray@valekco.com.