AIChE[®] Management Insight

Management Division Highlights

Inside this Issue

A New Year and New Opportunities	1-2
Changes in Division Leadership	2
Remarks by Past Chair Aguirre	3
2018 Management Award Photo and 2019 Call for Nominations	4
2019 Management Division Service Award To Hipple in New Orleans	5
AIChE Spring 2019 Meeting in New Orleans — Management Division Technical Programming	6-7
AIChE Spring 2019 Meeting in New Orleans — Management Division Co- sponsored Programming for Leader- ship Development Topical B	7
Management Division— Social and Business Events	8
0	8 9- 12
Social and Business Events AIChE President-elect to Speak in Management Division Spring Meet-	9-
Social and Business Events AIChE President-elect to Speak in Management Division Spring Meet- ing Session AIChE Annual 2019 Meeting in Or- lando — Management Division Ses-	9- 12
Social and Business Events AIChE President-elect to Speak in Management Division Spring Meet- ing Session AIChE Annual 2019 Meeting in Or- lando — Management Division Ses- sions Young Professionals: Senior Management Division Experts	9- 12 13
Social and Business Events AIChE President-elect to Speak in Management Division Spring Meet- ing Session AIChE Annual 2019 Meeting in Or- lando — Management Division Ses- sions Young Professionals: Senior Management Division Experts Support our Growth! Recognition of Past Division Chairs	9- 12 13 14

A New Year and New Opportunities

I want to take the opportunity of this first 2019 Newsletter to say "Hi" and wish everyone a Terrific New Year. The preceding chairs have through a combination of inspired leadership and considerable perspiration given us a great opportunity to continue the Division's growth and spreading impacts through the significant initiatives that they put in motion such as strengthened technical programming, outreach to young professionals, reinvigorated awards program, and commitment of Division resources of people and money. Of course, with any new opportunity comes a challenge and ours is not only to maintain the momentum of efforts we've already started but to develop and implement new ideas and programs. As one who has been involved in the Division for more than 25 years both as an active member and a former AIChE staff liaison I am acutely aware of this challenge and hope that I can keep things moving forward. Fortunately many of our past chairs and leaders continue to serve with us and we also benefit from a number of recent recruits serving on the board and on a number of standing and ad hoc committees. Indeed, one of the most exciting recent developments in the Division is the infusion of new blood into all aspects of our operations. As mentioned in an article by Aditi Khadilkar later in this newsletter, young professionals can learn much by active participation in the Division and while that is very true I can certainly attest to the fact that the rest of us can learn as much or more by working with them.

I don't want to repeat information sprinkled throughout this newsletter but I do want to briefly touch on a few of the things that I believe are most exciting. These include the vigor of our technical programming as evidenced by the spring sessions on Open Innovation featuring AIChE President Elect, Monty Algers (see his interview included here) and on ethical issues in process safety and career improvement. I'm also excited by our increased co-sponsorship of sessions organized by others such as our sponsorship of key sessions from the Leadership Development Topical in New Orleans. The continued development of our awards

program through the efforts of the standing committee established a few years ago has been both exciting and rewarding to watch. The quality of the recipients and the strength of their meeting presentations have truly amazed me.

A New Year and New Opportunities -(Continued)

You will hear more in the near future about the new award we are planning for Young Leaders and the decision we've made to invest a significant amount of treasury funds into new programs designed to facilitate participation by younger engineers and managers in AIChE and the Management Division.

Let me end this by inviting those interested in learning more about management and leadership to seriously consider becoming more active in the Division in some small way. Take a look at our webpage on the AIChE website, consider submitting a paper for the Orlando Annual Meeting (sessions are described later and a link to the Call for Abstracts is provided). I believe that you will harvest far more than you invest. Please accept my invitation to contact me at josec@aiche.org to discuss your interests and available opportunities.

I hope to see many of you in New Orleans.

Sincerely,

Joe Cramer

Chair, Management Division

Changes in Division Leadership

The election of division officers and directors in late 2018 resulted in a new Chair, Vice Chair, and Secretary as well as two new Directors.

Joe Cramer moved from Vice Chair to Chair, while Fernando Aguirre has become our Immediate Past Chair. Austin S. Lin was elected Vice Chair, and Babak Rafienia was elected Secretary, and Bill Welker continues as Treasurer. Mahdi Nouri and Jack Dever were elected as Directors.

Our new CTOC Representative is JoAnn Lighty.

A complete list of the Board and other volunteer positions, with contact details, is included in the last page of this newsletter.

Remarks by Past Chair Aguirre

It was a great honor to serve as division chair during 2018 and I would like to thank all Board members and other volunteers that helped me so much in making my job easier. As Joe Cramer, 2019 Division Chair, says in his column on the first page of this newsletter, we are pleased to have attracted several energetic new volunteers that are contributing to making the division more meaningful to a broader group of members. We started last year by offering free division membership to Young Professionals (YPs) and we will follow by offering the same to 2018 chemical engineering graduates this year. We also have a working group currently developing guidelines to reward and attract larger participation by YPs in Management Division sessions.

As you can read in the last page of the newsletter, we have a few new Board members this year. I would like to acknowledge the efforts of Mark Swientoniewski, Chair of the Nominating Committee in 2018, for his efforts in recruiting several excellent candidates and ensuring that elections were held before the end of the year. I will have the challenge in 2019 to continue to improve the nomination and election process with the goal of increasing the number of members voting. As some of you know, the Division leadership holds monthly conference calls that are open to any interested volunteer. You do not need to be on the Board to start getting involved and participating. Although the Board has 12 members, we currently have more than 30 interested volunteers regularly invited to our conference calls and meetings. In 2018 we created a division Engage community hosted by AIChE to communicate and disseminate information among this group of volunteers. We welcome anyone interested in getting more involved, for which I encourage you to write to Joe Cramer or any of the officers.

Another personal goal for this year is to achieve increased participation in the Management Division LinkedIn group. As of January 2019 we have 78 members and we welcome ideas and suggestions of the type of information you would like to see posted. If you are not already a member of our division LinkedIn group, please visit us at the following link and request to be a member.

https://www.linkedin.com/groups/12101021/

I look forward to further growth and improvements in our division activities in 2019 and plan to remain actively involved in my role as Past Chair and member of the division.

Fernando J. Aguirre, PhD, PE, FAIChE Past Chair, Management Division

2018 Management Award Photo and 2019 Call for Nominations

The division presented the 2018 Management Award to Gayle J. Gibson on October 30, 2018 at the AIChE Annual Meeting held in Pittsburgh, Pennsylvania. Gayle Gibson, retired Director of Engineering for E.I. du Pont de Nemours & Company, Inc. was selected among many highly qualified nominees, which made the task of the Awards Committee very difficult. Presentation of the award was made by Billy Bardin, representing our sponsor The Dow Chemical Company, followed by an excellent presentation by Gayle Gibson titled "Rising to the challenge: Successful leadership in uncertain times." The session was complemented with presentations by two past Management Award recipients: Markus Scheller (2015) and Kenneth Rueter (2016), followed by a panel led by Harold Conner that included the three speakers and Management Award recipients. We had a full room and lots of interest by meeting attendees.



From left to right: Billy Bardin (The Dow Chemical Company), Gayle J. Gibson (2018 Award recipient), Fernando J. Aguirre (2018 Management Division Chair)

We are now actively seeking nominations for the 2019 Management Award. Please consider nominating a deserving colleague or an outstanding manager you may have had the opportunity to work with. The deadline for nominations is March 31, 2019 and you can find the criteria, nominating form, and other details in the following link:

https://www.aiche.org/community/awards/management-award

2019 Management Division Service Award To Hipple in New Orleans

Selection of the 2019 Management Division Service Award was recently completed with the recipient being Jack Hipple, a former executive at Dow Chemical and a consultant and AIChE Academy instructor. Jack's nomination was based on his outstanding service to AIChE's Management Division for more than 10 years. He has held almost every position in the division during that period including two years as chair. His contributions as a key programmer in division sessions and workshops over the last decade have been invaluable. Jack has been one of the Division's "Go To" Guys throughout the years at the same time that he carried on a successful consulting and teaching practice and served AIChE in numerous other capacities including service as a member of the Institute's Board of Directors. The award will be presented to Jack in New Orleans on Tuesday night (3/2/19) at the joint dinner with the Environmental Division and the Chemical Engineering and the Law Forum (tickets are available at \$65 for purchase when one registers...advance purchase is recommended.)



AIChE Spring 2019 Meeting in New Orleans — Management Division Technical Programming

The Division has helped organize an exciting program of sessions at this year's Spring Meeting in New Orleans (March 31-April 4). The program is broad reaching and extensive enough (with 7 primary sponsored and 5 co-sponsored sessions and a ticketed breakfast) to keep those interested in management and leadership issues busy hopping from session to session through mid-day Wednesday. The seven 90 minute sponsored sessions cover topics ranging from ethical issues in process safety to the benefits of using Open Innovation to extend the effectiveness of R&D budgets. Issues covered include things like starting your own business, improving performance and reinventing your next career role, subjects that apply to both younger and more experience chemical engineers. Those attending the Open Innovation Session will get a chance to meet AIChE's President Elect, Monty Algers, and benefit from his experience in R&D Management (see his interview later in this newsletter).

In addition the Division is co-sponsoring a number of sessions in the Leadership Development Topical Conference that are designed specifically for assisting young professionals in their career development...and which may also help old dogs learn a new trick or two.

For complete information on specific timing, room assignment and presentations just follow this link <u>(https://aiche.confex.com/aiche/s19/webprogram/05.html)</u>

The following is a summary for your planning purposes of the various Management Division offerings. Please refer to the link above to obtain more details on each session.

The Management Division is offering a two-session set of talks entitled "Lessons Learned from the Industrial Practice of the Open Innovation Model for the Development of New <u>Products</u>" on Monday afternoon, April 1, and co -sponsored by the Process Development Division (12). A highlight of the first is a talk by Dr. Monty Alger, President-elect of the AIChE. This is a great honor for our division.

On Tuesday morning, April 2, the division is presenting a two-session set entitled <u>"Ethical Issues in Process Safety"</u>.

AIChE Spring 2019 Meeting in New Orleans — Management Division Technical Programming— Continued

On Tuesday afternoon, two sessions are presented, the first entitled "<u>Turning an Idea into a Reality: Developing a Company</u>", and the second entitled "<u>Managing Continuous Improvement in the Workplace</u>". The latter session is cosponsored by Technology Transfer & Manufacturing (12C).

On Wednesday morning, April 3, the Management Division is presenting "<u>Managing</u> <u>Yourself: Reinventing Yourself for Your Next Role</u>", co-sponsored by the Young Professionals Committee (YPC) (18C).

Co-sponsored Programming for Leadership Development Topical B

Again, for planning purposes, the summaries of the offerings cosponsored with the Leadership Development

Topical follow Details on these are also available via the link on page 6

<u>Creating Inclusive Communities in Engineering</u> is presented in the early afternoon of Monday, April 1, and <u>TB000 Women in Fuels and Petrochemicals</u> is in the late afternoon also on Monday.

<u>TB000 WIC Breakfast Keynote (Ticketed Event)</u> is taking place at 8:00 am on Tuesday, April 2 and <u>It Takes a Village</u> will be presented on Tuesday, in the late morning time slot.

<u>Women in Process Safety</u> will be presented in the early afternoon of Tuesday, April 2, and <u>TB000 2 Way Communications</u> will take place in the late Tuesday afternoon slot.

Management Division— Social and Business Events in New Orleans

There are two events on Tuesday directly involving the Management Division. The first is the business meeting of the division, which is open to all members and non-members. The dinner at the Spring is organized by our division [Management] and it is jointly held with the Environmental Division and the Chemical Engineering and the Law Forum. This is a ticketed event, open to all.

Management Division Meeting Tuesday, 12:00 to 1:15 Hilton (Room to be announced on-site)

Management & Environmental Divisions, and Chemical Engineering and the Law Forum Group Dinner

Desi Vega's Steakhouse

628 Saint Charles Ave, New Orleans

> Tuesday, 6:30 pm Fee: 65 USD

AIChE President-elect to Speak in Management Division Spring Meeting Session



Dr. Monty Alger, President-elect of the AIChE, will be presenting in one of the upcoming Management Division Sessions at the Spring Meeting. He is the keynote speaker in the session "Lessons Learned from The Industrial Practice of the Open Innovation Model for the Development of New Products or Processes". His talk is entitled "Building a Continuous Learning and Innovation Network". This session is cosponsored by the Process Development Division.

Dr. Alger is Professor of Chemical Engineering at Penn State University. Past affiliations include Chief Technology Officer and Vice President of R&D at Air Products, Board Member of AIChE and General Manager of Technology for GE Advanced Materials.

Dr. Monty Alger

Vince Magnotta, Session Chair, had an opportunity to catch up with Dr. Alger and discuss his upcoming keynote presentation.

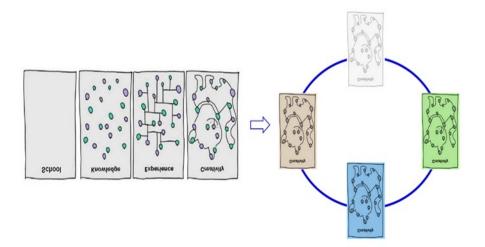
1. Management Division: Given your unique perspective of being an industry executive in R&D and now a university professor, how would you define open innovation?

Dr. Alger: Open innovation promotes exploring outside an organization for new opportunities. In today's world it is hard to be good at everything. Often there are external capabilities, ideas or technologies that can help with new process, product or application development. My first experience with open innovation was with a consumer product company years ago when I was working in the Silicone Industry. Our business CEO and the consumer's biggest realizations was that our "stage-gate" process was an input to their "stage-gate" process. When we thought a new product was ready for sale, in reality it was an option for the customer to consider at the beginning of their development process. That led to a lot of discussion on how we developed new products with customers. We did lean-value stream mapping on our stage gate process and made a number of significant changes. In conclusion, taking the first steps of looking outside your organization can lead to new insights about how to be better connected and responsive to market opportunities.

2. Management Division: What are some examples of how industry and academia can think "out-of-the-box" to reduce product development cycle times and also reduce overall costs of development?

Dr. Alger Interview— Continued

Dr. Alger: We live in a globally connected digital world. Many of our practices are linear with longtime constants. The first step is to look at how we think about building new integrated practices for sharing and exchanging knowledge and new concepts. The graphic below captures the change that is underway. The legacy perspective is that you start early life in school and linearly progress through life acquiring experiences and learning to "connect the dots". Today it is possible to find solutions to about any problem or need by using the internet. We have moved from local knowledge to a having the nearly instant ability to find what you need. Of course, this requires an individual to have a sufficient base of knowledge to be able to understand what they have found. Several of us at Penn State are working with Burning Glass, a data analytics company, to organize the jobs and skills needed in the market. We are talking to hiring companies to learn their needs and interests so that we can design new learning modules that connect skills with application. Many opportunities exist to think differently about how we do work, how we connect and reduce cycle time and increase the rate of innovation to market. AIChE has a unique opportunity to bring new thinking to the industry through connection to public, private and government organizations.



3. Management Division: What role does/can AIChE play in optimizing open innovation? Are there opportunities for improvement?

Dr. Alger: AIChE can be a forum to highlight and share across organizations and provide training through case studies in sharing practices and approaches. Successes and failures need to be discussed– the latter often provide a lot more insights.

Dr. Alger Interview— Continued

The AIChE could consider having webinars or workshops teaching the principles and practices of open innovation (including how to use the practices of licensing, of joint development agreements, government funded R&D and of corporate -funded R&D at universities, institutes and the government). These efforts would be valuable to everyone in the development process of new products---and have the greatest value to young engineers in both industry and academia just entering the innovation process. Another key learning to instill is that the developers of new products or processes think globally to identify open innovation partners.

4. Management Division: How can a continuous learning network further the goals of optimal open innovation?

Dr. Alger: We are in the "How do I" world that YouTube helped create. Have a problem with your garage door, need to change a battery in your remote control? Probably there are several solutions on YouTube. Recently, I needed to find a wire break in our electric dog fence. YouTube showed me how - wrap a wire around a spark plug on a lawn mower engine and attach to one end of the dog fence. Tune in AM radio to 550 and walk in a grid pattern and note sound change on the AM radio. It worked.

Imagine an organized, curated knowledge network that combines basic skills and application examples and training. If we can develop application case studies, from market practice, and integrate with demonstration of basic skills, this can be a great resource for education, doing projects and personal skills development. We can then start generating the needed content. Ask young engineers and scientists "what do you now know you wish you had known while you were in school?" Ask experienced people, "what have you drawn on a nap-kin or shared with someone over 50 times?"

The same practices could also be used for proprietary knowledge capture and sharing within organizations. There are lots of possibilities and AIChE can help convene groups with a broad range of skills and experiences to make this a reality. This is a chance to build on existing initiatives such as AIChE Academy.

5. Management Division: Further engaging young engineering professionals is an ongoing goal of the AIChE. What role do you see young professionals playing in achieving optimal open innovation?

Dr. Alger Interview— Continued

Dr. Alger: Young professionals have always lived in a global, integrated world. They are much more conversant with technology and how to use systems. Whenever you try to develop a new idea there is always a group that will ask "why would you want to do that?". There is often another group that will say "can you imagine the possibilities if we can make that happen?". Different perspectives, both important. Need balance. The young professionals can provide fresh thinking around established practices, new ideas for radically new practices. I look forward to discussions on a range of new ideas that we might be able to bring to market through partnership with AIChE.

Final thoughts:

Dr. Alger: I look forward to the Spring meeting discussion and to hearing about other ideas that are underway.

Please plan to attend Dr. Alger's keynote presentation at the Spring Meeting. He is talking at 1:30 PM on Monday April 1in the Cambridge Room at the Hilton.

Dr. Alger can be reached at <u>alger@psu.edu</u>

Vince Magnotta

AIChE Annual 2019 Meeting in Orlando — Management Division Sessions

Call for Abstracts Now Open

Take this opportunity to get involved, shaping those session currently planned or future ones

The Call for Abstracts Closes on April 12!

Sessions currently planned

Management Division (05)

05000 AIChE Management Award Recipient Presentation Session 05001 Managing in the High Tech World 05002 Women Chemical Engineers: Managing to retain them

Management Division—Professional Development (05A)

05A00 Exploring Ethical Dilemmas in the Workplace: A Workshop

05A01 How to Prepare Yourself for Management

05A02 Workshop on Utilizing Leadership Advisory Boards (aka Master Minding)

Call for Abstracts Now Open

Young Professionals: Senior Management Division Experts Support our Growth!

This page is devoted to the Young Professionals group, and will appear in future issues of this newsletter. The following message was written by Aditi Khadilkar, a member of the Management Division.

Engagement with AIChE's Management division as a Young professional (YP) brings forth a host of opportunities to learn from senior managers and division stalwarts, while simultaneously interacting with young managers and other budding members. Contributing to the division as a part of such a diverse team itself provides lessons in leadership and growth opportunities.

The division has the development of young professionals/managers as one of its goals. In keeping with this objective the Management Division conducted a series of sessions, co-hosted with the YPC division at the Pittsburgh Fall 2018 AIChE Annual Meeting. The sessions that were tailored to the development of young professionals included generalized career development sessions such as preparing for a new job/role and networking. In addition, sessions targeting managerial skills such as Generating Ideas, Working with People, and Managing Projects and applied project management principles were conducted and well-received. In addition, practical advice from Dupont's Gayle Gibson, Markus Scheller, an experienced industrial executive, and Kenneth Rueter, President of UCOR on leadership during uncertain times was invaluable. In today's world of mergers and acquisitions, learning from experienced leaders about handling major transitions such as DOW-Dupont transformation helped young professionals to gain new perspectives.

Similarly more excitement and training for young professionals is to be expected in the upcoming Spring session next month. See the link at the middle of page 6 for details.

The division not only conducts sessions at the AIChE Meetings, but has also initiated new activities for the benefits of young professionals this year. These include funds for awards for young professionals. These will include awards for service and contributions. Additionally, a new webinar series is being initiated that will be directed towards educating young professionals on managerial and other career development skills. If you would like to learn about a specific topic from senior members of our division or wish to share your experiences as articles, please send your requests to adusci@gmail.com. We shall consider including material on your suggestions in our webinar series or in future newsletter publications.

Recognition of Past Division Chairs at the 2018 AIChE Pittsburgh Meeting

The Pittsburgh 2018 Annual Meeting saw two Awards of Appreciation given. The awards were given to Fernando Aguirre and Nemoy Rau.

The Award to Fernando reads:

With Grateful Appreciation to Fernando Aguirre from the American Institute of Chemical Engineers for Excellence and Service as Chair of the Management Division in 2018.

Mark Swientoniewski, as past Chair, presented the award to Fernando Aguirre at the Pittsburgh 2018 Annual Meeting.



Also, Mark Swientoniewski, as past Chair, recognized Nemoy Rau for his excellent service as Chair of the Management Division in 2016.

The Board of the Management Division wishes to thank Fernando and Nemoy for their leadership of the Division.

Management Division Leadership for 2019

Officers

Chair	Joseph J. Cramer AIChE	josec@aiche.org
Vice Chair	Austin S. Lin Google	AustinSLin@gmail.com
Secretary	Babak Rafienia AMACS Process Tower Internals	Brafienia@amacs.com
Treasurer	William S. Welker	<u>Nestlé USA</u>
Past Chair	Fernando J. Aguirre Heat Transfer Research, Inc.	<u>fja@htri.net</u>
Directors		
2017 - 2019	Harold T. Conner, Jr. URS/CH2M Oak Ridge, LLC	hconnerjr@aol.com
2017—2019	Markus E. Scheller	scheller54@yahoo.com
2018—2020	Quinta Warren AAAS/Department of Energy	<u>quinta.nwanosike.warren@gmail.com</u>
2018—2020	Brandon Harding Andeavor	<u>brandonaharding@gmail.com</u>
2019—2021	Mahdi Nouri Jacobs	<u>Mahdi.Nouri@Jacobs.com</u>
2019—2021	Jack Dever MATRIC	<u>Jack.dever@matricinnovates.com</u>
Other Positions		
Programming Chair	Donna Bryant	donna.bryant@syngenta.com
Awards Committee C	Chair George W. Newcomb	<u>geonewcomb@gmail.com</u>
Newsletter Editor	Joe Porcelli	jvpii@jvporcelli.com
Webmaster	Fernando J. Aguire	<u>fja@htri.net</u>
CTOC Representative	e JoAnn Slama Lighty	joannlighty@boisestate.edu
AIChE Staff Liaison	Darlene Schuster	darls@aiche.org