

AIChE®

# Management Insight

## New Faces and New Look

You may have been wondering what happened to our newsletter since it has been a year from the last issue. Thanks to the efforts of Diana Matonis, division vice-chair, our newsletter acquired a new and more appealing look. She did a great job in designing the new template used as the basis for this issue.

There are several new faces in the division leadership this year, including the Chair, 1<sup>st</sup> Vice Chair, Webmaster, Young Professionals Liaison, and several directors, a good sign of a healthy and active group. John Forgac was elected Chair in 2011 replacing Jack Hip-

ple, who served as Chair in 2010. We thank their contributions to the division. Diana Matonis was elected 1<sup>st</sup> Vice Chair and Gavin Towler is currently assisting with coordination of programming activities within the division. Other new volunteers include Tasha Desai as Webmaster and Nitin Kolhapure as Young Professionals Liaison. Contact details of the division leadership are provided in page 6.

We plan to stay in touch more often than this past year and welcome any feedback or ideas for new content that you may wish to share with us.



John Forgac



Jack Hipple

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## 2011 AIChE Annual Meeting

Minneapolis, Minnesota, USA (October 16-21, 2011)

The 2011 Annual Meeting is being held at the Minneapolis Convention Center, with the following sessions sponsored or co-sponsored by the Management Division.

### Monday, October 17, 2011

8:30 - 11:00 am Law, Risk, and Ethics of Technology and Project Management

12:30 - 3:00 pm 2011 Annual Meeting Plenary—Chemical Science Innovation: Future of the US Chemical Enterprise I

3:15 - 5:45 pm 2011 Annual Meeting Plenary—Chemical Science Innovation: Future of the US Chemical Enterprise II

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## 2011 AIChE Annual Meeting

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### Tuesday, October 18, 2011

8:30 - 11:00 am CACS 30th Anniversary Symposium: Global Career Opportunities for Chemical Engineers

Tools and Techniques for Managing Innovation from Beginning to End

12:30 - 3:00 pm Developing Leadership Skills

3:15 - 5:45 pm You Got your PhD, Now What?

### Wednesday, October 19, 2011

8:30 - 11:00 am Innovation in Consumer Product Management and Design

12:30 - 3:00 pm Challenges in Open Innovation and Growth

## 2011 Management Division Award



Frank van Lier

The Awards Committee is pleased to announce the selection of Frank van Lier, Process Technology & Sourcing Team Lead, The Lubrizol Corporation, as recipient of the 2011 Management Division Award. The award will be presented at the 2012 AIChE Spring Meeting in Houston, Texas. In addition to his many contributions at Lubrizol, Frank has contributed greatly to AIChE and specifically to the career development emphasis of its Management Division. In addition to having

served in several officer positions, Frank has unselfishly led an annual career development workshop at the Annual Meeting, providing an interactive panel workshop for young engineers, discussing the many challenges of a management career in the chemical industry.

We thank The Dow Chemical Company for sponsoring this award.

## Division Business Meeting & Dinner

Please join us for the Management Division business meeting and dinner during the Annual Meeting in Minneapolis. The dinner is scheduled on Tuesday, October 18, 2011 (6:30 to 8:30 pm in The News Room, 990 Nicollet Mall) and is being organized with the Environmental Division and Chemical Engineers & the Law Forum.

# Call for Papers—2012 AIChE Spring Meeting

April 1-5, 2012

Houston, Texas, USA

We encourage you to submit an abstract to any of the sessions sponsored or co-sponsored by the Management Division at the 2012 AIChE Spring Meeting which will be held in Houston, Texas next April. To submit an abstract online go to:

<http://aiche.confex.com/aiche/s12/cfp.cgi>

The sessions planned for the 2012 Spring Meeting are the following:

## **Best Practices in Pilot Plant Development and Operation**

Papers can address a wide range of operational issues in pilot plants from degree of automation, preventative maintenance, use as training tools, ergonomic layout and design.

Sponsor: Pilot Plants

Co-Sponsor: Management Division

**Chair**: Adam Whalley, [awhalley@zeton.com](mailto:awhalley@zeton.com), +1 (905) 632-3123

**Co-Chair**: Juben Chheda, [juben.chheda@shell.com](mailto:juben.chheda@shell.com), +1 (281) 544-8232

## **Litigation Perspectives for Chemical Engineers**

This invited session provides an introduction to the various types of litigation that chemical engineers may become involved with during their careers, whether from a scientific/academic perspective or from that of a practicing engineer. Specialists in relevant litigation fields will present an overview of the key legal issues in each area, provide case study examples of litigation, and present guidance and tips for engineers that find themselves involved in these cases. After the presentations in each area, the speakers will provide an interactive, moderated panel to address questions from the moderator as well as audience participants. Litigation areas to be addressed include: Intellectual property/patents/trade secrets/copyrights; Professional liability; Licensure and Ethics; Fraud; Defamation; Insurance; Joint Ventures; Employment; Product liability; Toxic torts; Environmental.

Sponsor: Chemical Engineering & the Law Forum

Co-Sponsors: Education, Graduate Education, Environmental Division, Management Division

**Chair**: Gayle S. Koch, [Gayle.Koch@brattle.com](mailto:Gayle.Koch@brattle.com), +1 (617) 864-7900

**Co-Chair**: Ralph A. Midkiff, [Ralph.Midkiff@chamberlainlaw.com](mailto:Ralph.Midkiff@chamberlainlaw.com), +1 (713) 658-1818

## **Technology Transfer: From R&D to Deployment**

Successful deployment of new technology requires transfer of know-how and opportunity between business and technology groups, and from technology teams responsible for innovation, process development, demonstration, and commercial deployment. Third party collaborations between organizations with differing goals is a significant issue to address. This session is devoted to case studies and best practices in technology transfer, including examples of both successful deployments, and cases where difficulties in technology transfer were a dominant obstacle to be overcome.

Sponsor: Technology Transfer

Co-Sponsor: Management Division

**Chair**: Juben Chheda, [juben.chheda@shell.com](mailto:juben.chheda@shell.com), +1 (281) 544-8232

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*Submissions of abstracts  
for the 2012 AIChE  
Spring Meeting are  
accepted until  
**October 14, 2011***

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*For questions about any  
of the sessions, please  
contact the Chair or Co-  
Chair listed.  
You may also contact  
Gavin Towler, who  
coordinates the  
programming activities  
of the division, with  
questions or to suggest  
topics  
([gavin.towler@uop.com](mailto:gavin.towler@uop.com),  
+1 (847) 391-2788).*

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## Call for Papers—2012 AIChE Spring Meeting

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### Patenting Basics: Patents 101

This session will provide a fundamental review of the patent procurement process and patent law in general, and is designed for anyone who has an interest in the patenting process and/or deals with patents in their work in industry and/or academia. Little or no background knowledge in patents is needed by those attending. The session will begin with the very basics of the patenting process as well as providing basic terminology. Next, it will provide a basic synopsis of the patent procurement process with the US Patent and Trademark Office. The session will then focus on portions of a patent most relevant in disputes and litigation. Case studies involving various patent scenarios will be presented. The session will wrap up with a question and answer session and will provide a foundation for two following patent sessions focusing first on drivers for innovation in energy technology and, next, on litigation for engineers. Abstracts are solicited for case studies from lawyers and engineers with various patent experience.

Sponsor: Chemical Engineering & the Law Forum

Co-Sponsors: Education, Graduate Education, Emerging Energy Processes, Environmental Division, Management Division, Process Research and Innovation

**Chair**: Vivek Koppikar, vivek\_koppikar@hotmail.com, +1 (202) 686-5922

**Co-Chair**: Nada Marie Anid, nanid@nyit.edu, +1 (516) 686-7931

### A Legal System as a Driver for Innovation in Energy Technology

This session will provide an overview of how the legal system acts as a primary driver for innovation in energy related technology. From the Clean Air Act of 1970, to the Montreal Protocol of 1988, to the new renewable fuel standards (RFS2) implemented in 2010 by the EPA, national governments intervene for the good of society to require industry to provide “cleaner” technologies. These legal drivers in turn cause the industry to invest a great amount of funds to innovate and meet the new legal requirements. Panelists will discuss: 1) a few of the policy issues that are considered by governmental institutions in implementing the new laws and regulations, 2) government grants or funds that are made available to stimulate innovation in such capital intensive market, and 3) considerations on how to protect valuable intellectual property that will be created in getting the new innovations to market.

Sponsor: Chemical Engineering & the Law Forum

Co-Sponsors: Graduate Education, Emerging Energy Processes, Environmental Division, Management Division, Process Research and Innovation, Sustainable Energy, Sustainable Engineering Forum

**Chair**: Richard D. Jordan, rjordan@dickinsonwright.com, +1 (202) 659-6950

**Co-Chair**: Mary Ternes, Maryellen.ternes@mcafeetaft.com, +1 (405) 552-2303

### Young Professionals in Process Development

This session addresses topics of interest to young professionals with less than 10 years experience and others with interest in process development as a career choice. Topics can include: (1) Technical vs. management career path; to MBA or not? (2) Working on advanced degrees while working: advantages, options. (3) Breadth and depth: maintaining a core skill set to anticipate future career opportunity. (4) Jumping into white spaces / continuing professional growth, career-long in industry. (5) Process Development: a differentiating skill for industry. (6) Information needs: what information is desired or needed for career decision making, from the YP perspective? (7) Others? Pick your own topic based on your career experiences for mentoring, coaching, or advising others seeking a career in process development.

Sponsor: Process Development Division

Co-Sponsors: The Young Professionals Advisory Board (YPAB), Management Division

**Chair**: Joseph B. Powell, Joe.Powell@shell.com, +1 (281) 544-8976

**Co-Chair**: Meagan Lewis, meagan.simantz@gmail.com, +1 (847) 391-3444

# Managing Innovation

Jack Hipple, Eldon Larsen, Mukund Karanjikar

Innovation and its management is the hot topic of the last decade in many industries, including the chemical industry. We have come to realize that Six Sigma and Design for Six Sigma can eliminate variation in what we know how to do, or plan to do, but cannot by themselves produce innovation.

Innovation starts with ideas, then grows through cultivation within an organization, and eventually matures into a project that must be managed and implemented. These ideas may be new to a business and the company and contain many risk factors. Their flesh and bones need to be provided by people and their supporting organizations. Finally, the business and manufacturing concepts behind the innovation must be implemented by smart project management. This topic has been the subject of workshops presented at recent AIChE meetings by its Management Division and will once again be presented at the annual meeting in Minneapolis in October 2011.

Our study of these issues has yielded the following recommendations for your consideration

1. Do not confuse innovation with tools such as Six Sigma, Lean, and QFD. Though innovation tools may be required to complete a project in these other areas, the development of a totally new product or business will involve issues far less straightforward.
2. The key factors in shaping and developing an innovation include scope, fit with the corporation and business, clear definition of the business opportunity, intellectual property and licensing while the softer issues will include perseverance, collaboration, and project management across different disciplines.
3. When considering commercial strategy, it is critical that the function that the new product or service provides, not what it is, be considered in the context of competition. There are many ways to skin cats.

A new product, service or business that eliminates the need for something will be most successful. Think function, not product.

4. Innovators must know themselves, their “styles”, and their corporate surroundings in order to effectively “sell” their innovative ideas. They must be willing to adapt, accept criticism and constructive input, and accept and acknowledge support and help from others.
5. Planning must be adaptable, flexible, and realistic. Overly optimistic planning simply results in credibility issues long term.
6. Caring about people is critical to innovation success. No successful innovation occurs without the help of many people. Acknowledge and recognize this help.
7. It is impossible to over communicate in innovation project management. In addition to the normal style and geographic boundaries that exist in all projects, innovation has the extra challenge of something new. Two way communication and sincere listening is critical. A communication plan is as important as a critical path diagram. The “doers” need strong input on the plans they are expected to execute.
8. An innovation project requires a leader who sets expectations and communicates clearly. The range of acceptable expectations must be thoroughly understood. The leader must insure alignment of individual activities and hold team members accountable. Team members must be chosen for the skills and abilities, not simply based on availability. Vision, effective decision making, truth telling, and perseverance are essential
9. Good innovation project meeting practices are essential, including agendas, focus, listening, and idea building. Whether resources, time, or performance, a criterion is the limiting issue which must be known and constantly reassessed. A clear and complete work breakdown structure can serve as the key project communication structure.
10. Innovation projects, as with all projects, need SMART objectives (specific, measurable, agreed-upon, realistic, and time oriented).

## WORKSHOP

The next workshop on “Innovation from Beginning to End” will be offered at the 2011 Annual Meeting in Minneapolis. This workshop presented by Dr. Eldon Larsen (Marshall University), Mukund Karanjikar (Cerametec), and Jack Hipple (Innovation-TRIZ) will overview the requirements for a complete, successful innovation effort within a corporate structure. This workshop has grown steadily in popularity during the last three years it has been offered.

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*“Innovation starts with ideas, then grows through cultivation within an organization, and eventually matures into a project that must be managed and implemented.”*

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## Student Program

The now traditional “Careers in Management Workshop” conducted by leaders of our division at the AIChE Annual Meeting is currently planned for Saturday, October 15, 2011 (1:00 to 4:00 pm) in Minneapolis. This year’s panelists include Rosemarie Wesson, Dick Siegel, Eldon Larsen, Jack Hipple and Frank van Lier.

## Division Website

Tom Mildenhall and Tasha Desai have been working on the new division website. You can explore the website by visiting the following link:

<http://management.aiche.org>

We welcome input and feedback from all division members as to the kind of information you would like to see in our website.

## Management Division Leadership (2011)

### Officers

Chair	John Forgac BP	john.forgac@bp.com +1 (630) 420-4960
1st Vice Chair	Diana Matonis DCP Midstream	dmatonis@flucomp.com +1 (708) 645-6855
2nd Vice Chair	Vacant	
Secretary	Bill Welker Nestlé USA	bill.welker@us.nestle.com +1 (818) 551-3544
Treasurer	Rosemarie D. Wesson National Science Foundation	rwesson@nsf.gov +1 (703) 292-7070

### Past Chair

Past Chair	Jack Hipple Innovation-TRIZ	jwhinnovator@earthlink.net +1 (813) 994-9999
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### Directors

2009 - 2011	Eldon R. Larsen Marshall University	Larsene@marshall.edu +1 (304) 746-2047
2009 - 2011	Charles Roe Algisys, Inc.	clroe12@aol.com +1 (440) 684-0980
2010 - 2012	Jeff Lindsay Asia Pulp and Paper	jeff_lindsay@app.com.cn
2010 - 2012	Robert A. Madayag III	Robert.Madayag@troutmansanders.com +1 (404) 885-3238
2011 - 2013	Richard D. Siegel R&B Consulting Services	richarddsi@aol.com +1 (781) 935-7555
2011 - 2013	Frank van Lier Lubrizol Corporation	Frank.vanLier@lubrizol.com +1 (440) 347-2357