

As companies struggle for survival in today's difficult economic environment, the pressure to increase efficiency has never been greater. This makes Lean's basic premise, anything that doesn't add to customer value is waste, more topical than ever. Recent AMFs have made increasingly clear that Lean tools can be applied not only to reduce traditional targets of waste, but also to reduce energy, water consumption, and hazardous materials. The latter targets are rising rapidly in importance in the media, in all levels of government, and in companies of all sizes.

In that spirit, we are pleased to host a set of presentations that captures best practices for both Lean and Sustainability. *Herman Miller* and *United Technologies* are both leaders in sustainability, and senior managers from these companies will share how they engage their supply chain to achieve corporate sustainability goals and lessons learned based on experiences within a variety of global economic realities. *Greatbatch Medical's* Alden, NY facility was recently awarded an *Industry Week Best Plant's Award* and will share how it used Lean concepts and a passion for excellence to transform the company into a leading supplier to the major medical OEMs. Managers from *Pittsburgh Glass Works (PGW)*, a leader in the automotive OEM and aftermarket glass business, will share how it applied standardized work to promote a sustainable lean culture, reduce labor costs and increase operational efficiency.

Presentations are given in a seminar-style format, interspersed with small group breakouts that permit participants to better explore any issue or topic stimulated by the presentation, and maximize opportunities for participants to share ideas. This unique setting allows for intensive discussion and idea exchange among industry managers, and a sounding board for anyone implementing Lean and sustainability strategies. This function is also attended by our Master of Manufacturing Management degree candidates.

If you have any questions, please give us a call. We look forward to hearing from you and hope that you will be able to join us.

Warmest regards,

Director, CMTOC  
Associate Dean for Research  
Klein Professor of Management  
489 Business Building  
University Park, PA 16802  
814-863-2382, gis1@psu.edu

## FORUM LOCATION

### The Penn Stater Conference Center Hotel

215 Innovation Boulevard  
State College, PA 16803  
Phone: 800-233-7505 or 814-865-8500  
Web: [www.pshs.psu.edu/pennstater/pshome.asp](http://www.pshs.psu.edu/pennstater/pshome.asp)

## ATTIRE

**Thursday's Reception/Dinner:** formal business attire  
**Friday's Forum:** business casual (*company shirts encouraged!*)

## HOTEL INFORMATION

A block of rooms has been reserved for AMF attendees at The Penn Stater Conference Center Hotel (\$115.00, single occupancy). **Please use our reservation ID number, ADVJ09A**, when making your reservation. Our block of rooms will be released on September 28, 2009.

**Other nearby hotels (all within 1-2 miles of the Penn Stater):**

**Hilton Garden Inn**  
1221 East College Avenue, State College, PA  
Phone: 814-272-1221

**Holiday Inn Express**  
1925 Waddle Road, Williamsburg Square, State College, PA  
Phone: 814-867-1800

**Toftrees Golf Resort & Conference Center**  
One Country Club Lane  
State College, PA 16803

Phone: 1-800-252-3551

## QUESTIONS?

Carmen Strand  
Research Assistant, CMTOC  
489 Business Building, Penn State University  
University Park, PA 16802  
[cms57@smeal.psu.edu](mailto:cms57@smeal.psu.edu)  
814-865-6727

The Advanced Manufacturing Forum (AMF) is a not-for-profit event supported by a combination of registration fees, contributions from the Quality and Manufacturing Management (QMM) program and the Center for the Management of Technological and Organizational Change (CMTOC). Persons with disabilities are encouraged to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact Carmen Strand at 814-865-6727 in advance of your participation or visit. This publication is available in alternative media on request. Penn State is committed to affirmative action, equal opportunity, and the diversity of its workforce. U.Ed.BUS 04-49

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Register today!  
Register today!

Gerald I. Susman, Director  
Center for the Management of Technological  
and Organizational Change  
Smeal College of Business  
The Pennsylvania State University  
489 Business Building  
University Park, PA 16802

Please update contact information by sending  
an email to: [cmtoc@smeal.psu.edu](mailto:cmtoc@smeal.psu.edu)

Advanced Manufacturing Forum  
Details Inside

# 66th Advanced Manufacturing Forum

## The Journey to Lean

October 29-30, 2009  
University Park, Pennsylvania

Presentations by:  
Herman Miller  
United Technologies  
Greatbatch Medical  
Pittsburgh Glass Works (PGW)

PENNSSTATE  
SMEAL College of Business

## FORUM FORMAT AND SESSION DESCRIPTIONS

ALL EVENTS TAKE PLACE AT THE PENN STATER

THURSDAY, OCTOBER 29, 2009

RECEPTION	6:00 - 6:45 PM
ORIENTATION	6:45 - 7:30 PM
DINNER	7:30 - 8:30 PM

FRIDAY, OCTOBER 30, 2009

REGISTRATION & BREAKFAST BUFFET	7:00 - 8:00 AM
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<b>W. DREW SCHRAMM</b> <b>HERMAN MILLER, INC.</b>	8:00 - 9:15 AM
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BREAK	9:15 - 9:30 AM
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<b>KATHLEEN SANDIN</b> <b>UNITED TECHNOLOGIES</b>	9:30 - 10:45 AM
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BREAKOUTS	10:45 - 11:45 AM
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LUNCH	11:45 AM - 1:00 PM
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<b>SUSAN H. CAMPBELL</b> <b>BILL WILLICK</b> <b>GREATBATCH MEDICAL</b>	1:00 - 2:15 PM
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BREAK	2:15 - 2:30 PM
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<b>RUSSELL LAWRENCE</b> <b>MIKE PERRY</b> <b>PITTSBURGH GLASS WORKS</b>	2:30 - 3:45 PM
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BREAKOUTS	3:45 - 4:45 PM
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WRAP-UP	4:45 - 5:00 PM
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## The Journey to Lean

### *Greening the Supply Chain; Thinking Outside the Hive*

**W. Drew Schramm, Senior Vice President  
Global Supply & Logistics  
Herman Miller, Inc., Zeeland, MI**

When it comes to improving an organization's impact on the environment, going it alone would not only be costly, but almost impossible. The key to a successful environmental program is engaging the entire supply chain. At Herman Miller, we have been on our journey for many years. We've learned a great deal on what works and, of course, what doesn't work. In our session, we will discuss the journey and what steps Herman Miller has taken to engage our supply chain to achieve our sustainability goals. We will give an overview of our sustainability programs as well as specific examples of how we integrate our sustainability goals into our supply management team's and supplier's goals. Herman Miller's DfE (Design for Environment) goals require us to have 100% of our products certified as environmentally responsible by 2020. This can only be achieved with close cooperation with our supply chain partners.

### *Greening the Value Stream*

**Kathleen Sandin, Global Environment Manager  
Pratt & Whitney/United Technologies, Hartford, CT**

Pratt & Whitney, a United Technologies Corporation (UTC) company, is a world leader in the design, manufacture and service of aircraft engines, industrial gas turbines, and space propulsion systems. Pratt & Whitney has annual revenues of \$12.97 billion with 38,577 employees supporting more than 9,000 customers in 180 countries around the world. UTC's green journey started in the mid-90's with a primary focus on its factories and product content, but has since expanded to product impact and the supply chain. The presentation will cover the history, scope and future of the green program across UTC and Pratt & Whitney, and will include lessons learned based on experiences within a variety of global economic realities.

### *TPS Meets Medical Manufacturing*

**Susan H. Campbell  
Senior Vice President of Orthopaedics  
Bill Willick, Director of Lean Manufacturing  
Greatbatch Medical, Clarence, NY**

Wilson Greatbatch, co-inventor of the first successful implanted pacemaker, founded Greatbatch, Inc. in 1970 to develop long-lived primary batteries to fuel pacemakers. Until 2000, the company remained a small family owned business. Since then, the company has coupled its Leading Technology Expertise with Operational Excellence to grow to a \$0.5 Billion business. Recently, its flagship facility in Alden, New York was awarded Industry Week's Best Plants Award. Susan H. Campbell and Bill Willick will share the story about how Greatbatch combined the Fundamental Lean Concepts learned from the Toyota Production System with a passion for excellence to help transform Greatbatch Medical into a leading supplier to the major medical OEMs. This story will be infused with real lessons-learned, identification of pitfalls, and the importance of maintaining a sense of humor throughout the lean journey.

### *Implementing Standard Work in a Complex & Fast-Changing Manufacturing Environment*

**Russell Lawrence, Director of Human Resources  
Mike Perry, Production Superintendent  
Pittsburgh Glass Works (PGW), Tipton, PA**

PGW, formerly PPG Industries' Automotive Glass Business, has been a leader in the automotive OEM and aftermarket glass business for many years. As a result of fundamental change in the automotive industry, PGW has been faced with numerous challenges including the need to significantly reduce labor costs while increasing operational efficiency. At the Tipton glass fabrication facility, a strategy of hiring less costly agency employees coupled with the implementation of Toyota-type standard work has allowed the location to meet this challenge. The presentation will focus on the factory floor challenges of standard work implementation including the numerous tools, processes, and roles and responsibilities that comprise the system and will also illustrate how standard work promotes a sustainable lean / continuous improvement culture.

AMF Registration Form  
The Journey to Lean  
October 29-30 2009

Prefix/Name: \_\_\_\_\_

Title: \_\_\_\_\_

Firm: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Fax: \_\_\_\_\_

Email: \_\_\_\_\_

- I will be attending Thursday evening's dinner.
- I prefer a vegetarian meal for Thursday's dinner.

**Included in your registration fee is your choice of ONE of the following books:**

- Green Manufacturing: Case Studies in Leadership and Improvement* by AME
- Green to Gold: How Smart Companies Use Environmental Strategy...* by D. Esty, A.S. Winston
- Creating a Lean Culture: Tools to Sustain Lean Conversions* by David Mann
- Lean Six Sigma for Supply Chain Management* by James William Martin

**Registration fee is \$495.00 per person\*:**

- LEAN method: Mastercard, Visa or AmEx!  
*Receipt emailed if email address is provided.  
You may also call in your number (see below).*

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- Mail form and check or money order payable to Penn State University
- Fax form to 814-865-7064, attn. C Strand, with check to follow

**Send registration form and check or money order to:**  
**Carmen Strand**                      **Email: cms57@smeal.psu.edu**  
**489 Business Building**           **Phone: 814-865-6727**  
**Penn State University**           **Fax: 814-865-7064**  
**University Park, PA 16802**

**Cancellations**

Up to and including October 21, 2009 - full refund.

After October 21 - refund will be \$395

\* **Group Rate:** \$50 discount per person for two or more attendees from the same company.