

# PROFITING FROM LEAN PRODUCT DEVELOPMENT: Toyota Methods and Beyond

**EARLY BIRD  
DISCOUNT –**  
Reserve before July 18  
and save \$300  
(see page 10 for details)

October 14 – 15, 2008  
Chicago, Illinois

*A two-day conference on key strategies and approaches to effectively apply lean thinking to product development and substantially improve top-line growth*

## KEYNOTE PRESENTATIONS:



**James Luckman**  
Partner, Lean Transformations  
Group, LLC



**Dr. James Morgan**  
Director, Body Exteriors &  
Stamping Business Unit  
Engineering, Ford Motor Company,  
Co-author of The Toyota Product  
Development System



**Don Reinertsen**  
President, Reinertsen &  
Associates and Author of  
Managing the Design Factory

## LEARN:

- About the principles and underpinnings of the Toyota Product Development System
- How to apply lean concepts for rapid learning, knowledge capture and effective people engagement
- Unconventional techniques to achieve lean transformations
- Which lean methods can have the most impact and how they work

**CASE PRESENTATIONS AND  
PRACTITIONER INSIGHTS FROM  
LEADING COMPANIES INCLUDING  
PFIZER, GE HEALTHCARE, BOEING,  
ABBOTT DIAGNOSTICS, STEELCASE,  
CATERPILLAR, ALTEC INDUSTRIES,  
MICROSOFT, RAPID REFILL and more**

# PROFITING FROM LEAN PRODUCT DEVELOPMENT: Toyota Methods and Beyond

## Conference Background

**W**ith the broad-based success of lean manufacturing across multiple industries over the past decade, the pressure has steadily increased for companies to take lean concepts further upstream in the product development process. Applying lean principles to the creative and non-linear environment of product development has proven to be a formidable challenge. Adding to that challenge is the fact that there is no universally prescribed method for applying lean concepts to product development. Clearly, The Toyota Product Development System is well known and highly praised, but is often emulated with limited success. Other methods take a more economically-based approach to applying lean concepts that have the most potential for payback and still others focus primarily on waste reduction. Which lean methods and approaches will have the most impact, which are right for your company to pursue and how can you get started on the right path?

To address these critical issues, Management Roundtable is pleased to announce its fall conference, **Profiting from Lean Product Development: Toyota Methods & Beyond**, to be held **October 14 – 15, 2008** in **Chicago, IL**. This two-day program will bring together the leading lean thought leaders and advanced practitioners to discuss key strategies and approaches to successfully implement lean principles into product development and the resultant impact on productivity, cycle time and profits.

By attending, you will come away with guidelines, how-to's and case examples to:

- Achieve breakthrough results versus incremental gains - 50% faster product development cycle times and 5-10x the productivity of your engineering department
- Implement lean thinking into company culture and company paradigms to gain buy-in from key stakeholders
- Create, capture, share, and reuse robust technical knowledge across design projects
- Adopt lean methods like batch size reduction, queue management, and cadence to significantly increase speed and quality while decreasing development costs

If you're in the midst of implementing lean concepts into product development and aren't pleased with the early results or if you're just getting started, this program offers a unique learning opportunity as well as a chance to interact with a select network of lean product development experts and practitioners.

**October 14 – 15, 2008  
Chicago, Illinois**

## Who Should Attend

Designed specifically for product development and R&D practitioners that are applying lean concepts to product development activities, this conference will focus on further advancing the implementation of lean methods in development efforts as well as provide participants with methods to better estimate the value of lean interventions.

Specific business roles that will find this conference of particular interest include: Managers, Directors and Vice Presidents of:

- Product Development
- Engineering
- Process Improvement
- Program Management
- R&D
- Quality
- Six Sigma

*“[The conference] provided an excellent overview of lean product development activities across a great breadth of companies and markets. Additionally, the conference allowed for significant value added breakout sessions to share and discuss lessons learned and best practices.”*

**Jason Dundas, Mechanical  
Engineering Manager, Isothermal  
Systems Research**

# AGENDA

## Tuesday, October 14, 2008

- 7:00am – 1:00pm** **Conference Registration**
- 7:00 – 8:00am** **Continental Breakfast** for pre-conference workshop participants
- 8:00am – Noon** **Pre-Conference Workshop: Product Development for the Lean Enterprise**  
**Mike Gnam**, Executive Director, Lean Product Development Initiative, National Center for Manufacturing Sciences (NCMS)
- Noon – 1:00pm** **Luncheon** for Workshop Participants
- 1:00 – 1:30pm** **Welcome, Management Roundtable & Conference Overview**  
**Gregg Tong**, Management Roundtable
- 1:30 – 2:45pm** **Keynote Address: Lean Concepts for Rapid Learning, Knowledge Capture and Effective People Engagement**  
**James Luckman**, Partner, Lean Transformations, LLC
- 2:45 – 3:45pm** **Case Study: Creating Lean Transformations in Unconventional Places in Unconventional Ways**  
**Dr. Terence M. Barnhart**, Director, Strategic Management & Head of Agile R&D, Pfizer Global R&D
- 3:45 – 4:00pm** **Refreshment Break**
- 4:00 – 5:00pm** **Case Study: Innovative Lean Development**  
**Tim Schipper**, Office Lean Consultant, Steelcase, Inc.
- 5:00 – 6:00pm** **Panel Session: Lessons Learned in Implementing Lean Product Development — How to Successfully Roll Out Lean Concepts**  
**Moderator: Eugene Kania**, Founder and Principal, MC2 Solutions  
**Panelists: Mike Gnam**, Exec. Director, Lean Product Development Initiative, NCMS; **Dantar Oosterwal**, former VP of Continuous Improvement, Sara Lee; **Paul C. Smith**, Engineering Manager, Lean Facilitation & Quality Systems, Caterpillar; and **Perry Rea**, Manager, New Airplane Product Development, Boeing
- 6:00pm** **Day One Concludes**
- 6:00 – 7:15pm** **Networking Reception**

## Wednesday, October 15, 2008

- 7:00 – 8:00am** **Continental Breakfast**
- 8:00 – 9:15am** **Keynote Address: Second Generation Lean Product Development**  
**Don Reinertsen**, President, Reinertsen & Associates and author of *Managing the Design Factory*
- 9:15 – 10:15am** **Case Study: Implementing Diverse Lean Methods within Multiple Hardware Groups at Microsoft**  
**Andrew Flint**, Principal Hardware Engineer, Microsoft
- 10:15 – 10:30am** **Refreshment Break**
- 
- TRACK A: DEPLOYING HIGH LEVERAGE LEAN TECHNIQUES**
- 10:30 – 11:30am** **Case Study: Using Cost-of-Delay and Lean Economics to Manage Engineering Project Priorities**  
**Judd Clark**, Principal Engineer, Altec Industries
- 11:30 – 12:30pm** **Case Study: Integrating Suppliers in Set-Based Design Efforts to Reduce Design Risk and Time to Market**  
**Merle Meyer**, VP, Product Development, Rapid Refill
- 
- TRACK B: LEAN PRODUCT DEVELOPMENT IN HEALTHCARE**
- 10:30 – 11:30am** **Case Study: Achieving Growth and Customer Centricity by Applying Toyota Lean Thinking to Product Development**  
**Reaz Rasul**, General Manager, Lean Product Development, GE Healthcare
- 11:30 – 12:30pm** **Case Study: Reducing Design Verification Lead Time through Lean Six Sigma**  
**Theresa Garwood**, R&D Project Manager, Lean Six Sigma Black Belt Abbott Diagnostics
- 12:30 – 1:30pm** **Luncheon**
- 1:30 – 2:45pm** **Keynote Address: A Systems Approach to High Performance Product Development in the Auto Industry**  
**Dr. James Morgan**, Director, Body Exterior & SBU Engineering, Ford Motor Company
- 2:45 – 3:30pm** **Application and Implementation Session**  
**Facilitator: Don Reinertsen**, Reinertsen & Associates
- 3:30 – 3:45pm** **Conference Wrap-up, Management Roundtable**

# Keynote Presentations

Tuesday, October 14, 2008 • 1:30 – 2:45pm

## Lean Concepts for Rapid Learning, Knowledge Capture and Effective People Engagement



**James Luckman**, Partner, Lean Transformations Group, LLC

Over the past few decades, many companies have applied lean tools and principles in their operations. Most of the focus has been on manufacturing but recently, there has been a movement to the offices and also to product development. Many of these lean efforts produced spotty results because the implementation approach was limited by introducing lean tools to the existing systems and culture of the organization. It is clear that making the transformation to a “Toyota-like thinking” company requires a very different approach.

Product development is about creating and capturing knowledge for reuse. The core principles of lean involve engaging the entire organization in solving problems around the products and the processes so that the company can maintain and continuously grow its knowledge. An effective transformation approach in product development requires key middle managers and engineers to participate in rapid problem solving around their core development processes. When lean concepts for rapid learning, knowledge capture and effective people engagement are applied, a new approach and focus for the entire company can be achieved. Over time and through consistency of this approach, many of the existing beliefs, mental models, systems and behaviors change in favor of the new knowledge-based paradigm.

### Key Take-aways:

- Understanding of what has caused us to operate in our existing paradigm and what is wrong with it
- Learn what the new paradigm is and why it performs at a higher level
- Understand why product development is an ideal place to begin the process of operating the new paradigm
- Be informed of an approach that has demonstrated the ability to create this shift in thinking

*Jim Luckman is a partner of Lean Transformation Group, a company with experienced practitioners of Lean and corporate coaches, focused on helping companies manage a transformation to Lean. Recently, Jim was the President and CEO of iPower Technologies; in this position, he successfully applied lean across all functions in the organization. Jim has worked in the auto industry for 34 years employed at Delphi Automotive.*

Wednesday, October 15, 2008 • 8:00 – 9:15am

## Second Generation Lean Product Development



**Don Reinertsen**, President, Reinertsen & Associates and Author of “Managing the Design Factory”

Many early attempts to apply the principles of Lean Manufacturing in product development have already fallen short. Organizations often lose precious time doing value stream maps, waste walks, and lean simulations in return for modest improvements. Meanwhile, companies using more focused approaches are getting 5 to 10x improvements in key development activities. Lean looks very different in product development, and these differences are the key to capturing its benefits. In this presentation, Don Reinertsen will discuss how practical methods like batch size reduction, queue management, and cadence can make a difference. Such methods are key to achieving large simultaneous improvements in speed, quality, and development cost.

- Where did early attempts to use Lean in product development go awry?
- Why are queues the underlying key to quality, efficiency, and speed?
- How can we reduce the cost of variability without stifling innovation?
- Which lean methods make a difference, and how do they work?

*Don Reinertsen is President of Reinertsen & Associates, specializing in the management of the product development process. Before forming his own firm, he consulted at McKinsey & Co. and was SVP of Operations at Zimmerman Holdings. In 1983, while a consultant at McKinsey & Co., he wrote a landmark article in Electronic Business magazine that first quantified the value of development speed. This article has been cited in the frequently quoted McKinsey study that indicated “6 months delay can be worth 33 percent of lifecycle profits.” He coined the term “Fuzzy Front End” in 1983 and began applying world class manufacturing techniques in product development in 1985.*

**“The working sessions were thought-provoking and a great opportunity to brainstorm and compare with colleagues from various industries. Donald Reinertsen’s own thoughts and discussions topped off a great use of my time.”**

**Todd Owens**, Manager Product Assurance Engineering, Plantronics

Wednesday, October 15, 2008 • 1:30 – 2:45pm

## A Systems Approach to High Performance Product Development in the Auto Industry



**Dr. James Morgan**, Director, Body Exterior and SBU Engineering, Ford Motor Company, Co-author of *The Toyota Product Development System: Integrating People, Process and Technology*

Today's vehicles are arguably the most complex, technologically advanced consumer products on the planet. They are comprised of hundreds of thousands of individual parts and thousands of interdependent, yet technologically diverse subsystems that must work together seamlessly in order to protect, transport, and entertain us. The creation of these vehicles depends upon the development of enormous, state of the art, high precision manufacturing systems as well as the orchestration of an intricate network of suppliers. Consequently, a successful automotive product development system requires the synchronized efforts of an army of multi-disciplined engineers, scientists, technicians and an array of business professionals located across the globe.

Further, all this must be accomplished within a hyper-competitive environment in which vehicle development times have shortened radically, investment and variable costs have been continually squeezed, quality expectations have risen dramatically, and vehicle market segments have become much smaller, and far more diverse. It is an intense business, where hundreds of millions of dollars are at stake in a single development project.

Competing in this business requires serious commitment and a comprehensive, systems approach to product development that includes talented, highly skilled people, effective processes, and fully integrated state of the art technologies. High performance product development in the auto industry depends upon a framework of guiding principles that leverage these three crucial system elements. Dr. Morgan will discuss these key principles and how people, processes and technologies can work together to create a profound competitive advantage in product development performance.

*Dr. James Morgan is Director, Body Exteriors and Stamping Business Unit - Engineering, Ford Motor Company. Jim is responsible for Body Exterior Engineering Globally, and Stamping Engineering, Facilities and Die Development for Ford North American Operations. Before joining Ford, Jim was VP of Troy Design & Manufacturing. While at the University of Michigan, Jim conducted a three year, Shingo Award Winning study of the Toyota Product Development System. This research is the basis of the book, "The Toyota Product Development System: Integrating People, Process and Technology", which he co-authored; this book has been awarded a Shingo Prize and is published in six languages.*

Tuesday, October 14, 2008 • 8:00am – Noon

## Product Development for the Lean Enterprise



**Mike Gnam**, Executive Director, Lean Product Development Initiative (LPDI), for the National Center of Manufacturing Sciences (NCMS)

Although less publicized and harder to comprehend than the Toyota Production System, the Toyota Product Development System is also unique and arguably more important for the ongoing success of the company. Increasingly, companies are applying the same lean principles of production into product development in a continuing attempt to mimic Toyota's success. While this will achieve incremental gains, it will not capture the essence of Toyota's excellence, nor achieve the breakthrough improvements which are possible. This can only be done by understanding why they do what they do and integrating that thinking into the company culture and company paradigms. This workshop is based on the findings of a two year National Center for Manufacturing Sciences (NCMS) study on the world's best practices in new product development.

### Workshop participants will learn:

- The principles and cornerstones of the Toyota Product Development System
- How to achieve 50% faster product development cycle times (and the associated lower development costs) and 4x the productivity of your engineering department
- How to minimize or eliminate design loop-backs
- How to achieve smooth product launches (and hit the target deadlines)
- How to create, capture, share, and reuse robust technical knowledge across design projects
- Why merely copying the Toyota processes seldom achieves the desired results and what to do about that
- How other companies are making this change, what works, what does not work, and how they score on relevant metrics

*Michael C. Gnam, Executive Director, Lean Product Development Initiative (LPDI), for the National Center of Manufacturing Sciences (NCMS), is currently responsible for managing all LPDI activities. This encompasses new and continuing research in this topic and providing presentations, seminars, workshops, and consulting in the area of Lean Product Development based on the Toyota principles. Mr. Gnam has over 27 years of experience in new product and process development and 15 years at NCMS performing studies of the world's best practices in numerous business and management areas.*

## Creating Lean Transformations in Unconventional Places in Unconventional Ways



**Dr. Terence M. Barnhart**, Director, Strategic Management & Head of Agile R&D, Pfizer Global R&D

Often, we think of Lean transformations occurring through a top-down “push” of tools and training into our organizations. In initiating its Lean transformation, Pfizer Global R&D (PGRD) reviewed its history, and selected an alternative approach, relying instead on two principles of Lean thinking: “Pull” and fast learning. A study of PGRD history showed that lasting cultural changes often occurred when colleagues “pulled” good ideas into the enterprise from the outside. Often such cases occurred completely without leadership involvement, but these new ideas remained deeply embedded in the culture for years. With this in mind, an approach was developed to initiate Lean into the organization by letting “pull” for good ideas pave the way.

Unfortunately, left to itself, a pull approach can be slow, and uneven. To speed and broaden its impact, Pfizer added a fast-learning engine to the pull process. This engine seeks open opportunities and key opinion leaders who might be interested in Lean change, and lets them trigger the pull into new areas. This strategy has proven highly successful, and has broad implications for others who want to achieve a Lean culture change without heavy-handed implementation programs.

### Key Take-aways:

- Unconventional approaches to inserting Lean thinking into their culture
- The theory behind fast-learning, and how it can be applied:
  - As a key lever for culture change
  - In improving basic research and development
- Examples of successful use of fast-learning theory and “pull” types of culture change methods

---

*“Excellent opportunity to network with peers and collectively learn about lean implementations which have been successful.”*

**Santanu Roymoulik, PTC**

---

*“Invaluable opportunity to tap expertise and offer lessons learned among an experienced community of lean practitioners.”*

**Jeff Meunier, Program Manager**  
**Shure, Inc.**

---

## Innovative Lean Development



**Tim Schipper**, Office Lean Consultant, Steelcase

Steelcase began applying lean principles to its manufacturing facilities in 1996 with excellent results, including a dramatic reduction in its manufacturing footprint and an increase in inventory turns. These positive results led the company to apply lean principles to office processes yielding additional gains in efficiency and a reduction in total cycle time; however, the wastes uncovered were often caused further upstream in the product development process. Thus the logical next step was for Steelcase to apply lean principles to its development process. Lean methods are now used in both the IT application development and in product development areas.

The lean approach for development involves using quick, iterative learning cycles in which the whole team works to complete the objectives of each cycle. Each learning cycle contains the elements of building and testing. The approach generates improved quality and speed through the use of visual controls and frequent management integration points. By incorporating these techniques, Steelcase has reduced development time by over 50% on several key projects. In this presentation, Mr. Schipper will describe several key lean concepts used in this technique including how to:

- Create flow in development by applying lean value stream-mapping to projects and using improvement kaizens on supporting processes
- Split the development into quick iterative learning cycles to manage time and costs, and separate execution from the learning phase of the projects
- Scope out each learning cycle with clear objectives, goals, and trade-offs which are later captured
- Generate and carry forward multiple concepts, optimizing product value and reducing design wastes
- Use systematic innovation to create innovative solutions to maximize value and reduce waste

## Implementing Diverse Lean Methods within Multiple Hardware Groups at Microsoft



**Andrew Flint**, *Principal Hardware Engineer, Microsoft*

Microsoft designs a range of hardware products in several distinct development organizations. With development groups that have been in existence from 25 years to under 5 years, the approach to implementing lean has taken different

paths in each. The mature organization is more aligned with the structure of the Toyota LPD method and is implementing value stream mapping to identify waste. In contrast, the less mature group has taken on a basic principles approach to LPD and is focused on using small-batch development & test cycles to reduce queues and improve feedback.

In this case presentation, Andrew Flint will outline the common themes that have emerged, the value of flexible resources, and the impact of lean on the current stage-gate model as well as initial results and lessons learned.

### Key Take-aways:

- Understanding the value and impact of flexible resources
- Recognize that overlapping development phases exist and modify your stage-gate phases to reflect this
- Value-stream mapping is a critical tool to help identify and eliminate waste
- The addition of small batch development and test cycles can significantly reduce queues and improve feedback

## Using Cost-of-Delay and Lean Economics to Manage Engineering Project Priorities



**Judd Clark**, *Principal Engineer, Altec Industries*

Despite the addition of a stage-gate approach at projects with pseudo-dedicated project teams, projects often finish late, over-budget, and far from the initial scope. The lack of visibility of current work vs. planned work vs. incoming

demand, combined with other urgent customer requests (internal and external) left many feeling a lack of support and effectiveness from the engineering department.

To address the workload/backlog problem, we implemented a kanban system in our engineering department to make the project queue much more visible. The next challenge was to prioritize this queue, we are putting in place a process/guideline for screening incoming requests (rather than documenting everything just to let it sit in a backlog for an indefinite period of time) and recording very basic cost/profit information on each request regardless of the size of the request. This change in our backlog management will allow us to 1) respond to some customer requests with an immediate accept/deny into the backlog (rather than accept everything), and 2) make those decisions based on economics rather than emotion.

### Key Take-aways:

- Functional examples showing multiple applications of a visual management system for the office
- Application of quick Cost-of-Delay calculations/estimates to task-level requests on Product Engineering used to
  - screen requests with data rather than emotion
  - work on the next best opportunity based on dollars
  - merge product development project tasks with other tasks using the same resources
  - provide a valuable metric for determining appropriate staffing

## Reducing Design Verification Lead Time through Lean Six Sigma



**Theresa Garwood**, *R&D Project Manager, Lean Six Sigma Black Belt, Abbott Diagnostics*

This presentation will illustrate the ability of Lean Six Sigma methods to help achieve significant improvements to product development lead times. This case study will focus on the simple methods and process used to reduce design verification lead times by over 30% while improving the quality and cost associated with this essential phase of product development at Abbott.

Key elements of this presentation will include a discussion of the methods and tools used to:

- Clearly define the objectives and scope of the improvement
- Measure the current state of the Design Verification process
- Identify the key root causes of waste in the process
- Select key solutions that would achieve the necessary improvement and implement methods to sustain the improvements
- Reduce lead time by 60% and process steps by 30 - 40%
- Increase process cycle efficiencies from 11% to 52%

## Achieving Growth and Customer Centricity by Applying Toyota's Lean Thinking to Product Development



**Reaz Rasul**, General Manager, Lean Product Development, GE Healthcare

In 2007, GE Healthcare's Diagnostic Imaging business began a revolutionary transformation towards becoming a lean product development organization. Specifically, they benchmarked Toyota principles to optimize their product development methodologies to streamline businesses to achieve growth and customer centricity. In this presentation, Reaz will discuss the journey and techniques that this \$8B business embarked upon to realize product development excellence.

### Key Take-aways:

- Understand your customers and their specific needs
- Align for single wing-to-wing ownership
- Segmentation of business to align with market
- Outboard innovation from your NPI process

## Integrating Suppliers in Set-Based Design Efforts to Reduce Design Risk and Time to Market



**Merle M. Meyer**, Vice President, Product Development, Rapid Refill

In today's fast paced race to develop new products, many companies continue to rely solely on their limited internal development resources to stay ahead of the market. All too often, companies overlook one of their best allies in the race to reduce time to market: their suppliers. Suppliers provide a wealth of design, process and material knowledge to a design team that can reduce product design time and risk, and offer a broader market view of products under development.

Mr. Meyer will outline the key steps involved in successfully engaging multiple suppliers in a "Set-Based" development process at Rapid Refill. He will explain how this process allows the best product designs to evolve and rise to the top in a real time race to introduce new products on-time, while reducing the project risk by having multiple solutions in development right up to the date of decision. By attending this presentation, you will come away with:

- Effective strategies to engage suppliers in your development process to reduce time to market and project risk
- Knowledge of how to simultaneously develop multiple products that will meet key market requirements

## Lean Product Development Implementation Panel Session

**Tuesday, October 14, 2008 • 5:00 – 6:00pm**

If you're currently implementing lean methods into your development process and have come up against some unanticipated barriers or you're just in the initial stages of considering how to implement lean into your product development process, then come prepared



to ask our panelists about their experiences and possible solutions to common lean implementation pitfalls.

### Panel Moderator:

**Eugene Kania**, Founder & Principal, MC2 Solutions

### Panelists:

**Mike Gnam**, Executive Director, Lean Product Development Initiative, NCMS



**Dantar Oosterwal**, former VP of Continuous Improvement, Sara Lee



**Paul C. Smith**, Engineering Manager, Lean Facilitation & Quality Systems, Caterpillar

**Perry Rea**, Manager, New Airplane Product Development, Boeing Commercial Airplanes



## Networking Reception & Topic Table Discussion on Lean Methods

**Tuesday, October 14, 2008 • 6:00 – 7:30pm**

While enjoying our wine and cheese reception join our conference faculty, lean experts and your peers for some informal table discussions on lean topics including: **Knowledge Based Product Development, Creating Flow, Value-Stream Mapping for Product Development, Set-based Engineering, Pull Systems and Fast Learning Theory, Implementing Lean PD in Regulated Industries, Queuing Theory** and more. During the reception, you'll find designated topic tables with one or more of our faculty members serving as discussion leaders. This is an excellent chance to connect with attendees struggling with similar issues as well as an opportunity to create a network for ongoing discussions after the conference.

# 12 Key Benefits

By attending this conference, you will learn:

- 1 How to successfully integrate Toyota lean thinking into your company culture and company paradigms
- 2 About **Abbott Diagnostics'** use of simple methods and processes to reduce design verification lead times by over 30% while improving quality and cost
- 3 The essential steps to achieving lean transformation within and across your company — how to apply lean concepts for rapid learning, knowledge capture and effective people engagement
- 4 How **Steelcase** creates flow in development by applying lean value stream-mapping to projects and by using improvement kaizens on supporting processes
- 5 How **GE Healthcare** adopted Toyota principles to optimize their product development methodologies, streamline businesses and achieve new levels of growth and customer centricity
- 6 Proven strategies and methods to create, capture, share, and reuse robust technical knowledge across design projects
- 7 How to simultaneously achieve significant improvements in speed, quality, and development cost by implementing practical lean methods like batch size reduction, queue management, and cadence
- 8 The potential impact and value of quick iterative learning cycles in development to manage time and costs, and separate execution from the learning phase of projects
- 9 How small batch development and test cycles can significantly reduce queues and improve feedback
- 10 About **Ford Motor Company's** framework of guiding principles to create a high performance product development system within the automotive industry
- 11 How to drive lasting cultural changes through the deployment of fast-learning theory and “pull”
- 12 **Altec Industries'** approach to using cost-of-delay and lean economics to more effectively manage its engineering project priorities

## Special Report on Lean Product Development Practices



*A comprehensive report on industry progress and implementation efforts of leading practitioners. This 180 page report*

*features exclusive insights and implementation advice, including:*

- Implementation examples from the leaders in lean product development, along with “how-to’s” and measurable results
- Views from renowned experts such as **Don Reinertsen, Mike Kennedy, Ron Mascitelli, Tom Devane** (and others) on the state-of-the-art and future directions
- Proven models and practices including batch size reduction, queue management techniques, parallel processes, the removal of non-value-added activities, and flow management
- Case examples from **Boston Scientific, Steelcase, DICKEY-john, Hewlett-Packard, Isothermal Systems Research, Cessna Aircraft, Honeywell Aerospace, Lockheed Martin Astronautics**, and more
- Slides and presentation materials which can be used for internal reports and meetings
- Recommended further resources, including contact information

*Available in CD format, the report includes text, graphics, appendix and supporting presentation and can be purchased for \$395. See page 11 for option to purchase*

---

*“The ability to interact with leaders in the field gave me a wealth of new ideas, as well as challenged my current understanding of lean.”*

**Guy Beaver,**  
Director of Software Engineering,  
Critical Point Group

# Special Features

**Special Half-Day Pre-Conference Workshop – Product Development for the Lean Enterprise:** Limited to just 40 participants, this session will review the principles and cornerstones of the Toyota Product Development System and provide you with an action plan for integrating Toyota lean thinking into your company culture and company paradigms.

**Dynamic Keynote Sessions** provide the latest expert and practitioner thinking on what it takes to successfully lead an effective lean transformation in product development.

**Interactive Panel Session:** Focused on overcoming barriers to lean implementation, this panel session offers candid insights and case examples of lean product development successes as well as lessons learned — an excellent opportunity to get your individual questions answered.

**Facilitated Implementation Application Session, Wednesday, October 15, 2:45 – 3:30pm:** Go home with a summary of key conference learnings and an action plan for moving forward by joining Don Reinertsen in an interactive discussion to map your path for lean product development implementation success.

**Virtual Lean Product Development Roundtable:** Before, during and after the conference, you can network with your peers currently implementing lean principles into product development by joining Management Roundtable's Virtual Lean Roundtable. To sign up and learn more about it, please visit [www.mrtplus.com](http://www.mrtplus.com).

**Networking Reception and Informal Facilitated Lean Topic Discussions:** While enjoying our wine and cheese reception join our conference faculty, lean experts and your peers for some informal table discussions on topics including: **Knowledge Based Product Development, Creating Flow, Value-Stream Mapping for Product Development, Set-based Engineering, Pull Systems and Fast Learning Theory, Queuing Theory** and more.

**Conference Reference Materials:** Complete binder with case examples, handouts, and data to serve as permanent reference. Special follow-up package sent electronically to all participants with conference summary, downloadable files, and extra notes.

**Team Benefits:** Sign up with 2 of your colleagues (teams of 3 or more) and save \$100 each. The bigger the team, the more the savings — and more support for implementation efforts! Groups of 5 – 10 may deduct 15%, groups of 11+ may deduct 20%. Teams may include customers and/or partners, as long as all members register at the same time.

**Early Bird Savings:** Sign up by **July 18th** and **save \$300!**

## About Management Roundtable



**The Management Roundtable (MRT)** is the foremost knowledge and networking resource for industry practitioners involved

in product, service, technology, and business development. Practitioner-oriented and unbiased, MRT's focus is on strategies and processes that enable speed, innovation, profitability, and overall competitive advantage. Through its highly regarded conferences and publications, MRT has helped companies achieve their objectives since 1980. Its newest membership offering, the Management Roundtable FastTrack, (<http://fasttrack.roundtable.com>) offers direct, year-round access to leading-practice insights via teleconference and online reports.

## Join the Lean PD Debate!

Is value stream mapping a waste of time for NPD? Is set-based design worth the trouble? What manufacturing analogies make sense in engineering and which have no place at all?

Hear what your peers and experts think about these and more lean product development issues, and then chime in with your own opinion.

These and more discussions are taking place right now at the MRT Virtual Roundtable on Lean Product Development. Sign up at [www.mrtplus.com](http://www.mrtplus.com) and start networking today! A perfect way to jumpstart your participation at this year's conference.

***“The seminar was extremely well run, and the hosts very gracious. The knowledge sharing which resulted from the breakout sessions generated ideas for improvement which could be taken back to my office and easily applied to my organization.”***

**Jeff Coult, Engineering Manager,  
Honeywell**

## Partial list of past participants at Management Roundtable Lean Product Development events:

3M Company • Abbott Labs • Advanced Medical Optics • Alcoa • Altec Industries, Inc • American Power Conversion • BAE Systems • Bio-Rad Laboratories • BioLab Inc • Black & Decker • Boeing Commercial Aircraft • Boston Scientific Corporation • Callaway Golf • CareerBuilder • Caterpillar Inc. • Centocor • Cessna Aircraft Company • Chamberlain • Chevron • Cisco Systems • Cook Biotech Inc. • Corbis • CyberOptics Corporation • DaimlerChrysler AG • Diebold, Inc • Eastman Chemical Company • Eastman Kodak Company • Eli Lilly and Company • Emerson • Ethicon Endo-Surgery • Evenflo • Fellowes • General Mills • General Motors Powertrain • Gerber Scientific Inc. • Goodrich Corporation • Goodyear Tire and Rubber Co • HP • Halliburton • Hallmark Cards • Harley Davidson • Hawker Beechcraft • Herman Miller • Hewlett-Packard Company • Honeywell International Inc • IBM • ITT • ITT Aerospace Controls • Ingersoll Rand • Inogen Inc • John Deere • Johns Manville • Johnson & Johnson • Kimberly-Clark Corp. • Kohler Co • LG Electronics Inc • LSI Logic • La-Z-Boy Inc • Liberty Hardware • Life Fitness • Lincoln Food Service Products • Lockheed Martin • Marvin Windows & Doors • Mattel Corp • Maytag • Medtronic Inc • Merck & Company Inc • Microsoft Corporation • Moen Incorporated • Molex, Inc. • Northrop Grumman NSD • NovAtel Inc. • Novozymes Biologicals • Nutrilite • Procter & Gamble • Parker Aerospace • Parker Hannifin • Pfizer Inc • Pitney Bowes • Pratt & Whitney • Praxair Inc • Precor • Qualcomm Inc • Raytheon • Rheem Manufacturing • Robert Bosch Tool Corporation • Rolls-Royce Gear Systems • Rubbermaid • Sabre Airline Solutions • Sandia National Labs • Sauder Woodworking Co • Schlumberger • Seagate Technology • Shure Inc. • Sodexo USA • St. Jude Medical • Steelcase • Steuben Glass - Corning Inc. • Stratos International • Stryker Medical • SunPower Corp • Tektronix • Teledyne Isco • Teradyne Inc • Textron Inc • The Chamberlain Group • The Clorox Company • The Timberland Co • The Toro Company • Thermo Electron Corporation • Timex Corporation • Trane • Transoma Medical • Trelleborg Sealing Solutions • Trimark Corporation • Trimble • Tyco Healthcare • UOP LLC • UOP/Honeywell • United Defense • United Technologies Corporation • Valeo Inc • Veridex, LLC • Viking Range Corporation • Visteon • Wabtec Corporation • Waukesha Engine • Whirlpool Corporation • Zebra Technology

**Bronze Sponsor:**



## Program Information

**Dates/Location:** October 14 – 15, 2008, Embassy Suites, Chicago O'Hare, 5500 N. River Road, Rosemont, IL 60018

**Hotel Accommodations:** A block of rooms has been reserved at a special rate at the Embassy Suites, Chicago O'Hare, 5500 North River Road, Rosemont, IL 60018. Call 847-678-4000 or 800-Embassy for reservations. Please mention the **Management Roundtable Lean Product Development Conference**.

**Schedule:** Registration for the conference and pre-conference workshop will take place from 7:00am – 1:00pm on Tuesday, October 14. A reception follows the sessions at 6:00pm. The program resumes on Wednesday, October 15th at 8:00am and the meeting will adjourn at 4:00 pm.

**Program Fee:** The registration fee for the conference alone is **\$1695**; with the addition of the pre-conference workshop the fee is **\$2190**. Fee includes program materials, luncheons, continental breakfasts, breaks and networking reception.

**Group Discounts:** Groups of 3 or more registering together may deduct \$100 per person.

**No Risk Guarantee:** Your satisfaction is 100% guaranteed — money back or credit. If you are not satisfied with the quality of this program, let us know in writing and we will refund your registration fee.

**Cancellations/Substitutions:** You may send a substitute attendee in your place at any time with no penalty (please inform us in advance, if possible). Cancellations made within 5 business days of the workshop are subject to a \$200 cancellation fee or the full fee can be credited towards a future purchase. No-shows are liable for the full fee.

**Conference Attire:** We recommend "business casual" attire. It is highly encouraged that you dress in layers when possible, since conference facilities are notorious for temperature fluctuations.

**Special Note:** If you have a disability that may affect your participation, please call us regarding your needs at least two weeks in advance of the workshop.

# PROFITING FROM LEAN PRODUCT DEVELOPMENT: Toyota Methods and Beyond

**EARLY BIRD  
DISCOUNT –**  
Reserve before July 18  
and save \$300

**October 14 – 15, 2008  
Chicago, Illinois**

**4** WAYS TO REGISTER:

**Call:** 1.800.338.2223 or 781.891.8080  
(weekdays, 9:00am-5:30pm EST)

**Fax:** 781.398.1889

**Web:** [www.ManagementRoundtable.com](http://www.ManagementRoundtable.com)

**Mail:** Lean Product Development  
c/o Management Roundtable  
92 Crescent Street  
Waltham, MA 02453

*“A great [conference] that  
showed that these techniques  
really can be applied and  
generate measurable results  
in the real world.”*

**Colin Macqueen**  
**Director, Technology**  
**Trelleborg Sealing Solutions**



**Please accept the following registration(s):**  
(please photocopy for additional people)

See more detailed program and pricing information on page 11. For more information on the Special Report on Lean Product Development, see page 9.

- CONFERENCE ONLY (\$1695)  
 CONFERENCE AND 1/2 DAY PRE-CONFERENCE WORKSHOP (\$2190)  
 SPECIAL REPORT ON LEAN PRODUCT DEVELOPMENT (\$395/copy)

Name Mr./Ms. \_\_\_\_\_

Business Title \_\_\_\_\_

Company \_\_\_\_\_

Division/Dept \_\_\_\_\_

Address \_\_\_\_\_

City/State/Zip \_\_\_\_\_ Country \_\_\_\_\_

Phone \_\_\_\_\_ Fax \_\_\_\_\_

Email \_\_\_\_\_

**Payment information**

Check for \$ \_\_\_\_\_ enclosed, payable in US funds to *Management Roundtable*

Please bill my  VISA  Mastercard  AMEX  Diner's Club

Card No. \_\_\_\_\_ Exp. Date \_\_\_\_\_

Name as it appears on card \_\_\_\_\_

Signature \_\_\_\_\_

Please bill my company. # \_\_\_\_\_

**Profiting from Lean Product Development:  
Toyota Methods and Beyond**

c/o **Management Roundtable**  
92 Crescent Street  
Waltham, MA 02453

PRSRT STD  
U.S. Postage  
**PAID**  
Tampa, FL  
Permit No. 3311