



Terence T. Burton, *President*

## Six Sigma for Small and Mid-Sized Organizations

**One of the more familiar dilemmas in business today is how to implement Six Sigma in smaller and mid-sized organizations.** This is a serious issue because larger customers are beginning to mandate Six Sigma to their supply base as a condition of doing future business. Smaller and mid-sized organizations go out and talk to the large Six Sigma consulting houses about a program only to find out that it requires millions of dollars in investment, dedication of full time resources, and training of the masses. Those of you who have experienced this dilemma will agree that this Six Sigma structure and approach is not only inappropriate, but it is totally unrealistic for smaller and mid-sized organizations.

CEO has developed a new Six Sigma business model that allows smaller and mid-sized organizations to implement at a pace where they can actually digest and achieve benefits, without the significant resource commitment and overhead structure of the traditional Six Sigma implementation approach.

### In this issue:

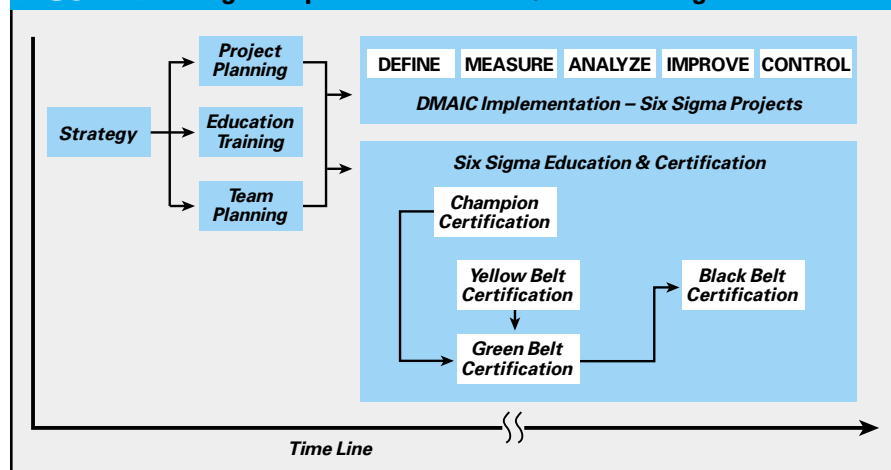
- **Six Sigma for Smaller and Mid-Sized Organizations**
- **Update on The Lean Extended Enterprise**
- **Services That Drive Results**

Breakthrough! is published by The Center for Excellence in Operations, Inc. (CEO), a leading operations management consulting firm specializing in Breakthrough Operations Improvement. The focus of our firm is practical "hands-on" implementation followed by tangible breakthroughs in business performance.

**New Hampshire:**  
15 Constitution Drive, Suite 128  
Bedford, New Hampshire  
Tel.: (603) 471-0300  
Fax: (603) 471-1897

© 2003. Contents may be reproduced for internal use with permission from CEO. For additional information visit our web site at [www.ceobreakthrough.com](http://www.ceobreakthrough.com).

**FIGURE 1: Six Sigma Implementation: Small/Mid-Sized Organizations**



Over the past few years, CEO has experimented with alternative approaches to Six Sigma for our smaller and mid-sized clients. We have modified our Six Sigma deployment and execution process to accommodate the realities of their environments and operating styles. As a result, these organizations actually achieve faster and more impressive benefits than their larger customers. Regardless of the supposed benefits, the traditional top-down Six Sigma implementation approach is a major barrier to

*continued on page 2*

## Six Sigma for Small... from page 1

entry for smaller and mid-sized organizations.

One of our observations about Six Sigma's implementation lifecycle is that the majority of benefits are not derived from Black Belts – They are generated at the Green Belt and Yellow Belt level, especially when the Six Sigma process becomes institutionalized. Another observation is that Black Belts and Green Belts are interchangeable for about 80% of the organization's Six Sigma opportunities. Accordingly, we have developed our "middle-out" implementation approach to Six Sigma. CEO serves as the Black Belt resources initially, and grows selected individuals into this role later in the implementation lifecycle. Some of our clients have referred to our approach as "Simple Six Sigma" or "Six Sigma Lite." We choose not to use these nicknames because it may give the impression that we are short-cutting the Six Sigma process and methodology. Fact is, these organizations become just as technically skilled as their larger company counterparts, and in fact, outperform their larger customers in terms of both financial results and cultural transformation.

## How It Works

Figure 1 provides an overview of the Six Sigma Deployment and Execution process for smaller and mid-sized organizations

- First, a Six Sigma strategy and project list is defined. The implementation approach and projects are directly aligned to the organization's strategic plan and customer requirements. This step also includes communication and awareness-building for Six Sigma (i.e., Why is this strategically important to our business? How will we implement? What are the consequences of doing nothing?).
- Second, the implementation plans are developed. This is a very detailed and structured process and includes defining objectives, scope, goals, work plans, deliverables, baseline performance, and expected performance/financial improvements for each project.
- Third, team formation and the education plan begin concurrently. The upfront groundwork provides focus for the teams, and prevents wasted time and resources debating over what needs to be done. In addition, the education is customized to the client's business and includes sample issues, data, and examples from their actual processes.
- Executives are put through two-day Champion education where they learn the Six Sigma process, methodology, and tools. Executives also focus on how to lead, structure, and mentor a successful Six Sigma effort.
- Some team members are put through five-day Green Belt certification (e.g., 25 individuals over a 2-3 month period). This education focuses on Six Sigma but it includes and integrates Kaizen, Lean, and Six Sigma (Because not all problems require a complex statistical approach).
- Other team members are put through two-day Yellow Belt certification (e.g., 25 individuals over a 2 week period). This education focuses on the structured problem solving methodology and basic tools of Six Sigma, as well as Kaizen and Lean.
- Later in the lifecycle, individuals are transitioned to the next level of Six Sigma achievement. Some Green Belts are developed into Black Belts, and some Yellow Belts are developed into Green Belts. Other new resources are developed into Green Belts and Yellow Belts respectively based on need. The goal is to ramp up at a pace where the savings are funding the Six Sigma program.
- In all cases, certification is by achievement, not attendance. Beyond the classroom time, candidates must complete a mandatory project that demonstrates the correct deployment of Six Sigma, solves a real business problem, and achieves a targeted savings.

Our program and building-block approach is modularized so that the organization can quickly transition their Six Sigma resources to the next higher level of achievement. Additionally, they can accomplish this at their own pace, rather than being locked into scheduled waves of education. The number of projects, the levels of education, and the whole deployment and execution approach occur at a digestible pace.

## There's Always A Better Way

Although the Six Sigma approach is different in smaller and mid-sized organizations, success requires leadership and commitment. Many of our smaller and mid-sized clients have gone beyond the Champion level and put their entire executive team through Green Belt certification. These individuals become super-booster Six Sigma leaders because they understand the power of Six Sigma via their mandatory project experience. This sends a strong message to the rest of the organization that Six Sigma is strategically important to our future.

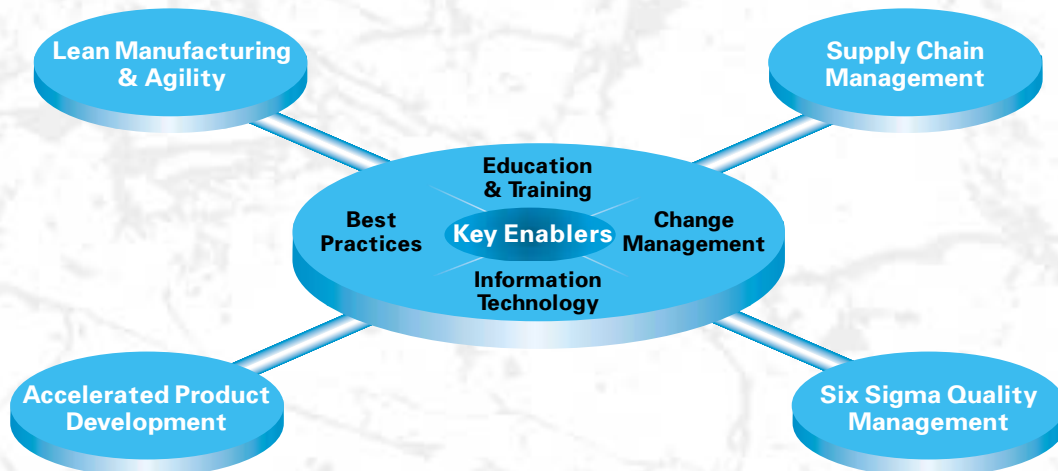
CEO's scaleable approach to Six Sigma enables organizations to achieve results much quicker than the traditional Six Sigma approach. For example, a single Green Belt wave is averaging \$2 million to \$5 million in tangible benefits. This is the implementation approach that fits best with the realities of smaller and mid-sized organizations. **CEO**

**T**he Center for Excellence in Operations, Inc. (CEO) is a leading operations management consulting firm specializing in Breakthrough Operations Improvement. The focus of our firm is practical “hands-on” implementation followed by tangible breakthroughs in business performance. Our primary goal is to help small and mid-sized Manufacturing, Distribution, and Services enterprises implement the latest operations management methodologies and become Best-In-Class performers in their industry.

Our firm was founded in 1991 and we provide high impact services based on our 10X Principle: Many of our clients achieve real annualized benefits in excess of ten times CEO’s fees, within twelve months from the start of our projects. Additionally, 100% of our clients have rehired CEO for other projects because of our ability to deliver proven results. CEO understands implementation — We work *with* clients to implement innovative, systemic change and sustainable breakthrough results.

## Services That Drive Results

- Manufacturing Strategy
- Mixed Mode, Small Lot Production
- Mass Customization
- Pull Systems and Kanban
- Advanced Just-In-Time (JIT)
- Shop Load Centers
- Scheduling Processes
- Cycle Time Reduction
- Work Cell Design and 5S Practices
- Set-Up Reduction and Quick Changeover
- Collaborative Forecasting and Planning
- Sales Inventory Operations Planning (SIOP)
- Push, Pull, and Push- Pull Systems
- Value Chain Synchronization Strategies
- Infotechnologies (ERP, APS, e-business)
- Lean Supply and Continuous Replenishment
- Vendor Managed Inventory Systems
- Supplier Partnering and Development
- 6σ Velocity/ Flexibility Improvement

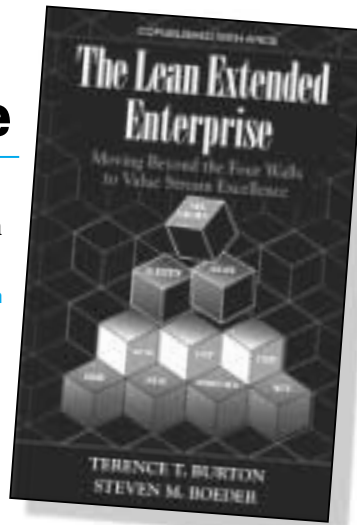


- Concept Engineering and QFD
- New Product Strategy and Planning
- Platform and Portfolio Planning
- New Product Risk Assessment
- Structured Stage/Gate Processes
- Design for 6σ (DFSS) Methodologies
- Automation Tools (CAD/CAM, modeling)
- Program, Project, and Cost Management
- 6σ Operational Excellence Programs
- Black Belt and Green Belt Certification
- Process Capability (Cpk) and SPC
- Gage R&R, FMEA, Control Plans
- Kaizen, Poka-Yoke Practices
- Supplier Quality
- Cost of Quality/Non-Conformance
- ISO/QS 9000 Support

## Update on The Lean Extended Enterprise

CEO has developed what we believe is the next generation of Lean. We have packaged our story in a new book, **The Lean Extended Enterprise: Moving Beyond the Four Walls to Value Stream Excellence** by Terence T. Burton and Steven M. Boeder (J. Ross Publishing, estimated release date of April- May, 2003).


The book contains a Lean Extended Enterprise Reference Model (LEERM) which incorporates strategy, implementation planning, deployment, execution, and integration of all improvement methodologies and tools (i.e., Kaizen, Lean, Six Sigma, ERP, etc.). The reference model also demonstrates the role of enabling technology such as SCM, CRM, PLM, SRM, PRM, networks and portals, and other enabling IT solutions.



The book also includes a Lean Extended Enterprise Assessment Process (LEEAP), which provides a structured evaluation methodology across 7 Best Practice Criteria and 42 Best Practice Categories.

The text also includes many other topics about leadership and infrastructure, performance measurement, and enterprise integration. The Lean Extended Enterprise is a “hands-on” no-spin zone view of Lean in the scope of the total value stream, and presents dozens of anonymous real World examples to drive home many points. It provides new

insights about how to integrate Kaizen, Lean, Six Sigma, ERP, and emerging IT solutions to achieve breakthrough results.

Free downloads and tools from the book are also available on our website. 

W I N T E R 2 0 0 3

[www.ceobreakthrough.com](http://www.ceobreakthrough.com)

PRESORTED  
FIRST-CLASS MAIL  
US POSTAGE  
PAID  
MANCHESTER, NH  
PERMIT #197

The  
Center for  
Excellence in  
Operations, Inc.  
15 Constitution Drive, Suite 128  
Bedford, New Hampshire 03110

