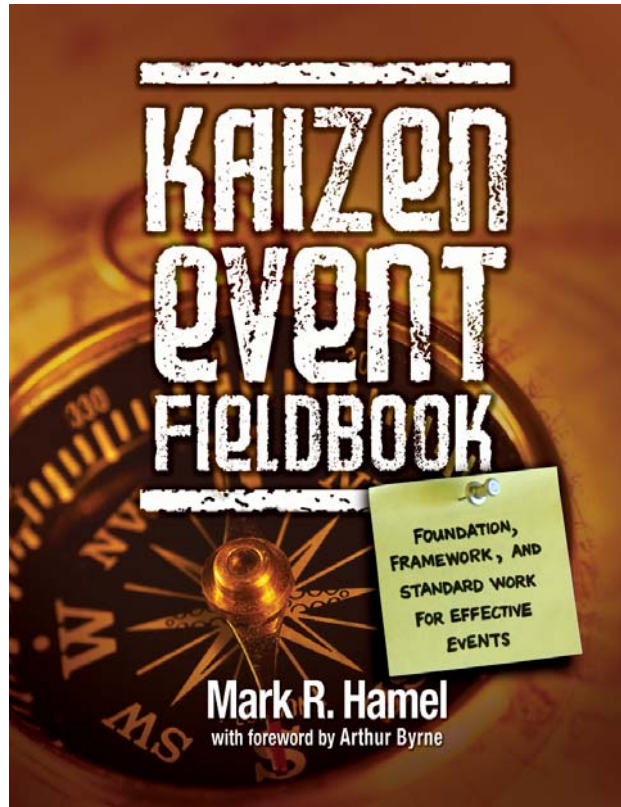


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Kaizen Event Fieldbook

Kaizen Event Fieldbook

**Foundation, Framework, and Standard Work
for Effective Events**

Mark R. Hamel

with foreword by Arthur Byrne



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In memory of Bill Moffitt.

For the benefit of the willing student—read, but learn, first and foremost, by doing!

*In sincere gratitude to the sensei who have enriched my life,
my wife, Mary Ellen, my children, Jack, Kate, and Molly, and
Mary Immaculata.*

BOOK REVIEWER COMMENTS

"The Fieldbook is a must read for those wanting to understand the kaizen methodology. Mark Hamel clearly identifies its role utilizing the TPS version of SDCA and PDCA. He further traces his follow-through model to the 'learn-by-doing' methodology of the Training Within Industry (TWI) program, which was developed in the U.S. during WWII, and is going through a resurgence today as companies struggle to sustain kaizen gains. This book now has a prominent place on my bookshelf."

—Robert J. Wrona, Executive Director, TWI Institute®

"A critical distinction from other texts on the market, the Fieldbook links the technical aspects of kaizen to lean philosophy. Kaizen is the game changer in any lean transformation, and this is the game book."

—Bruce Hamilton, President, Greater Boston Manufacturing Partnership

"Executing effective kaizens is always a challenge. I have not seen any other book on the market that gets into this level of understanding kaizen events—from pre-planning to follow-through. This book will benefit not only the new adopters of lean, but also the early adopters who require a 'back-to-basic' understanding of how to properly execute kaizen events to effectively drive change."

—Richard Levesque, Vice President and General Manager, Professional Division, MAAX U.S. Corporation

"The Fieldbook is a roadmap for organizations to follow as they actively seek a continuous improvement culture and positive bottom-line performance. It is an essential reference for the proper application and implementation of kaizen. I intend to provide everyone on my management team with a copy."

—Max Willsie, Plant Manager, Toyota Boshoku Canada, Inc.

"Applicable to any industry, the Fieldbook shows you what kaizen looks like when done properly. I plan to give one to each of my CEO clients."

—Linford Stiles, Chairman and CEO, Stiles Associates

"Lean is about results and outcomes, not just intense focus on the process. The *Kaizen Event Fieldbook* balances theory with the tactical nuts and bolts, providing a practical roadmap for managers at all levels to strategically deploy kaizen and bring positive results to the bottom line."

—Ted Gramer, Executive Vice President and General Claims Manager, Liberty Mutual Group

"An exceptional and in-depth review of the technical components of kaizen, I found this book to offer sound guidance on how to avoid the pitfalls of inadequate preparation, uncommitted leadership, and lack of focus on sustaining the improvements in business performance that lean anticipates. It is a true reference that I anticipate returning to again and again."

—Jack M. Dutzar, M.D., Fallon Clinic, Inc.

"Amazingly prescriptive and reflecting years of knowledge acquired from renowned sensei, Mark Hamel has done a masterful job with the Fieldbook. Managers, instructors, and employees in any lean or aspiring lean company, within any industry, will find it an indispensable reference to impact positive, sustainable change. I plan to use it as a teaching tool for employees throughout my organization."

—David A. Amrhein, Vice President, Operations and Lean Enterprise, Ascent Healthcare Solutions, Inc.

"During any lean implementation, the pace of kaizen events is critical to maintaining momentum. This well organized, readable book will help us standardize and refine our approach."

—Kenneth Chandler, Vice President of Operations, Smith & Wesson

"Engaging your entire workforce in driving business results is fundamental to lean success. Mark Hamel has done an outstanding job of laying out the team kaizen methodology. The Fieldbook is a practical guide and I recommend it as a read for every business leader and lean practitioner."

—Jerome D. Hamilton, Global Director, Lean Six Sigma & Business Initiatives, 3M Industrial & Transportation Business

"In the *Kaizen Event Fieldbook* Mark Hamel reveals the 'tricks of the trade' for leading effective kaizen events. More than just the technical tools, he emphasizes the importance of understanding and mastering the emotional element to influence and engage employees at every level, which is critical to creating a lean culture."

—Julie DeWane, VP Global Supply Chain, GE Security

"Individuals and organizations looking to either get started or improve their kaizen capabilities will appreciate the hands-on, step-by-step approach provided in the Fieldbook. A guide for success, it also warns of the pitfalls to watch out for on the course of the journey. I am definitely ordering this book for my entire team and selected leaders, and would recommend it to anyone serious about lean."

—Stephen R. Malick, VP, WW Business Improvement, Johnson & Johnson Vision Care, Inc.

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ABOUT THE AUTHOR

Mark R. Hamel is a lean six-sigma implementation consultant. He has played a transformative role in lean implementations across a broad range of industries including aerospace and defense, automotive, building products, business services, chemical, durable goods, electronics, insurance, healthcare, and transportation services. A successful lean coach to leaders and associates, he has facilitated hundreds of kaizen events and conducted numerous training sessions and workshops.



Mark's 19-year pre-consulting career encompassed executive and senior positions within operations, strategic planning, business development, and finance. His lean education and experience began in the early 1990s when he conceptualized and helped launch what resulted in a Shingo-award-winning effort at the Ensign-Bickford Company.

Mark holds a BS in Mathematics from Trinity College in Hartford, Conn., a MS in Professional Accounting from the University of Hartford, and a MA in Theology from Holy Apostles College and Seminary. He is a CPA in the state of Connecticut and is dual APICS: The Association for Operations Management certified in production and inventory management (CPIM) and integrated resource management (CIRM). A na-

tional Shingo Prize examiner, Mark assisted in the development of the Society of Manufacturing Engineers/Association for Manufacturing Excellence/Shingo Lean Certification exam questions. He is also Juran certified as a six-sigma black belt and a member of the Society of Manufacturing Engineers, Association for Manufacturing Excellence, and APICS: The Association for Operations Management.

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ACKNOWLEDGMENTS

“Whoever ceases to be a student has never been a student.”

—George Iles

One of the lean community’s defining characteristics is learning by seeing, doing, and studying. Lean thinkers and practitioners are perpetual students. Those who teach humbly recognize that they cannot know it all and that there is so much to learn. I readily consider myself in that category.

A *sensei*, Japanese for teacher, more literally, “one who has gone before,” is not “hatched.” Early on, every sensei needed his own sensei to instruct, to cajole, to challenge, to allow him to fail, and to evoke self-reflection and adjustment. My sensei included the late Bill Moffitt and his colleague Bob Pentland. To those I add many others—colleagues, friends, and clients to whom I would like to express my sincerest thanks. While I will refrain from identifying them here in fear that I will overlook someone, I would like to recognize the following people who have generously contributed their time and knowledge to make this book better. I have learned, as I trust the reader will, from what they have shared.

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I would also like to recognize Rosemary Csizmadia, SME Senior Production Editor, who patiently coached this neophyte author and helped make this work more readable than it would have been.

FOREWORD

I began my own lean (kaizen) journey in January of 1982 when I became general manager of the High Intensity and Quartz Lamp Department of the General Electric Company. We initiated a simple kanban pull system between my department and one of my suppliers who was also a part of GE's Lighting Business Group. My inventory of quartz arc tubes (the initial kanban target) dropped from 40 days to 3 days and my supplier department totally eliminated the inventory of these parts. The side benefits were so significant that I was hooked: space freed up, better customer service, better quality, and higher productivity. Implementing the Toyota Production System in all the businesses I ran after that became my priority.

I wasn't exposed to the Toyota kaizen event approach, however, until after I left GE at the end of 1985 when I joined the Danaher Corporation where I was a group executive responsible for eight of its then 13 companies. In the summer of 1987, Danaher became the first U.S. client of the recently started (1986) Japanese consulting company, Shingijutsu. All three of the Shingijutsu founders (along with the fourth initial partner who joined them a year later) had spent their entire careers at Toyota. For a number of years prior to founding Shingijutsu, they worked directly for Taiichi Ohno, the father of the Toyota Production System, implementing TPS in the Toyota group companies and in the tier one supplier group. Their initial kaizen efforts focused on two of my companies, Jacobs Engine Brake (Jake Brake) Company and its sister division,

the Jacobs Chuck Company. The results at both were amazing.

They both were so bad when we started, however, that we couldn't get Shingijutsu to work with any of our other businesses until they were comfortable that Brake and Chuck were far enough along on their lean journeys. After several years we got them to branch out into a couple of my other businesses, but that still left the bulk of the Danaher divisions without any lean help. To solve this problem, we instituted what we called the "President's Kaizen" to spread the knowledge and speed the implementation throughout the rest of the company. Every six weeks, a series of kaizen events were held in a Danaher plant where the kaizen team members were the 13 division presidents and their vice presidents of operations. We made a lot of progress and had a lot of fun along the way.

In the end, lean (the Danaher Business System) became the way of life for Danaher and resulted in a price-to-earnings multiple that was double that of other similar companies. This, plus a lean culture, has allowed Danaher to be one of the best-performing public companies over the past 20 years.

In September of 1991, I took the lessons learned and became CEO of the Wiremold Company headquartered in West Hartford, Conn. and, as they say, the rest is (lean) history.

While kaizen events are an extraordinary continuous improvement delivery and deployment mechanism, it is important to make the distinction that they do not equal lean. In fact, many

people mistakenly and myopically believe that because they are doing kaizen events, they are “doing” lean. This couldn’t be further from the truth. Lean transcends tools, events, and even systems. The Fieldbook recognizes this reality and, at the same time, properly asserts that, “a company that does not possess and routinely exercise the capability to effectively target, plan, execute, and follow through on their kaizen events, including the non-negotiable requirements to comply with the new standard work to sustain the gains, cannot and will not successfully transform themselves into a lean enterprise.” In other words, get good at kaizen and sustaining the gains, or forget about lean.

It is for this very reason that I, as Wiremold CEO, *personally* trained hundreds of employees in lean principles and then *personally* facilitated dozens and dozens of kaizen events. On the heels of the launch, we made use of the best sensei to accelerate and expand lean learning and application through kaizen events. One of the sensei, the late Bill Moffitt, was my friend and one of Mark Hamel’s teachers.

Wiremold quickly supplemented the sensei approach with the development of an internal lean function. The people, the true heart and soul behind any lean transformation, responded. The company’s overall improvements approximated the typical kaizen event results. For example, from the end of 1991 until the middle of 2000:

- delivery lead time was compressed from 4–6 weeks to 1–2 days,
- product development lead time dropped from 2 years to 3–6 months,
- space requirements were halved,
- inventory turns increased from 3 times to 18 times,
- productivity improved by 162%,
- customer service satisfaction went from 50% to 98%, and
- the gross profit percentage gained 13 points.

The enterprise-wide improvements drove a 13.4 fold increase in operating profit while sales growth, aided by acquisitions that were enabled by drastic working capital reductions, resulted in Wiremold being able to double sales twice (once

every four years). More importantly, we were able to take a company that was valued at \$30 million at the end of 1990 and sell it for \$770 million in the summer of 2000 (a gain of 2,467%).

These types of results may seem other-worldly, but they need not be. Breakthrough performance is achievable no matter the industry or value stream. Lean is not, as was initially claimed by the naysayers, limited to the automotive industry; nor is it only a manufacturing “thing.” Due to its universal principles and common enemies (waste, unevenness, and overburden), lean and with it, kaizen, extends to healthcare, financial services, insurance, government, transportation, entertainment, etc.

Mark Hamel is a lean teacher, a sensei, who has studied under some of the very best and has learned by doing. He has the mind and motivation of a learner, as evidenced by his “arrangement” (through a colleague’s wife who happened to work for me at Wiremold) of a 1994 presentation by yours truly at his employer. That presentation sparked a Shingo-Prize-winning lean transformation and launched his immersion into lean thinking, practicing, and teaching. I have had the benefit of Mark’s lean implementation expertise at several of my business interests over the years.

The full name of his work, *The Kaizen Event Fieldbook: Foundation, Framework, and Standard Work for Effective Events*, like the page count, is pretty big. It’s big, but very important. The Fieldbook should be required reading for any enterprise that truly seeks to become lean. It necessarily addresses the basic foundation of lean and the roots of kaizen. Further, it briefly explores something very near and dear to my heart, lean leadership. And, it lays out the standard work for how to “pull” kaizen by recognizing strategic imperatives and value stream improvement needs, and then rigorously planning, executing and following through on each kaizen event. Finally, the Fieldbook provides insight into how best to establish your own lean function or kaizen promotion office.

In short, for those who are profoundly committed, lean transformation efforts are absolutely worth the necessary blood, sweat, and tears. Ineffective kaizen events, however, induce

disproportionate and unnecessary suffering and can quickly derail a lean implementation. The prize goes to those who understand that much of lean is about working smarter, not harder. The Fieldbook positions both the practitioner and the lean leader to work a lot smarter and a lot more effectively.

What now? Go to the gemba and put the Fieldbook in action!

Arthur Byrne
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CEO of the Wiremold Company
Avon, Conn.
September 8, 2009