Perhaps the most fundamental challenge that companies adopting a lean strategy must face is how to sustain initial momentum and develop a corporate culture with an ongoing commitment to that strategy. While efficient tools and strategies are essential to the cause, just as critical is a shared confidence that this endeavor is the right course. While one has to make the road by walking it, knowing that others have walked a similar path can both be instructive and encouraging.

Sustaining Lean: Case Studies in Transforming Culture, the third compilation of articles originally published in AME’s well-regarded Target magazine, provides accounts of challenges encountered and methods applied by organizations in pursuit of lean. While a few of the articles broadly discuss issues involved in long-term transformation, the vast majority provide illuminating and often inspirational case studies. Following an insightful introduction by noted lean expert David Mann, this compelling volume—

- Provides practical, in-depth descriptions of the structures and processes that actual companies have developed to sustain a lean culture
- Shows how both cutting-edge and proven improvement methods can be applied to a range of operations and industries
- Demonstrates how the use of teams across an organization will foster continuous improvement

Telling the stories of companies that overcame significant cultural challenges, this book will help any manager understand what it takes to communicate a vision of improvement and achieve the empowerment of stakeholders vital to rapid change and long-term success.
Series Mission

To share new ideas and examples of excellence through case studies and other reports from all types of organizations, and to show how both leading-edge and proven improvement methods can be applied to a range of operations and industries.

Green Manufacturing: Case Studies in Lean and Sustainability
Lean Administration: Case Studies in Leadership and Improvement
Sustaining Lean: Case Studies in Transforming Culture
SUSTAINING LEAN
Case Studies in TRANSFORMING CULTURE

Association for Manufacturing Excellence (AME)
## Contents

Introduction ......................................................................................................................... ix

**Chapter 1**  The Case for Lean Culture: Sustain the gains from your lean conversion .......................................................... 1  
*David Mann, Ph.D.*

**Chapter 2**  Leading the Working Culture Revolution ......................... 19  
*John Woods and Robert W. Hall*

**Chapter 3**  Thriving on Continuous Learning at Hewlett-Packard America’s Software Manufacturing (ASM): It’s more than a strategy — it’s their culture ..... 33  
*Lea A.P. Tonkin*

**Chapter 4**  Batesville Casket Company’s Culture of Continuous Improvement: Innovation, creativity — and yes, listening to the voice of the customer — are alive and well here .................................................................................. 43  
*Lea A.P. Tonkin*

**Chapter 5**  5S at Deceuninck North America’s Monroe Site: Sustaining and Improving the Gains: 5S is the foundation for culture change and continuing improvements .................................................................................. 51  
*Cash Powell Jr. and Steve Hoekzema*

**Chapter 6**  Team-Centered, Continuing Improvements at General Dynamics Advanced Information Systems: Teamwork and a long-term commitment to continuous improvement make the difference .............. 65  
*Jim Tennessen and Lea A.P. Tonkin*
vi • Contents

Chapter 7  Re-Making Furniture Making at Hickory Chair Company: Their “secret weapon”: employees......... 75
Deborah Porto and Michael Smith, PhD

Chapter 8  Stable Chaos: Leading Change in the Fast Lane ........ 107
Douglas F. Carlberg

Chapter 9  How Human Resource Departments Can Help Lean Transformation ........................................ 119
Dr. Monica W. Tracey and Jamie W. Flinchbaugh
Series Mission

To share new ideas and examples of excellence through case studies and other reports from all types of organizations, and to show how both leading-edge and proven improvement methods can be applied to a range of operations and industries.
Introduction

One of the most widely recognized challenges facing companies adopting a lean strategy is how to sustain initial momentum and develop a corporate culture with a built-in, ongoing commitment to that strategy. The chapters in this book provide some insights as to how that can be achieved.

These chapters were originally published as articles in the well-regarded magazine *Target*, published by the Association for Manufacturing Excellence. Most of the articles chosen for this collection are case studies; a few more broadly discuss the issues involved in long-term cultural transformation.

In Chapter One, David Mann, Ph.D., author of the book *Creating a Lean Culture: Tools to Sustain Lean Conversions*, discusses just what it means to have a lean culture. He explains the importance of the lean conversion of management systems, as well as production processes, and he describes the need to achieve that conversion through the proper sequence of steps, as well as what questions to ask.

In a similar vein, Chapter Two talks about the “working culture gap” between a typical non-lean organization with a structured flow of operations and an organization that is habitually learning. The focus in this chapter is on leadership, and how leaders must understand and support process excellence, encourage a thinking culture, set strategic direction and create the proper structure.

A case study of an organization that works to achieve all this is the subject of Chapter Three – specifically, Hewlett-Packard America’s Software Manufacturing division. Learn in this chapter how the division’s employees, led by committed leaders, use training, tools and well-defined goals to sustain their culture.

Batesville Casket Company, the focus of Chapter Four, is also a company that works hard to sustain its culture. This chapter describes how that culture is defined as Daily Continuous Improvement, as well as the company’s very strong focus on listening to the voice of the customer.

At Deceuninck North America, the company described in Chapter Five, a culture of continuous improvement is based on a foundation of 5S. While 5S is often viewed as simply one lean tool, the cultural changes and work habits it helps establish can have far-reaching effects in bringing about cultural transformation.
A team-centered approach is at the heart of continuous improvement at General Dynamics Advanced Information Systems, explained in Chapter Six. Key elements include permanent factory teams, temporary kaizen teams, and strong communication among all teams and all employees.

How a struggling company in a declining market turned itself around is the story told in Chapter Seven. Hickory Chair Company, through strong and dedicated leadership as well as a new culture of empowered employees, avoided traveling the outsourcing route chosen by many in its industry, managing not only to maintain U.S. operations but to do so profitably.

At M2 Global, the focus of Chapter Eight, new business demands prompted the company to pursue a multi-pronged effort to redefine itself. That effort included tapping into the knowledge and expertise of the workforce, finding a better manufacturing philosophy, and embracing an adaptation of quality function deployment.

A fully engaged HR department can be valuable in sustaining lean culture, or so argue Dr. Monica Tracey and Jamie Flinchbaugh in Chapter Nine. Basing their comments about research on lean transformations, they offer specific recommendations to HR managers regarding their role in these transformations.

Whether you are in the early stages of building a lean culture or far along the journey, you face the challenge of sustaining that effort. The chapters in this book can be a valuable resource in meeting that challenge.
The Case for Lean Culture: Sustain the gains from your lean conversion

David Mann, Ph.D.

IN BRIEF

Becoming a lean organization means transforming not just production processes, but management as well. A lean management system is an integral element of the lean process, critical to sustaining gains. It is important to understand what lean culture is and what issues must be addressed or obstacles overcome to create that culture.

There’s a missing link in most descriptions of lean manufacturing. It’s lean culture, and a lean management system to go with it. Management practices for lean and the lean culture that grows from them are like many other aspects of lean: easy to grasp but difficult to consistently execute. This article provides a framework to understand three related topics: the nature of lean and mass production cultures, how lean management practices differ from those in mass production, and the nature of the task in changing from mass to lean culture.

“Culture” and “management system” are used interchangeably in this article. The lean management system consists of the discipline, daily practices, and tools needed to sustain and extend lean implementations. Lean culture grows from these practices when the practices become habitual, a way of thinking or mindset. So, don’t focus on “culture” as a target. Focus instead on behavior, on habits and practices, extinguishing the old and reinforcing the new. As you prepare to do this, be aware that the task is
formidable. The lion’s share of what it takes to make lean conversions long-running success stories is the change in management systems from mass to lean.

First, consider lean production. Lean manufacturing is an idea whose time has come. Manufacturers the world over have recognized the advantages in leadtime, productivity, quality, and cost enjoyed by lean competitors in industry after industry. One of the attractive features of lean is that it’s so easy to understand. Customer focus, value stream organization, standardized work, flow, pull, and continuous improvement are readily grasped.

Second, lean is typically not capital intensive; it relies on simple, single-purpose equipment with minimal automation. Lean scheduling systems are equally simple and inexpensive, rarely requiring much if anything in the way of incremental IT investment. Finally, lean layouts and material flows are relatively straightforward to design and implement whether through redesign of entire value streams or more narrowly-focused kaizen events.

PARALLEL IMPLEMENTATIONS

So, lean production confers many advantages. It is easily grasped, requires minimal capital for equipment and systems support, and is relatively straightforward to implement. Yet, the experience of many — indeed, most — companies that have attempted to convert to lean production has been failure and retreat. This is one of the paradoxes of lean. It seems so easy, yet success is so difficult!

What is it about lean that makes successful implementation so rare as to be newsworthy? Something, some crucial ingredient, must be missing from the standard list of steps in lean conversions. The missing link is this: a parallel lean conversion effort, that is, one that converts management systems from mass production to lean.

CHANGING FROM WHAT, TO WHAT?

The physical changes in a lean conversion are easy to see: Equipment gets rearranged, inventory is reduced and deployed in new ways, there are
notable changes in material supply, production scheduling, and standardized methods. The change in management systems is not so obvious. An orienting question about the lean management system might be: Change from what, to what?

FROM: CONVENTIONAL MASS PRODUCTION

Think about management in a conventional mass production operation. First and foremost, the focus is on results, on hitting the numbers: Did we meet the schedule for this day or this week? How many defective units were caught by quality inspections? Did we hit our targets for material cost and production labor? Managers in conventional systems track key indicators like these through monitoring and analysis of reports that summarize the previous period’s (day, week, or month) data.

Managers attend many meetings to review production status and troubleshoot problems. These meetings typically revolve around computer-generated reports that line managers and support group specialists pore over in conference rooms. Disagreements are common about which departments’ reports to believe. (These disagreements can sometimes be resolved only by doing actual cycle counts or other research on the production floor!) The focus is usually retrospective, looking at what happened last reporting period, determining who or what messed up, and deciding how to recover. With more sophisticated IT systems, these data are accessible more or less in “real” time. Looking at a computer monitor, managers can see a numerical or even graphic reflection of the state of their production process. This seems like an improvement, and often can be — provided one can sift through all the available data to identify the critical numbers to watch.

FROM: DO WHATEVER IT TAKES!

When problems arise that threaten schedule completion, the common practice is “do whatever it takes” to meet the schedule. Expedite internal parts, pressure suppliers, airfreight late materials, put on more people, pressure the inspectors, reorder missing parts with a fudge factor to make