

# CONTENTS

**Foreword xi**

**Preface xv**

**Acknowledgments xxi**

## **Chapter 1**

Why Use Lean Six Sigma to Reduce Cost? 1

Transactional Example: Lean Six Sigma Transforming Our  
Government 6

The Alloy of High Performance: Why Choose Lean  
Six Sigma to Reduce Cost? 6

Lean Six Sigma versus Traditional Cost-Cutting Tactics 9

Emerging Stronger Than Ever 14

## **Spotlight #1**

How to Use This Book 17

Overview of Part I: Process Cost Reduction—a Focus on the  
Tools of Waste Elimination 18

Overview of Part II: Enterprise Cost Reduction—a Focus on Value,  
Speed, Agility and Competitive Advantage 19

Overview of Part III: Accelerating Deployment  
Returns—Getting More, Faster, from a Lean  
Six Sigma Deployment 20

## **Part I**

### **PROCESS COST REDUCTION: A FOCUS ON WASTE ELIMINATION**

Introduction to Part 1 23

**Chapter 2**

Find Cost Reduction Opportunities in Waste	25
The Seven Common Faces of Waste: TIMWOOD	27
Using the Full LSS Toolkit to Drive Cost Reduction	37

**Spotlight #2**

Special Tips for Nonmanufacturing Processes	39
Key Success Factors in Reducing Costs in Services and Retail	40

**Spotlight #3**

Design a Successful Lean Six Sigma Project or Pilot	45
Which Methodology Is Right for Your Project?	45
Identifying the Players and Their Roles	47

**Chapter 3**

Use the Voice of the Customer to Identify Cost-Cutting Opportunities	51
Customer Types and Their Needs	52
Collecting Data on Customer Needs	53
Getting Specific about Customer Needs	57
Avoiding Misinterpretations	60
Conclusion	64

**Chapter 4**

Make Processes Transparent to Expose Waste	65
How to Define the Boundaries through SIPOC Diagrams	67
Using Value Stream Maps to Achieve Transparency	69
Conclusion	82

**Chapter 5**

Measure Process Efficiency: Finding the Levers of Waste Reduction	83
Process Cycle Efficiency (PCE): The Key Metric of Process Time and Process Cost	84
Little's Law: Understanding the Levers for Improving Process Speed	88
The WIP Cap Method: How Limiting WIP Can Increase Process Speed and Reduce Costs	90
Using PCE and Little's Law to Drive Cost Reduction	95

## CONTENTS

vii

**Chapter 6**

Improve Your Analysis Skills: How Understanding Variation,  
Root Causes, and Factor Relationships Can Help You Cut Costs  
While Improving Quality 97

- Analysis Skill #1: Learning to “Read” Variation 98
- Analysis Skill #2: Digging Out Root Causes 107
- Analysis Skill #3: Establishing relationships between factors 109
- Conclusion 114

**Chapter 7**

Make Rapid Improvements through Kaizens 117

- Quick Overview: The Kaizen Approach 119
- When Should You Use Kaizens in Cost Reduction Projects 120
- Seven Keys to Kaizen Success 124
- Conclusion 129

**Part II**

## RAISING THE STAKES: REDUCING COSTS AT AN ENTERPRISE LEVEL

**Chapter 8**

Think Transformation, Not Just Improvement 133

- Attain a Proper Understanding of the Extent of the  
Opportunity 135
- Consciously Choose a Path to Capture the Opportunity 138
- Plan for a Transformation Journey 144
- Leadership Challenges in Leading a Transformation 151
- Conclusion 152

**Spotlight #4**

Transformation at Owens-Illinois 155

**Chapter 9**

Unlock the Secrets to Speed and Flexibility 159

- Alignment and Analytics 160
- A Model of Speed and Agility 162
- Economic Order Quantity (EOQ)—The First 100 Years 165
- Augmenting EOQ with Lean Analytics 167
- The Equations in Action 173
- Conclusion 176

**Chapter 10**

Reduce the Cost of Complexity	177
The Hidden Cost of Added Offerings on Processes	179
Assessing Complexity in Your Business: A Holistic View	182
Highlights of the Complexity Analysis Process	183
Complexity Reduction as the Gateway to Transformation	195
Conclusion	196

**Chapter 11**

Look Outside Your Four Walls to Lower Costs Inside	197
What Is an Extended Enterprise?	199
Working on the Supplier End of the Extended Enterprise	204
What to Do When You're the Supplier: Extending Your Enterprise Downstream	208
Conclusion	211

**Part III**

## SPEEDING UP DEPLOYMENT RETURNS: STRATEGIES FOR GETTING MORE, FASTER, FROM A LEAN SIX SIGMA DEPLOYMENT

**Chapter 12**

Create a Pipeline of Cost Improvement Projects: The Secret to Protecting the Heart of Your Business	215
Developing Rigor in Project Identification and Selection	217
From First-Time to All the Time: Shifting from a One-Time Event to an Ongoing System of Pipeline Management	226
Conclusion: Maintaining a Dynamic Pipeline	230

**Spotlight #5**

Link Projects to Value Drivers	233
Option 1: Value Driver Trees	233
Option 2: Financial Analysis Decision Tree	237
Option 3: Economic Profit	237
Option 4: EP Sensitivity Analyses	239
Value Driver Example	243

**Chapter 13**

Smooth the Path through Change	247
Change Readiness Assessments	248
Leading versus Managing the Change	250

## CONTENTS

ix

Upgrading Your Communication Plan	253
Process Ownership and Cost Accountability	259
Conclusion: Restoring Faith, Hope, and Belief	260

**Chapter 14**

Establishing a Center of Excellence	261
What Is a CoE and What Does It Do?	263
Focus #1: Performance Management	265
Focus #2: Replication: Copy and Paste Your Cost Savings	270
How Can a CoE Fit into an Organization?	273
Weaving the CoE into Strategic Planning	277
Conclusion	279

**Chapter 15**

Gaining New Perspectives on Deployment Cost and Speed Opportunities	281
Looking for Focus and Flexibility in Deployment	282
Focusing Deployments on Business Issues	283
Flexibility in Building Skills	286
Conclusion	297

**Chapter 16**

Reenergizing a Legacy Program	299
Why Deployments Lose Steam	300
Building a Steam Engine: Performance Management	306
Process Ownership: The Partner of Performance Management	307
How to Reenergize a Deployment	311
Conclusion	318

**Index 319**

