

Contents at a Glance

<i>Introduction</i>	1
<i>Part I: Lean Basics</i>	7
Chapter 1: Defining Lean	9
Chapter 2: The Foundation and Language of Lean	27
<i>Part II: Understanding Flow and the Value Stream</i>	47
Chapter 3: Seeing Value through the Eyes of the Customer	49
Chapter 4: A Resource Runs through It: Value Stream Mapping	71
Chapter 5: Charting the Course: Using Value Stream Maps	93
Chapter 6: Flowing in the Right Direction: Lean Projects and Kaizen	117
<i>Part III: The Lean Toolbox</i>	133
Chapter 7: Customer and Value-Stream Tools	135
Chapter 8: Flow and Pull Tools	151
Chapter 9: Perfection Tools	169
Chapter 10: Management Tools	191
<i>Part IV: The Lean Enterprise</i>	209
Chapter 11: Lean in the Organization: Principles, Behaviors, and Change.....	211
Chapter 12: Power to the People.....	227
Chapter 13: Go Lean: Implementation Strategy, Startup, and Evolution.....	251
Chapter 14: Lean within the Enterprise.....	271
Chapter 15: Lean across Industry	295
<i>Part V: The Part of Tens</i>	313
Chapter 16: Ten Best Practices of Lean.....	315
Chapter 17: Ten Pitfalls to Avoid	321
Chapter 18: Ten Places to Go for Help.....	327
<i>Glossary</i>	335
<i>Index</i>	345

Table of Contents

.....

<i>Introduction</i>	1
About This Book.....	2
Conventions Used in This Book	2
Foolish Assumptions	3
How This Book Is Organized.....	4
Part I: Lean Basics	4
Part II: Understanding Flow and the Value Stream.....	4
Part III: The Lean Toolbox	4
Part IV: The Lean Enterprise	5
Part V: The Part of Tens.....	5
Icons Used in This Book.....	5
Where to Go from Here.....	6
<i>Part 1: Lean Basics</i>	7
Chapter 1: Defining Lean	9
What Is Lean?.....	12
Waste not, want not.....	12
The logic of Lean	13
Where is Lean?.....	14
What it's not	17
What makes Lean so special?	18
The Lean Pedigree.....	19
Toyota and Ohno.....	20
The Toyota Production System	20
Lean and Its Continuous Process Improvement Cousins	22
Total Quality Management (TQM)	22
Six Sigma.....	23
Theory of Constraints (TOC).....	24
Total Productive Maintenance (TPM).....	24
ISO-9000	24
Business Process Management (BPM)	25
Chapter 2: The Foundation and Language of Lean	27
Understanding Lean Basics	28
Creating the foundation.....	28
Learning from TPS.....	35
Foundational wisdom	37
Getting into Shape.....	43
Muda, muda, muda.....	43
All in the family.....	45

Part II: Understanding Flow and the Value Stream47

Chapter 3: Seeing Value through the Eyes of the Customer49

What Is Value?.....	49
To Add Value or Not to Add Value, That Is the Question.....	51
Defining value-added	51
Defining non-value-added.....	52
When non-value-added seems like value-added.....	53
Understanding How the Customer Defines Value.....	55
Uncovering the elusive customer	55
Considering customer value	57
Understanding How the Consumer Defines Value	61
Responding to the consumer.....	62
Understanding what consumers value	64
Introducing the Value Stream	65
Visualizing the value stream	66
Looking at the flow of information.....	67

Chapter 4: A Resource Runs through It: Value Stream Mapping ...71

The Who, What, and Why of Value Stream Maps	72
The purpose of a Value Stream Map	74
The people who use a Value Stream Map.....	74
The elements of a Value Stream Map.....	75
Row, Row, Row Your Boat: Getting Started.....	76
Identifying the natural owner	76
Gathering the crew.....	77
Using mapping tools	77
Gathering supporting information	79
A VSM example: Pre-made gourmet salads.....	80
Sorting Through the Tributaries: Creating the Current-State	
Value Stream Map	82
Identifying the activities	82
Qualifying and quantifying	85
Determining the information flow	87
Summing Up the Process	88
The box score	89
Takt time.....	90
Check the Chart: Validating the Value Stream Map	90

Chapter 5: Charting the Course: Using Value Stream Maps93

Investigating the Value Stream for Clues.....	94
Rounding up the usual suspects	94
Analyzing from different perspectives.....	98
Evaluating the evidence: An analyzed example	103

Painting a Picture of the Future.....	106
Creating the Ideal-State Value Stream Map:	
Where all is perfect in the world	107
Stepping closer to perfection: The Future-State Value Stream Map	107
Creating the Mosaic of Continuous Improvement:	
Setting the Stage for Kaizen	114
Looking toward the annual horizon	114
Future-State implementations.....	115
Chapter 6: Flowing in the Right Direction:	
Lean Projects and <i>Kaizen</i>	117
Kaizen: A Way of Life.....	118
Kaizen: The philosophy.....	118
Kaizen in action	119
Improving the Value Stream with Kaizen	122
Selecting projects	122
Project methodology.....	123
Individual projects	125
Group projects	125
Kaizen: The Workshop.....	127
Planning the Kaizen workshop	127
Conducting the Kaizen workshop	130
Sustaining the Kaizen-workshop gains	132
 Part III: The Lean Toolbox	 133
Chapter 7: Customer and Value-Stream Tools	135
Communing with the Customer	135
Capturing the voice of the customer	135
Understanding customer satisfaction	137
Sizing up the competition	138
Working with the Value Stream	140
Quantifying the value stream.....	140
Making Woodward and Bernstein proud: Investigating your value stream like a reporter	143
Using Qualitative Tools	145
Relations Diagrams: Relating to each other.....	145
Affinity Diagrams: Like meets like	147
Tree Diagrams: From trunk to leaves.....	147
Matrix Diagrams: Where information meets.....	148
Matrix Data Analysis Charts: Comparing multiple characteristics	148

Process Decision Program Charts:	
Understanding and mitigating risk	149
Activity Networks or Arrow Diagrams:	
Networking activities	149
Working with Software Tools	149
Chapter 8: Flow and Pull Tools	151
Flow	152
Establishing order through 5S	152
Take one, make one	154
Preventing blockages to flow	161
Pull	165
Smoothing out the bumps	165
Signaling replenishment	166
Changing logistics	168
Chapter 9: Perfection Tools	169
Beginning with Standardized Work	169
Guiding rules for standardized work	170
Implementing standardized work	171
Improving with Kaizen	174
Seeing Is Knowing: Visual-Management Tools	175
Andon	176
Display boards	176
Cross-training charts	178
Pictograms	179
Everyday Improvement Tools	179
The 5 Whys	180
The seven basic tools of quality	181
Computer Tools	189
Chapter 10: Management Tools	191
Managing Strategy	192
Hoshin: Balanced planning	192
The Balanced Scorecard	197
BAM! BAM! Management dashboards	199
Creepy, crawly spider charts	201
Go and See	204
Genchi genbutsu	204
Gemba walks	205
Software and Information Management	206
Lean facilitation software	206
Statistics and graphical analysis	207
Business Process Management	207

Part IV: The Lean Enterprise.....209
Chapter 11: Lean in the Organization: Principles, Behaviors, and Change211

Assessing Organizational Culture	212
Will the real principles please stand up?	212
Getting the culture to the starting line	213
Measuring the gap	215
Changing the Organization	217
Going through the five phases of change.....	218
Hurdling roadblocks to success	221
Forecasting the Future.....	222
The journey that never ends.....	223
Propagating the principles.....	223
Differentiating the parts from the whole.....	225

Chapter 12: Power to the People227

The Human Side of Change	228
Change and the individual	228
Change and the team	234
Change and the managers	237
The Master and the Students	246
The Lean sensei	246
Lean students.....	248

Chapter 13: Go Lean: Implementation Strategy, Startup, and Evolution251

Preparing to Go Lean	252
Starting from the top.....	252
Creating the Lean infrastructure	254
Beginning the Journey: The Lean Rollout	256
Minding the big picture	257
Picking the starting point	258
Creating awareness	259
Avoiding program-of-the-month syndrome.....	261
Measurements: The enterprise at a glance	262
Living Lean	263
The Lean evolution	264
Building the learning organization	266
Creating the continuous-improvement mindset	267
Facilitating with finance	268
Getting support from IT	269
Now I am the master	269

Chapter 14: Lean within the Enterprise	271
Lean Enterprise Management	272
It's a Lean, Lean, Lean, Lean world	272
Leaning up the support functions	273
Lean Product Development	277
Product development: The systems approach.....	280
Hearing the voice of the customer	280
Front-loading the engineering process	281
Concurrent engineering.....	281
Genchi genbutsu: Go and see	283
Rigorous standardization — for maximum flexibility.....	283
Designing for manufacture	284
Built-in learning	286
A few words about software development.....	286
Lean Supplier Management	287
Behaving like one entity: The architecture of supply.....	288
Binding the links	289
Let it flow.....	289
Logistics.....	289
Positioning stock strategically in the chain.....	290
Lean Production Processes	290
Lean Customer Management	292
Selling the customer	293
Servicing the customer.....	293
Lean and the Quality Organization	294
Chapter 15: Lean across Industry	295
Starting with What's Common.....	295
Lean Manufacturing	296
From batch to flow	297
Safety: "The sixth S"	298
Reducing inventory	298
Kanban, just-in-time, and the pull system.....	299
Volume and variety	300
Lean Services.....	301
Commercial services versus internal services.....	302
A service is a product, too!	303
The seven forms of service waste.....	304
Improving services the Lean way.....	305
Lean Transactions.....	307
Lean Government.....	308
Lean in Healthcare	309
Improving healthcare through Lean	310
Defining waste in healthcare.....	310
Lean Everywhere.....	311
Nonprofit organizations.....	311
Retail	311

<i>Part V: The Part of Tens</i>	313
Chapter 16: Ten Best Practices of Lean	315
Feel the Force (of the Customer), Luke.....	315
Step by Step, Inch by Inch.....	316
Follow the Value Stream	316
Eat Your Vegetables	316
Turn Over a Rock	317
People First!	317
Genchi Gambutsu.....	317
The Art of Simplicity.....	318
At a Glance	318
Standardize Something — Standardize Everything!	319
Chapter 17: Ten Pitfalls to Avoid	321
Yawn.....	321
Same-Old Same-Old Senior Management	322
Quick Fix!.....	323
Cherry-Picking.....	323
Beans Are Beans.....	324
Playing the Shell Game	324
The Grease Monkeys	325
Busy Bees	325
Stuck in the Middle Again	325
Lean Six Sigma	326
Chapter 18: Ten Places to Go for Help	327
Books and Publications.....	327
Online Information	328
Blog Sites	329
Professional Societies and Associations	329
Conferences and Symposia.....	330
Consultants, Facilitators, and Trainers	331
Lean Periodicals.....	331
Software Providers.....	332
Practitioners	332
Related Genres	332
<i>Glossary</i>	335
<i>Index</i>	345

