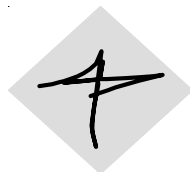

The
Lean Product
Development
Guidebook

Everything Your
Design Team Needs to Improve
Efficiency and Slash Time-to-Market

Ronald Mascitelli



TECHNOLOGY PERSPECTIVES

Northridge, CA

© Copyright 2007 by Technology Perspectives

All rights reserved

Editorial and Sales Offices: Technology Perspectives

18755 Accra Street, Northridge, CA 91326

(818) 366-7488

Publisher's Cataloging-in-Publication

(Provided by Quality Books, Inc.)

Mascitelli, Ronald.

The lean product development guidebook : everything
your design team needs to improve efficiency and slash
time-to-market / Ronald Mascitelli.

p. cm.

Includes bibliographical references and index.

LCCN 2006905344

ISBN-978-0-9662697-3-4

ISBN 0-9662697-3-X

1. Product management.
2. Industrial management.
3. Time to market (New products) I. Title.

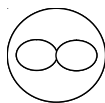
HF5415.15.M353 2006

658.5

QBI06-600318

10 9 8 7 6 5 4 3 2 1

First Edition



This book is printed on acid-free recycled paper meeting
the requirements of the American National Standard for
Permanence in Paper for Printed Library Materials.

Manufactured in the United States of America

Dedication

*To all those
who have dedicated their
lives to protecting the
natural world.*

<i>Section 3.4 - Manufacturability: The “How’s it Built?” Review</i>	<i>115</i>
<i>Section 3.5 - Knowledge Management and Organizational Learning</i>	<i>127</i>
Part 4 - Establishing Product Design Requirements	
<i>Section 4.1 - Customer Perception and Product Value</i>	<i>143</i>
<i>Section 4.2 - Must / Should / Could Prioritization</i>	<i>153</i>
<i>Section 4.3 - An Overview of Set-Based Design</i>	<i>165</i>
Part 5 - Rapid Project Execution	
<i>Section 5.1 - Exception-Driven Status Reporting</i>	<i>177</i>
<i>Section 5.2 - Stand-up Meetings and Visual Project Boards</i>	<i>185</i>
<i>Section 5.3 - Time-Slicing and “Project Time”</i>	<i>203</i>
<i>Section 5.4 - Lean Scheduling and Value Milestones</i>	<i>217</i>
<i>Section 5.5 - E-mail Rules, Lean Meetings, and Other Time-Savers</i>	<i>229</i>
<i>Section 5.6 - Conquering Batches, Queues, and Resource Bottlenecks</i>	<i>241</i>
Part 6 - Focus on Improvement	
<i>Section 6.1 - Value-Stream Mapping and Kaizen Events</i>	<i>255</i>
<i>Section 6.2 - The Lean Self-Assessment Tool</i>	<i>271</i>
<i>Section 6.3 - A Proven Strategy for Deployment</i>	<i>277</i>
<i>Recommended Reading in Lean Product Development</i>	<i>289</i>
<i>Glossary</i>	<i>291</i>
<i>Bibliography</i>	<i>299</i>
<i>Index</i>	<i>303</i>

Books by Ronald Mascitelli -

***Building a Project-Driven Enterprise:
How to Slash Waste and Boost Profits Through Lean
Project Management***

***The Lean Design Guidebook:
Everything Your Product Development Team Needs to
Slash Manufacturing Cost***

***The Lean Product Development Guidebook:
Everything Your Design Team Needs to Improve
Efficiency and Slash Time-to-Market***

***The Lean Team Guidebook:
How to Innovate, Communicate, and Create
Breakthrough New Products at Lightning Speed
(Forthcoming 2008)***

Acknowledgements

As with an acceptance speech, there are always far too many people to thank. I would like, however, to single out several individuals for their contributions to this guidebook, and to the field of lean product development in general. First, of course, are the good people at the Lean Enterprise Institute (www.lei.org), embodied in James Womack and his coworkers, for their continuing energy and ongoing support of lean enterprise endeavors. Dr. Allen Ward has contributed groundbreaking work in translating the subtleties of the Toyota product development process into useful tools and ideas. His work has been carried on by Michael Kennedy, Durward Sobek, Jeffrey Liker, and others. Don Reinertsen has continued to build on his already considerable contribution to slashing time-to-market, most recently with a specific focus on lean product development. Finally, several other authors have brought their unique perspectives to the field, including Clifford Fiore, John Bicheno, and Mary Poppendieck to name a few.

From the standpoint of influence on the material contained in this guidebook, however, the true credit goes to my client firms and professional peers for enabling me to test, refine, and retest many of the tools and methods found herein. In particular, I would like to thank Tim Matuseski, Norm Raffish, Maria Elena Stopher, Doug Carlberg, Kaye Treese, Dave Hogg, Phil Ebeling and his team, Tim Mitchell, Mike Barre, and Jon Simons. Finally, I owe an enormous debt of gratitude to my wife, Renee, who is my editor and publisher. She has worked with me on four books (so far) and has managed not to kill me in my sleep (so far).

Ron Mascitelli
September, 2006

***“Nothing is more simple
than greatness; indeed, to be
simple is to be great”***

Ralph Waldo Emerson