

Learning to See

Value-Stream Mapping to Create Value and Eliminate Muda

By Mike Rother and John Shook

Foreword by Jim Womack and Dan Jones

A Lean Tool Kit Method and Workbook

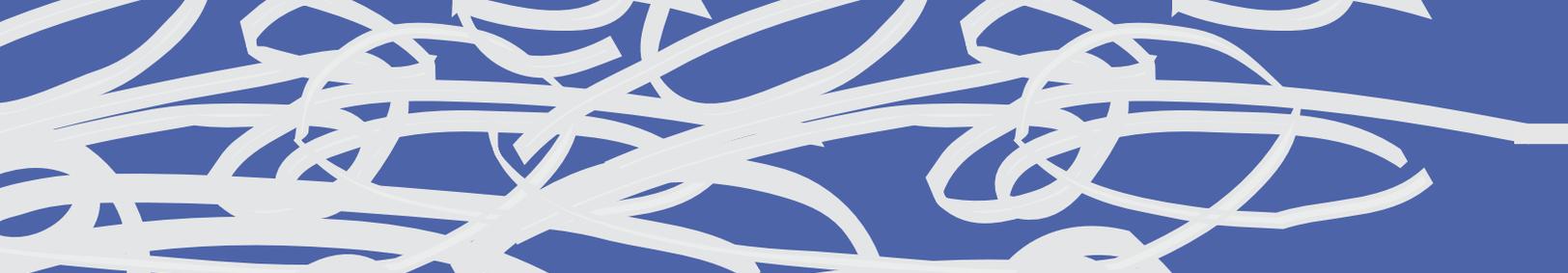
THE LEAN ENTERPRISE INSTITUTE

Brookline, Massachusetts, USA

www.lean.org

Version 1.3

June 2003



FOREWORD

By Jim Womack and Dan Jones

When we launched *Lean Thinking* in the Fall of 1996 we urged readers to “Just do it!” in the spirit of Taiichi Ohno and other pioneers of the Toyota system. With more than 300,000 copies in print (including the Second Edition launched in the spring of 2003) and with a steady stream of e-mails, faxes, phone calls, letters, and personal reports from readers telling us of their achievements, we know that many of you are taking our and Ohno’s advice.

However, we are also aware that many readers have deviated from the step-by-step transformation process we describe in Chapter 11 of *Lean Thinking* (and enhance in chapter 15 of the Second Edition):

1. Find a change agent (how about you?)
2. Find a sensei (a teacher whose learning curve you can borrow)
3. Seize (or create) a crisis to motivate action across your firm

But then they have jumped to Step Five:

5. Pick something important and get started removing waste quickly, to surprise yourself with how much you can accomplish in a very short period.

Yet the overlooked Step Four is actually the most critical:

4. Map the entire value stream for all of your product families

Unfortunately, we find that many readers have ignored our advice to conduct this critical step before diving into the task of waste elimination. Instead in too many cases we find companies rushing headlong into massive muda elimination activities — kaizen offensives or continuous improvement blitzes. These well intentioned exercises fix one small part of the value stream for each product and value does flow more smoothly through that course of the stream. But then the value flow comes to a halt in the swamp of inventories and detours ahead of the next downstream step. The net result is no cost savings reaching the bottom line, no service and quality improvements for the customer, no benefits for the supplier, limited sustainability as the wasteful norms of the whole value stream close in around the island of pure value, and frustration all around.

Typically the kaizen offensive with its disappointing results becomes another abandoned program, soon to be followed by a “bottleneck elimination” offensive (based on the Theory of Constraints) or a Six Sigma initiative (aimed at the most visible quality problems facing a firm), or ... But these produce the same result: Isolated victories over muda, some of them quite dramatic, which fail to improve the whole.



Therefore, as the first “tool kit” project of the Lean Enterprise Institute, we felt an urgent need to provide lean thinkers the most important tool they will need to make sustainable progress in the war against muda: the value-stream map. In the pages ahead Mike Rother and John Shook explain how to create a map for each of your value streams and show how this map can teach you, your managers, engineers, production associates, schedulers, suppliers, and customers to see value, to differentiate value from waste, and to get rid of the waste.

Kaizen efforts, or any lean manufacturing technique, are most effective when applied strategically within the context of building a lean value stream. The value-stream map permits you to identify every process in the flow, pull them out from the background clutter of the organization, and build an entire value stream according to lean principles. It is a tool you should use every time you make changes within a value stream.

As in all of our tool kit projects, we have called on a team with a wide variety of practical and research experience. Mike Rother studies Toyota, has worked with many manufacturers to introduce lean production flows, and teaches at the University of Michigan. John Shook spent over ten years with the Toyota Motor Corporation, much of it teaching suppliers to *see*, and is now a Senior Advisor to the Lean Enterprise Institute. Together they possess a formidable body of knowledge and experience — a painfully constructed learning curve — which they are now sharing with you.

We hope readers of *Lean Thinking* and participants in the activities of the Lean Enterprise Institute will use the mapping tool immediately and widely. And we hope you will tell us how to improve it! Because our own march toward perfection never ends, we need to hear about your successes and, even more important, about the nature of your difficulties.

So again, “Just do it!” but now at the level of the value stream, product family by product family — beginning inside your company and then expanding beyond. Then tell us about your experience so we can share your achievements with the entire lean network.

Jim Womack & Dan Jones
Brookline, Massachusetts, USA
and Ross-on-Wye, Herefordshire, UK
June 2003

