

Foreword to the Expanded Second Edition

What a difference a decade makes. When Dan Jones and Jim Womack were preparing the first edition of this workbook in 2002, the world was in a mad rush to de-integrate its value streams by outsourcing and offshoring. Instead of analyzing and improving value streams in order to reduce total costs and provide better value for customers, managers were searching the globe for suppliers who would quote dramatically lower piece prices.

As it turned out, few managers knew what was actually going on along the lengthy multi-organization value streams they were creating. Indeed many probably did not care. The objective, after all, was rapid and dramatic price reductions from new and existing suppliers through a new negotiating tactic—using lowest global piece price as a hammer.

Today the situation is very different. Currencies have shifted, labor costs in many low-wage countries have risen steadily, suppliers in high-wage countries have declared bankruptcy, and the potential for squeezing further price reductions from suppliers is largely exhausted. What's more, high product quality and rapid response to changing customer demands have proved elusive along unwieldy, opaque supply streams. A decade of endless searching for new suppliers (and squeezing existing suppliers) resulted in massively complex supply streams that are hopelessly impossible to manage.

As a consequence, managers today show renewed enthusiasm to do what they should have done in the first place: understand and improve the underlying value-creating process that suppliers share with their customers. *Seeing the Whole Value Stream* provides a proven method for this analysis across organizations and geographies. It enables Lean Thinkers to move beyond value-stream analysis inside facilities—as explained in *Learning to See*—to extended value-stream analysis between facilities. More important, *Seeing the Whole Value Stream* explains how independent organizations—retailers, distributors, manufacturers, component suppliers, parts suppliers, raw material suppliers—can work together to jointly manage and improve their shared value streams in order to create more value for customers (who will get their products faster and more accurately) with less time, effort, cost, and chaos for every firm along the value stream. This is the revolution of lean thinking applied to extended value streams.

In the pages ahead the authors provide a method for a multi-function, multi-company collaborative team to understand the current state of a value stream for a product and to envision future states that progressively reduce waste, variation, and response time, resulting in lower cost and better value for the customer. However, it is important for

readers always to remember that value-stream analysis alone is not the point. It is only a means for those touching a value stream to learn to see together in order to jointly pursue the vital objective: steady, sustainable improvement that benefits everyone.

This is a crucial understanding that was lost by many over the past decade: the true nature of the lean enterprise as a holistic business system. Everything is connected—so the practice of point optimization invariably squeezes costs and waste in one location only to find that they pop up elsewhere in the system. Until we train our vision on the entire value chain, lean savings will be illusory and improvements unsustainable.

The power of lean is realized at the *gemba*—whether on the plant floor or at the extended value-stream level—through the way in which activities are connected. Nothing is independent. Standardized work, takt time, andon—all are tools and methods that link actions horizontally and vertically beyond one work station, enabling immediate detection and containment of abnormalities followed by quick corrective action. Similarly, the same functions of ensuring effective connectivity are performed at the extended value-stream level by such methods as lean information systems (the required information only, delivered to the right place at precisely the right time), frequent-delivery milk runs, or finished-goods supermarkets replenished via upstream pull. The precise application of these or similar connectivity devices is essential to sustainably improve the performance of a value stream.

Conversely, lack of careful attention to practical connectivity mechanisms, as well as overall configurations that shorten lead times and enhance flexibility of value streams, will destroy this key dynamic of a truly lean system: the ability to learn, to adapt. Break supply-chain management, as many have, into disconnected points of lowest piece-price locations or a set of black-box optimization algorithms and you lose the ability to build rational and flexible supply chains configured as living learning systems. Ultimately this challenges managers to deeply understand how their value streams currently work and to design improved value streams that are configured rationally and are manageable and adaptable to rapidly changing real-world conditions.

So, as organizations learn how to see and improve collaboratively using the method described in these pages, they can make the great leap from shared analysis of individual value streams to shared analysis of entire value-creating systems consisting of many parallel and crisscrossing streams. We believe that this leap toward a complete lean enterprise, aligning the energies of many independent but collaborative contributors, is the next frontier for Lean Thinkers.

New Perspectives on the Extended Value Stream

In the decade since the launch of the first edition, the authors and I have had many interactions with many teams learning to see their shared value streams. As a result of our value-streams walks and the questions raised, we have added five helpful essays to this expanded second edition:

- *Spreading value-stream thinking from manufacturers to final customers through service providers—extending the wiper example.* Value-stream analysis should never stop at the OEM factory—service industries need to extend application of the process all the way to the final customer. Dan Jones and his Lean Enterprise Academy colleague, David Brunt use their experience in auto services to map the flow of replacement parts from the manufacturer through the service network. This extends the value-stream analysis in the first edition—using the same example of a windshield wiper—through the auto service system to the end customer.
- *Applying extended value-stream thinking to retail—a look at the Tesco story.* Retailing is a sector that cries out for the application of lean thinking. Dan and David have drawn on their extensive experience in fast-moving consumer goods over the past 15 years—starting with Dan’s pioneering work with Tesco in the UK—to follow the path of an individual product through a complex retail channel from manufacturer to end customer. It turns out that since most of the activity in distribution and retailing involves managing information flows and inventories, the savings can be great and easy to obtain as unnecessary actions are simply eliminated and the flow of information and products is smoothed.
- *Learning to use value-stream thinking collaboratively with suppliers and customers.* Matthew Lovejoy, president of Acme Alliance, has contributed an essay on his experience as a second-tier supplier in convincing much larger partners to embrace collaborative thinking about their shared value stream. He shows how small organizations that work with giant customers and suppliers can use the power of value-stream thinking to move all of the firms along the stream in a new direction.
- *Product costing in value-stream analysis.* Jim Womack has provided an essay on adding realistic costing to value streams using Matthew Lovejoy’s example in which business customers were taught by their supplier to think in a new and more accurate way about total cost.

- *Seeing and configuring the global value stream.* In the final essay, Dan Jones elevates value-stream thinking to total-system thinking. He shows how a manufacturer can analyze all of the value streams in a complex supply network as it rethinks where to locate the many production activities involved. Since thinking and acting at the system level is the next frontier for lean thinkers in most organization, this example is a fitting end point for this expanded second edition.

As we launch the second edition of *Seeing the Whole Value Stream* in a new era when many old assumptions are being challenged, we know that Lean Thinkers will try many new experiments with shared analysis of their value streams. We hope that you will share the results of your experiments with the Lean Community. Send your feedback and insights to us at info@lean.org

John Shook
Chairman and CEO
Lean Enterprise Institute
Cambridge, MA 02142