



Lean Thinking: The Next 25 Years

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With a
New Foreword
and Afterword by
the Authors

The Story of Lean Production—
Toyota's Secret Weapon in the Global Car
Wars That Is Revolutionizing World Industry

THE
MACHINE
THAT
CHANGED
THE
WORLD

JAMES P. WOMACK,
DANIEL T. JONES,
and DANIEL ROOS

As It Happens...

- October 10: 25th anniversary of *The Machine That Changed the World*.
- Kick-off event in moving lean thinking outside the auto industry & outside Japan.
- So: What have we achieved in the first 25 years of spreading these ideas? (What success have we had with what Toyota calls yokoten?)

But First:

What Does “Lean” Mean?

- Creating more value with less: Time, human effort, capital, space, defects & rework, etc. – by removing waste.
- By focusing on the “work” to be done and creating a management system to enable doing the work in the best way.
- Judged by outputs, not by inputs.



Spread of Lean in 25 Years

- Non-auto manufacturing (Boeing, Genie)
- Process industries (Alcoa)
- Healthcare (Virginia Mason, Group Health, Seattle Children's)
- Services (Starbucks)
- Retail/E-tail and logistics (Amazon)
- And now... government (Washington leads!)

This Is Great!

- The great bulk of human activities designed to create value have been tackled by lean thinkers in the past 25 years.
- But human activities are still far from lean after 25 years of open-source knowledge.
- Why has yokoten been so hard?

(Please go to www.planet-lean.com to hear more of my answer than I can share today.)



What the World Heard

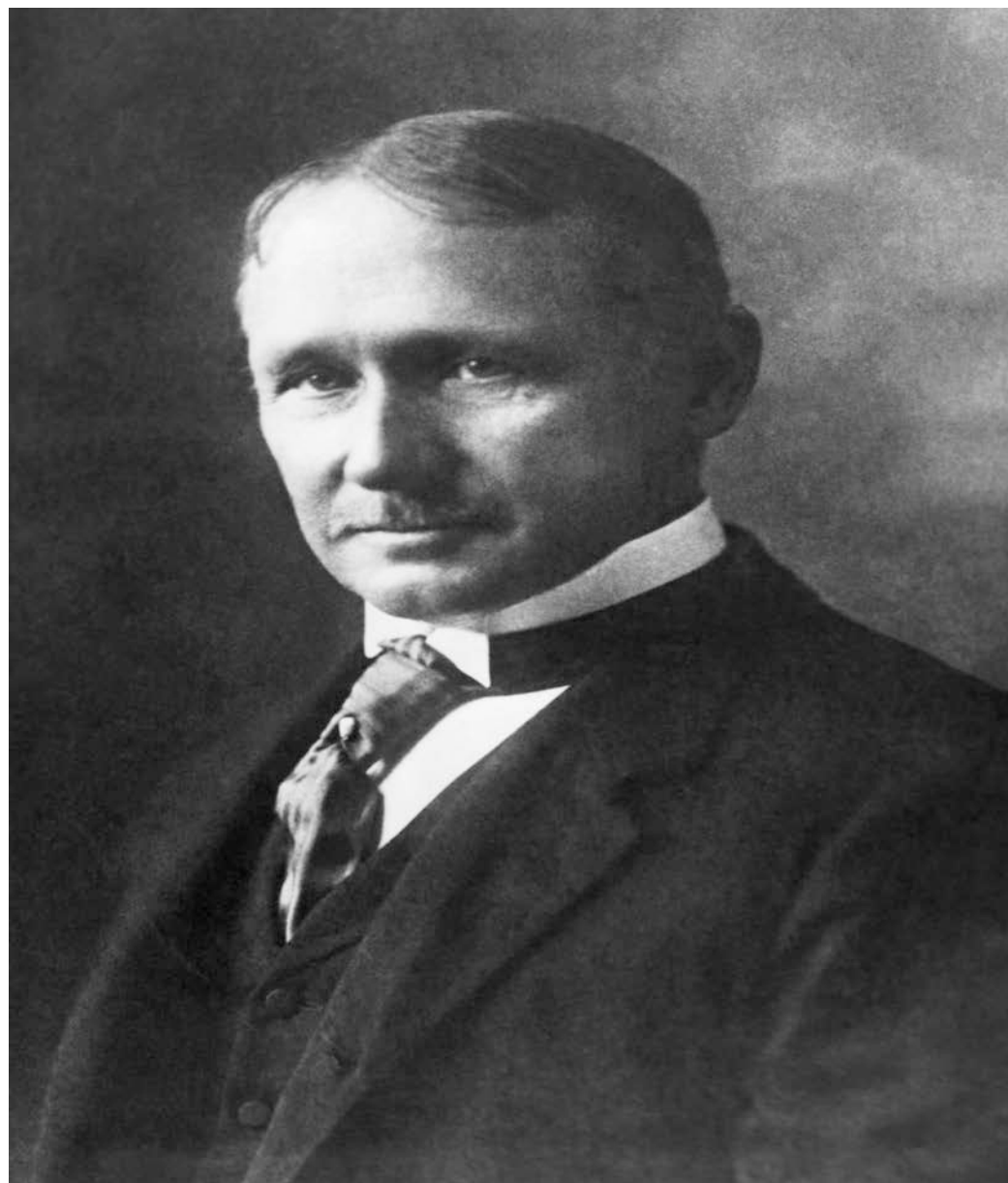
“Lean” is achieved through application of:

- Tools: Value stream maps, andon, poka yoke, concurrent engineering, target costing, active selling, A3, kaizen, etc.
- Programs: Done to value-creators by “lean” experts, internal or external.
- Cost (headcount) reduction: = “mean”.
- Regimentation: standard work, visual control & metrics, metrics, metrics.



Why Did They (You) Hear This?

- Because they (you) are Modern Managers.
- The children of Frederick Taylor and Alfred Sloan.



The Principles of Scientific Management

BY
FREDERICK WINSLOW TAYLOR, M.E., Sc.D.
PAST PRESIDENT OF THE AMERICAN SOCIETY OF
MECHANICAL ENGINEERS



HARPER & BROTHERS PUBLISHERS
NEW YORK AND LONDON
1919

What Managers Heard

- Improvement is done at points by experts with programs.
- Value creators need rewards and/or punishments to do better. (The beginning of the Modern Management concept of bonuses and pink slips based on metrics.)



MY YEARS WITH
GENERAL MOTORS

Alfred P. Sloan Jr.

A personal account by the former chief executive
of the world's largest manufacturing concern.

Edited by JOHN McDONALD with CATHARINE STEVENS

What Managers Heard

- Work design and improvements done by corporate staffs.
- Line managers set objectives for organizational units and enforce compliance. (“Make your numbers!”)
- Good performance encouraged by financial rewards and/or punishments.



What Managers Should Have Heard

- All value is the result of a horizontal value stream running across a vertical organization.
- Every value stream needs a responsible manager to determine the performance gap and to close the gap by means of experiments (PDCA in the context of A3.)
("Management by Science" rather than "Scientific Management".)

Something to Think About

- Is your biggest challenge on your lean journey your situation (government), your tools, or your management system?

An Experiment to Try

- Select a value stream.
- Make current state & performance gap visible.
- Identify the root cause & best countermeasure.
- Conduct experiments (PDCA.)
- Decide if the results are good enough & adjust.
- **Most important:** Ask how your management system supported this process and if progress can be sustained.
- “Lean” your management system as necessary!

My Hypothesis

- If you work through these steps for just one of your key value streams you will discover all of the changes you need to make in your management system to speed you on your lean journey to steadily improve all of your value streams!

Lean: The First 50 Years

- What I hope to find:
 - ✓ A lot more lean thinking.
 - ✓ But a world of lean acting -- through continuous experimentation to improve the work with the energetic support of lean managers at every level!