



**Leadership for lean culture transformation:**

*Introduction to breakout session*

**&**

*Five precepts for lean enterprise change*

Presented by

**George Roth**

Massachusetts Institute of Technology

April 2006

<b>3:00 PM</b>	<i>Introduction: Leadership in lean culture transformation and goals of session</i>	George Roth, MIT LAI, session chair
<b>3:10 PM</b>	<i>Progressing Toward a Shared Future Vision on the C-17 Globemaster III Program</i>	Cleaveran Law (Boeing) and Erika Jackson-Scott (ASC)
<b>3:35 PM</b>	<i>Leadership and the Dynamics of Inter-organizational Communication and Development</i>	Donald Greer and Laura Black (Greer Black Company) and Richard Adams (The Aerospace Corporation)
<b>4:00 PM</b>	<i>Developing a culture of network leaders</i>	Stephen Chun (former VP Manufacturing, VP Business Development, Cirrus Design Corporation)
<b>4:25 PM</b>	<i>Transcending Structured Supply Chain Boundaries Using Defined Leadership Practice</i>	Peter Weymouth (Time Wise Management Systems) and Gerri Redmond (Bath Iron Works)
<b>4:50 PM</b>	<i>Q&amp;A (can extend discussion time to 5:30)</i>	ALL presenters with audience

# Business Week Cover Story

## Nov. 17, 2003

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**THE MIT COMMISSION ON INDUSTRIAL PRODUCTIVITY**

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The McGraw-Hill Companies

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**THE MACHINE THAT CHANGED THE WORLD**

THE STORY OF LEAN PRODUCTION

HOW JAPAN'S SECRET WEAPON IN THE GLOBAL AUTO WARS WILL REVOLUTIONIZE WESTERN INDUSTRY



**THE MIT INTERNATIONAL MOTOR VEHICLE PROGRAM**

**S. P. WOMACK, DANIEL T. JONES, AND DANIEL ROOS**

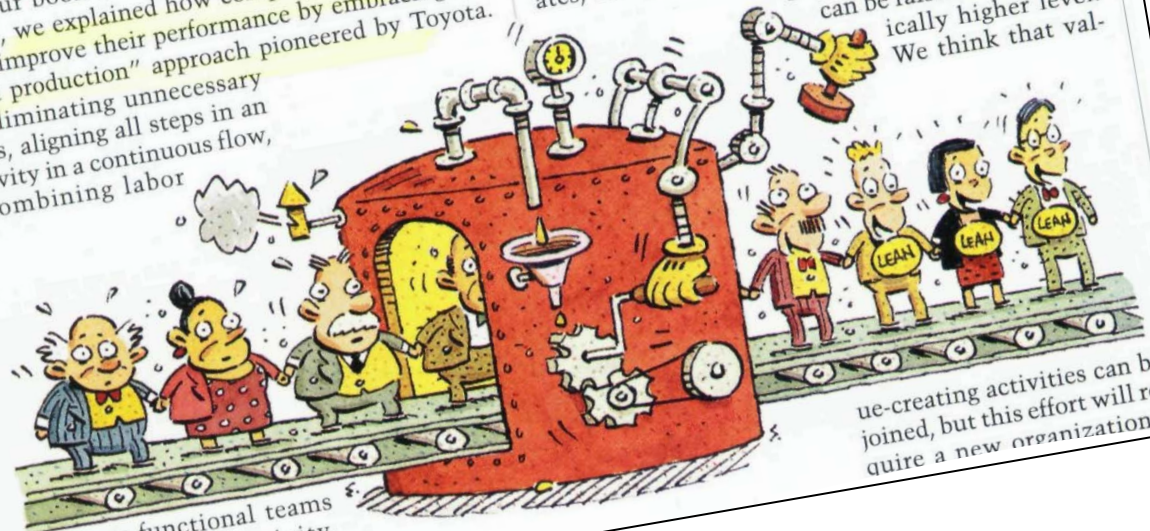
HBR  
MARCH-APRIL 1994

# From Lean Production to the Lean Enterprise

by James P. Womack and Daniel T. Jones

In our book *The Machine That Changed the World*, we explained how companies can dramatically improve their performance by embracing the "lean production" approach pioneered by Toyota. By eliminating unnecessary steps, aligning all steps in an activity in a continuous flow, recombining labor

activities is not the end of the road. If individual breakthroughs can be linked up and down the value chain to form a continuous *value stream* that creates, sells, and services a family of products, the performance of the whole can be raised to a dramatically higher level. We think that val-



into cross-functional teams dedicated to that activity, and continually striving for

ue-creating activities can be joined, but this effort will require a new organizational

# Fundamental Issues

The Toyota story has been intensively researched and painstakingly documented, yet what really happens inside the company remains a mystery. Here's new insight into the unspoken rules that give Toyota its competitive edge.

## Decoding the DNA of the Toyota Production System

by Steven Spear and H. Kent Bowen

**T**HE TOYOTA PRODUCTION SYSTEM HAS long been hailed as the source of Toyota's outstanding performance as a manufacturer. The system's distinctive practices – its kanban cards and quality circles, for instance – have been widely introduced elsewhere. Indeed, following their own internal efforts to benchmark the world's best manufacturing companies, GM, Ford, and Chrysler have independently created major initiatives to develop Toyota-like production systems. Companies that have tried to adopt the system can be found in fields as diverse as aerospace, consumer products, metals processing, and industrial products.

What's curious is that few manufacturers have managed to imitate Toyota successfully – even though the company has been extraordinarily open about its practices. Hundreds of thousands of executives from thousands of businesses have toured Toyota's plants in Japan and the United States. Frustrated by their inability to replicate Toyota's performance, many visitors assume that the secret of Toyota's success must lie in its cultural roots. But that's just not the case. Other Japanese companies, such as Nissan and Honda, have fallen short of Toyota's standards, and Toyota has successfully introduced its production system all around the world, including in North America, where the company is this year building over a million cars, minivans, and light trucks.

So why has it been so difficult to decode the Toyota Production System? The answer, we believe, is that observers confuse the tools and practices they see on their plant visits with the system itself. That makes it impossible for them to resolve an apparent paradox of the system – namely, that activities, connections, and production flows in a Toyota factory are rigidly scripted, yet at the same time Toyota's operations are enormously flexible and adaptable. Activities and processes are constantly being challenged and pushed to a higher level of performance, enabling the company to continually innovate and improve.

To understand Toyota's success, you have to unravel the paradox – you have to see that the rigid specification is the very thing that makes the flexibility and creativity possible. That's what we came to realize after an extensive, four-year study of the Toyota Production System in which we examined the inner workings of more than 40 plants in the United States, Europe, and Japan, some operating according to the system, some not. We studied both process and discrete manufacturers whose products ranged from prefabricated housing, auto parts and final auto assembly, cell phones, and computer printers to injection-molded plastics and aluminum

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... activities and processes are constantly being challenged and pushed to a higher level of performance, enabling the company to continually innovate and improve.

# “Lean” cultural assumptions: 4 Rules at Toyota

**Rule 1:** All work shall be highly specified as to content, sequence, timing and outcome

**Rule 2:** Every customer-supplier connection must be direct, and there must be an unambiguous yes-or-no way to send requests and receive responses.

**Rule 3:** The pathway for every product and service must be simple and direct

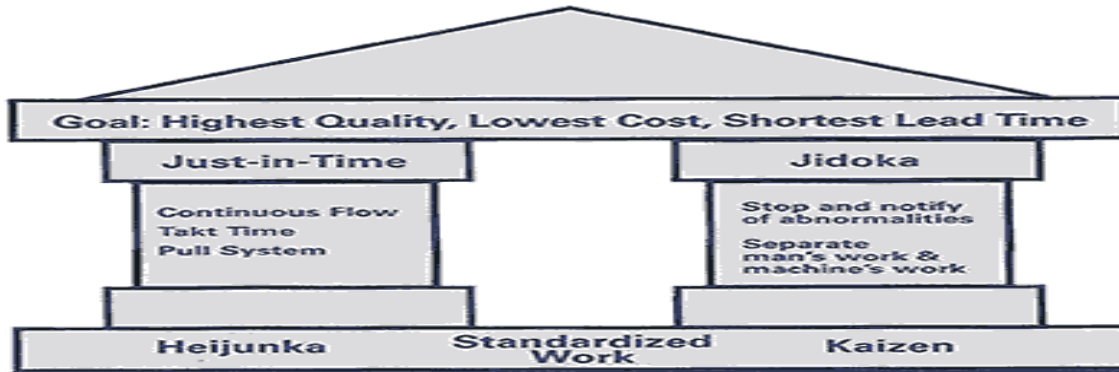
**Rule 4:** Any improvement must be made in accordance with the scientific method, under the guidance of a teacher, at the lowest possible level in the organization

# What is the “lean” culture?

A culture is a set of beliefs and values that defines how the world is and our place in it, and determines their behavior.



...but how the culture of people and their actions and behavior.



The Toyota story has been intensively researched and painstakingly documented, yet what really happens inside the company remains a mystery. Here's new insight into the unspoken rules that give Toyota its competitive edge.

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Culture that that

to be sure

# Understanding Lean+Enterprise+Change

*(understanding ← **description**) → theory → testing → prediction*

## What data can we draw upon?

### • Books/documentated studies

- Toyota and “lean” – i.e. The Machine that Changed the World, The Toyota Way, Remade in America, Collaborative Advantage
- Management/leadership – i.e. Built to Last, Good to Great, Execution, The Leadership Engine
- Corporate/leadership – i.e. Jack, Who Says Elephants Can't Dance?
- Strategy/Change – i.e. The Innovating Organization, Leading Change, Breaking the Code of Change, The Dance of Change

lean+change

change+enterprise

### • New case studies that develop and test concepts – successful “lean” change

lean+  
enterprise+change

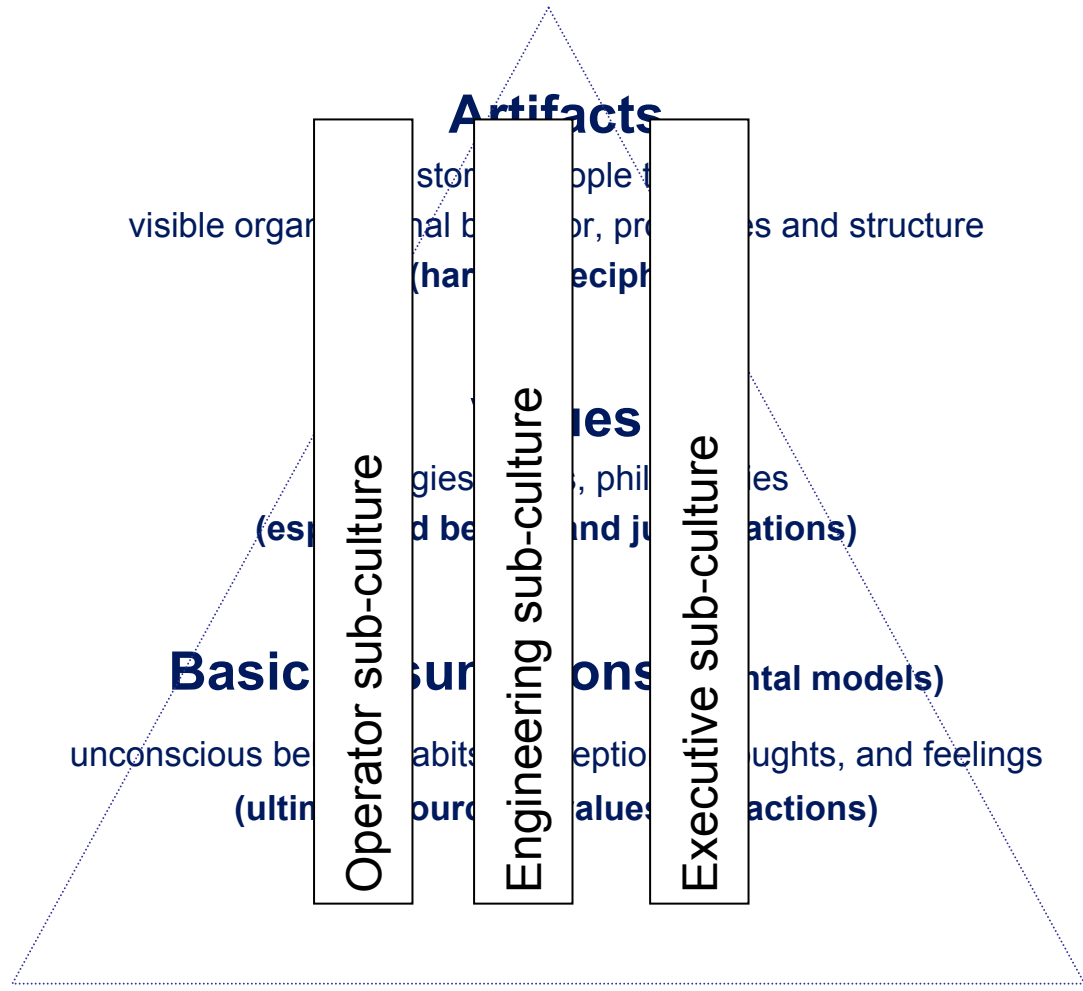


## What does it take?

- **Rethinking organizational boundaries**
  - View own organization with suppliers and customers as a contiguous value stream
  - *extend the domain to include organization's environment*
- **Installing sets of organizational innovations**
  - Complementarities of practices
  - *extend the scope to include sets of changes as coherent programs*
- **Pushing and pulling change**
  - Set in place the structure and process that enables virtuous learning and change
  - *extend the tools to integrate the two divergent change approaches*
- **Seeking growth opportunities**
  - Project positive vision for continual renewal
  - *extend the strategy to build in growth and development*
- **Distributing leadership practices**
  - Recognizing interdependent roles in a system of leadership
  - *extend the leadership to all levels of the enterprise*

# Organizational Culture Model

"occupational communities" generate cultures that cut across organizations



## Approaches to Managing Organizational Effectiveness

Approach	Description	Goals to Set to Measure Effectiveness
External resource approach [Executive culture]	<p>evaluates the</p> <p><b>Strategy, Analysis &amp; Planning</b></p> <p>control scarce and valued skills and resources</p>	<ul style="list-style-type: none"> <li>• Lower cost</li> <li>• Increase n</li> <li>• Increase stock price</li> <li>• Gain support of state government or env</li> </ul>
Internal systems approach [Operator culture]	<p>Evaluates the</p> <p><b>Innovation, learning and OD</b></p> <p>quickly and responsively</p>	<ul style="list-style-type: none"> <li>• Cut decision-making</li> <li>• Reduce conflict</li> <li>• Reduce time to ma</li> </ul>
Technical approach [Engineering culture]	<p>Evaluates the</p> <p><b>Lean, 6σ, re-engineering &amp; CPI</b></p> <p>resources into goods and services efficiently</p>	<ul style="list-style-type: none"> <li>• Reduce</li> <li>• Improve custom</li> <li>• Reduce delivery tim</li> </ul>

**Network leadership – crossing occupational communities ensuring alignment without hierarchical authority**

from Organizational Theory by Gareth Jones, 1995

***Progressing Toward a Shared Future  
Vision on the C-17 Globemaster III  
Program***

Cleaveran Law (Boeing) and Erika Jackson-Scott (ASC)

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***Q&A (can extend discussion time to 5:30)***



# How will we learn across these presentations?

## 4 Questions → compare and contrast:

<b>Presentation</b>  <b>4 Questions</b>	<b>Progressing Toward a Shared Future Vision on the C-17 Globemaster III Program</b>	<b>Leadership and the Dynamics of Inter- organizational Communication and Development</b>	<b>Developing a culture of network leaders</b>	<b>Transcending Structured Supply Chain Boundaries Using Defined Leadership Practice</b>
1) What did leaders initially do?				
2) What did leaders do differently?				
3) What was expected when these changes were made?				
4) Specific implications of "lean" for leadership?				