#### UNIVERSITY of WASHINGTON

Total Talent Management

# Introduction to Lean



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## **Understanding Lean**

#### **About Lean**

"Lean" means continuously improving towards the ideal and achieving the shortest possible cycle time through the tireless reduction of waste.

- It is focused on eliminating waste in all processes
- It is about expanding capacity by reducing costs and shortening cycle times
- It is about understanding what is important to the customer
- It is not about eliminating people



- Reduced inventory
- Reduced floor space
- Quicker response times and shorter lead times
- Decreased defects, rework, scrap
- Increased overall productivity

### **Recommended Activity**

Consider doing the following activity alone, or with your team.

Estimated Time	10 minutes
<b>Topic Objective</b>	To understand what is meant by the term "lean".
Topic Summary	<ul> <li>"Lean" means continuously improving towards the ideal and achieving the shortest possible cycle time through the tireless reduction of waste.</li> <li>It is focused on eliminating waste in all processes</li> <li>It is about expanding capacity by reducing costs and shortening cycle times</li> </ul>



	It is about understanding what is important to the customer (e.g. value)
	It is not about eliminating people
	Examples of Lean Projects  • Reduced inventory
	Reduced floor space
	Quicker response times and shorter lead times
	Decreased defects, rework, scrap
	Increased overall productivity
Recommended Activity	Have group share examples of lean activities in their organizations.
Delivery Tips	In Lean, Value Added means: <ul> <li>Customers are willing to pay for it</li> <li>It physically changes the product</li> <li>It's done right the first time</li> </ul> <li>In Lean, Non Value-Added means:         <ul> <li>It is not essential to produce output</li> </ul> </li> <li>Does not add value to the output</li> <li>This Includes:         <ul> <li>Defects, errors, omission</li> </ul> </li> <li>Preparations/setup, control/inspection</li> <li>Over-production, processing, inventory</li> <li>Transporting, motion, waiting, delays</li>
Review Questions	What are examples of Lean Projects?

#### **History Behind Lean**

The phrase "lean manufacturing" was coined in the 1980's and has its roots in the Toyota Production System.

Most of the basic goals of lean manufacturing are common sense, and some fundamental thoughts have been traced back to the writings of Benjamin Franklin.



Henry Ford cited Franklin as a major influence on his lean business practices, which included Just-in-time manufacturing. The founders of Toyota designed a process with inspiration from Henry Ford and their visits to the United States to observe the assembly line and mass production that had made Ford rich. The process is called the Toyota Production System, and is the fundamental principle of lean manufacturing.

Two books have since shaped the ideologies of Lean: "The machine that changed the world" (1990) and "Lean Thinking" (1996).

#### **Toyota Production Systems**

The Toyota Production System (TPS) is a mindset and management system that embraces continuous improvement. TPS organizes manufacturing and logistics, including interaction with suppliers and customers. Originally called "Just in Time Production," it builds on the approach created by the founders of Toyota.

TPS revolves around 5 simple steps:

- Define Value of your product > Make it according to Customer needs and Customer Defined
- 2. Identify Value Stream of your product > Follow the product and identify unnecessary actions
- 3. Study the Flow your product > Eliminate All Waste
- 4. Make only what the customer orders > Produce Just In Time for Demand
- 5. Strive for Perfection > Continuous Improvement. Good enough is never enough.

#### **The Toyota Precepts**

The five methods defined by Toyota contain some basic principles:

**1. CHALLENGE:** Form a long-term vision, meeting challenge with courage and creativity to realize your dreams.



- Create Value through Manufacturing and Delivery of Products and Services
- Nurture a spirit of Challenge
- Always have a Long Range Perspective
- Thorough Consideration in Decision Making
- **2. KAIZEN:** Improve your business operations continuously, always driving for innovation and evolution.
  - Have a Kaizen Mind and Innovative Thinking (See later this module)
  - Build Lean Systems and Structure
  - Promote Organizational Thinking
- **3. GENCHI GENBUTSU (Go and see):** Go to the source to find the facts to make correct decisions, build consensus, and achieve goals at our best speed.
  - Genchi Genbutsu (Go and See)
  - Lead with Consensus Building
  - Create Commitment to Achievement
- **4. RESPECT:** Respect others, make every effort to understand each other, take responsibility and do your best to build mutual trust.
  - Respect for Stakeholders and community
  - Develop Mutual Trust and Mutual Responsibility
  - Be Sincere, transparent and open in all Communication
- **5. TEAMWORK:** Stimulate personal and professional growth, share the opportunities of development, and maximize individual and team performance.
  - Have Commitment to Education and Development
  - Have Respect for the Individual; Realizing Consolidated Power as a Team

## **Recommended Activity**

Consider doing the following activity alone, or with your team.

Estimated Time	10 minutes
<b>Topic Objective</b>	To understand the five precepts of TPS.
Topic Summary	According to Toyota, consistency is central to the success of TPS. Consistency comes from Operational excellence. The operational excellence is based on the quality improvement tools and methods in the TPS:  1. Challenge (Challenge existing methods)  2. Kaizen (Improve what's not working)  3. Genchi Genbutsu (go and see for yourself)  4. Respect (Towards employees, Customers, Suppliers, Community)  5. Teamwork (Stand together undivided)
Materials Required	Handout: My Improvement Plan (MIP)
Planning Checklist	Print out one copy of MIP per participant
Recommended Activity	Have participants review their MIP and fill out the information based on the 5 precepts.
Delivery Tips	If you handed out the MIP at the beginning of the workshop, this activity should go smoothly.
<b>Review Questions</b>	Does your MIP pass the check point questions?

## **My Improvement Plan (MIP)**

• **CHALLENGE:** What is the existing method or work process I want to improve? **IMPROVE:** What is not working in the existing method or process? Describe flaws and quantify if possible. How will the methods and process work with your proposed change? **GENCHI:** What observations have you done by going to the source of the problem in your project? **RESPECT:** List who is affected by the change you are proposing. Consider how they could be involved. **TEAM WORK:** Review your list of individuals above. Who can you work with to implement the change swiftly?

# **Further Study**

To learn more about appreciative inquiry, consider our in-person offerings such as, <u>Building a Positive Work Culture</u>, <u>Courageous Collaboration</u>, and <u>Increasing Your Influence</u>. Further trainings to develop Organizational Excellence will be shared here in the Leadership Café, on all of the competencies found in our <u>Competency Guide</u>. Subscribe now to <u>The Learning Lab</u>, an online platform featuring Business Skills & Productivity, Leadership Development, and Office 365, powered by Skillsoft Percipio and customized for UW learners.