

Just In Time Inventory Management

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Today's Objective

- Understand what JIT inventory management means
- Learn the underlying philosophies and concepts that define the lean enterprise
- See how to start the journey
- Discover a model for reaching “True North”

Summary

- JIT is a strategy that you would deploy if you think Lean
- Lean is a set of philosophies which change the way you think about how to run your business
- It's difficult to do JIT if you do not think Lean
- It's difficult to think Lean because it's difficult to live Lean
- We can sometimes tell what people think by watching what they do



Just In Time Production

- Introduced in 1950's by Toyota
- A response to conditions
 - High variety and low volume markets
 - Rapid technological changes
 - Limited availability of natural resources
 - Including space and capital
 - Inaccurate demand forecasts



Rules of JIT

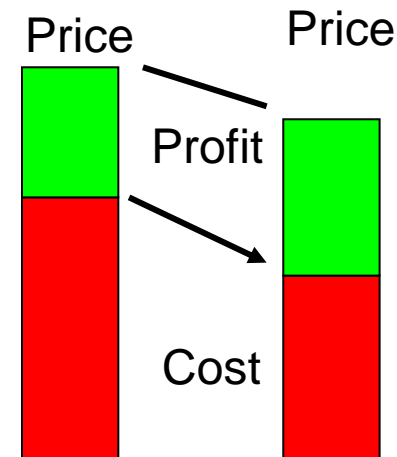
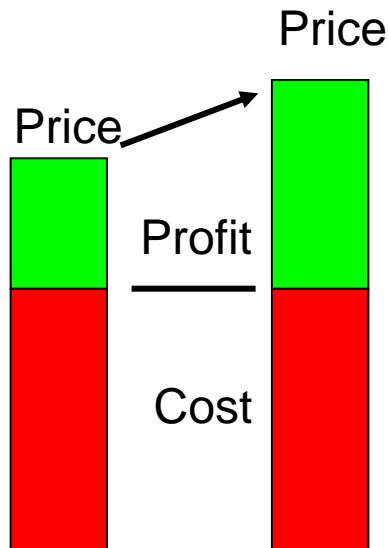
- Produce based on pull, not prediction
- Produce at the same pace every day
- Control flow or inventory between processes
- Design the process around flexible people and simple machines



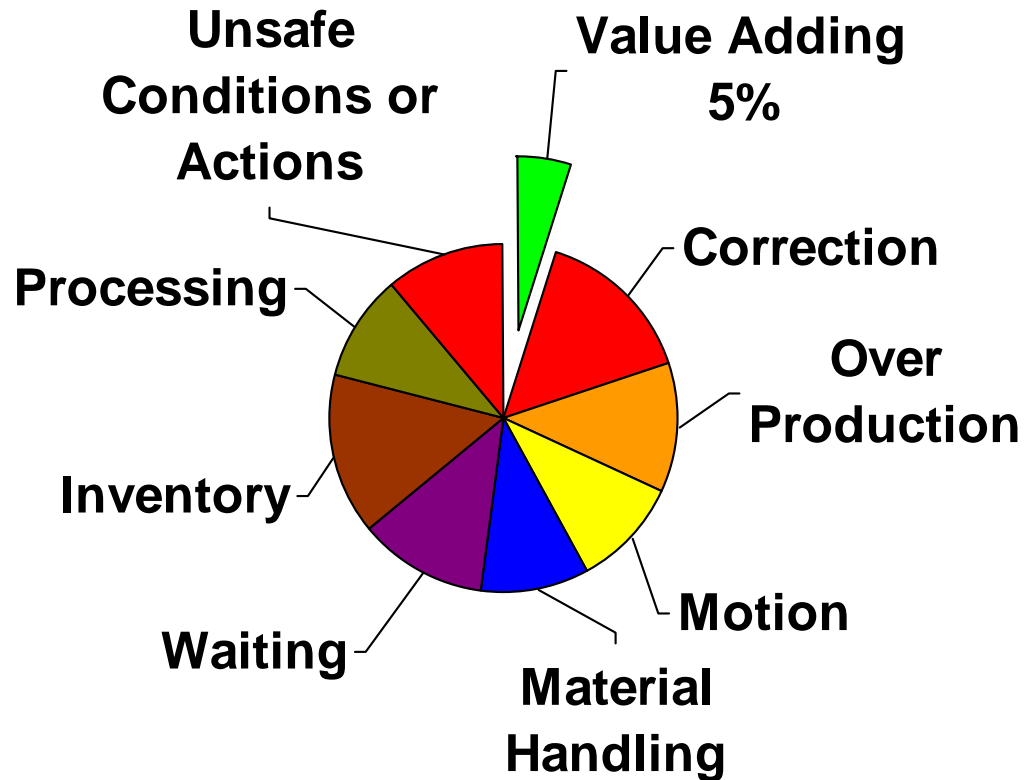


The Basis for Lean

- Traditional thinking
 - To improve profit, raise price
- Lean thinking
 - To improve profit, lower cost



Costs Result from Activities



The Toyota Way Principles

- Philosophy
- Process
- People and Partners
- Problem Solving

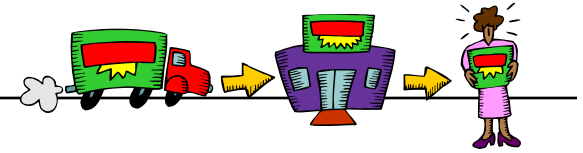


Philosophy as the Foundation

- Management decisions based on long-term philosophy, even at the expense of short-term financial goals



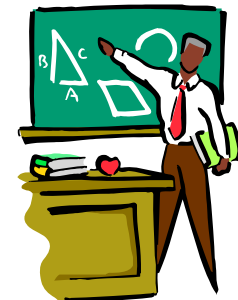
The Right Process Will Produce the Right Results



- Continuous flow used to show problems
- Pull systems help to avoid overproduction
- Level the workload
- Get quality right the first time by stopping to fix problems
- Standardize tasks and processes
- Use visual controls to show problems
- Use only reliable, thoroughly tested technology that serves your people

Add Value to the Organization By Developing Your People and Partners

- Grow leaders who thoroughly understand the work, live the philosophy, and teach it to others
- Develop exceptional people and teams who follow your company's philosophy
- Respect your extended network of partners and suppliers by challenging them and helping them improve

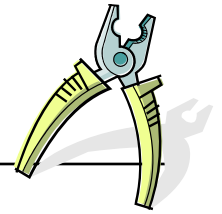


Continuously Solving Root Problems Drives Organizational Learning

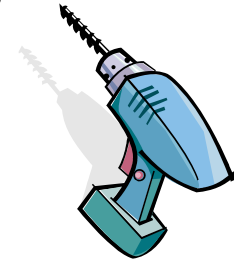
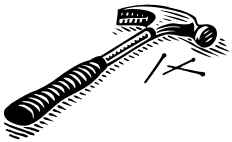
- Go and see for yourself to thoroughly understand the situation
- Make decisions slowly, by consensus, thoroughly considering all options; implement decisions rapidly
- Become a learning organization through relentless reflection and continuous improvement



Tools to Help in the Transformation



- How do we make this our way of life instead of a project?
 - Compare to a Lean Model
- Where is our waste?
 - Map the Value Stream
- How do we get rid of our waste?
 - Design for everything
 - Error proof processes when you cannot design out problems
 - Create a visual workplace using 5S
 - Create simple flow with cells
 - Reduce set up costs to reduce batch sizes
 - Implement autonomous maintenance
 - Six Sigma
- How quickly do we get rid of waste?
 - Lean Events
 - Kaizen



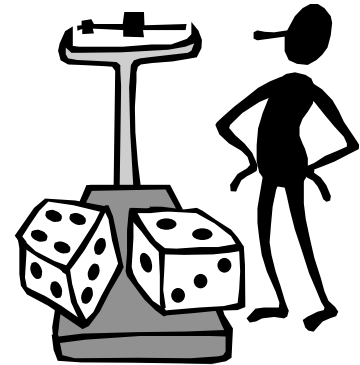
The DNA of Toyota

- All work is standardized, including content, sequence, timing and outcome
- Connections with clear YES/NO signals link directly every customer and supplier
- Every product and service travels in a single, simple and direct flow path
- All employees improve their own work processes using scientific methods
- Integrated failure tests automatically signal deviations for every activity and flow path



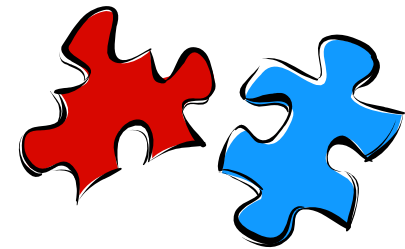
Lean Metrics

- Ancient financial systems, which reward overproduction, must be replaced with accurate ways to identify and account for true costs
 - Activity based costing
 - Life cycle costing
 - Floor space required
 - Inventory turns
 - Support personnel efficiency
 - Ability to hit a target
 - Cash to cash time
- Overhead absorption and a singular focus on direct labor efficiency cannot coexist with Lean



How To Start The Journey (aka “Little Lean”)

- Identify and eliminate waste everywhere
 - Do not just substitute one form of waste with another
- DFX
- Error proofing
- Visual management
 - Using 5S principles



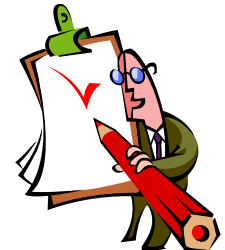
A Lean Standard (aka “Big Lean”)



- SAE J4000
 - 52 validated best practices
 - Provides an assessment tool
 - Defines an implementation sequence
- Shingo Prize
 - Model for business that embraces Lean and Waste Elimination
 - Criteria more open for interpretation
 - Criteria broader than SAE J4000
 - Called the “Nobel Prize for Manufacturing”
 - Business Week

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References

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