

Northeast Supply Chain Conference

Key Steps in Implementing a Kaizen Event

Tom McBride

Partners for Creative Solutions, Inc.

(508) 845-1546

What We Will Cover

- **What are kaizen events?**
- **Choosing the best projects**
- **Selecting a “pilot” event**
- **Team members and their roles**
- **How to prepare for a kaizen event**
- **10 steps for conducting the event**
- **Finding the time for kaizen events**

About Kaizen

- **Kaizen is continuous improvement**
- **Kaizen is employee involvement**
- **Kaizen requires a cultural change**
- **According to the originators at Toyota**
 - 80% of the journey involves learning and living the new philosophy
 - 20% involves physical changes

A Kaizen Event

- **Is a highly focused “assault” on an area or process to achieve rapid improvement**
- **Uses a cross-functional team with process insiders and outsiders**
- **Achieves as many improvements as possible during a typical 3-5 day event**
- **Augments, but does not replace, continuous improvement**

Some Paths to Improvement

- Individual efforts



- Part-time groups or teams



- Kaizen events



When Are Kaizen Events Appropriate?

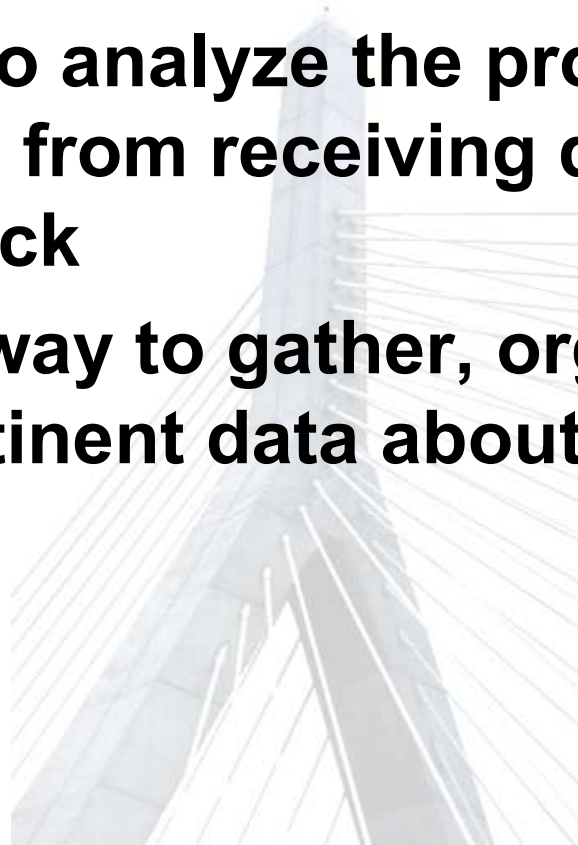
- **Need for solution is urgent**
 - Competitive crisis
 - High customer dissatisfaction
- **Big impact projects**
 - Significant impact on sales or profits
 - Bottlenecks
- **Cannot tolerate prolonged disruption**

Selecting Candidates for Kaizen Events

- **Factors to consider**
 - Strategic goals of the organization
 - Current performance of process, department, machine (good time for Value Stream Mapping)
 - Feasibility (difficulty, resources required, probability of success)
- **Selecting the top few candidates**
 - Decision matrix (sample available on request)

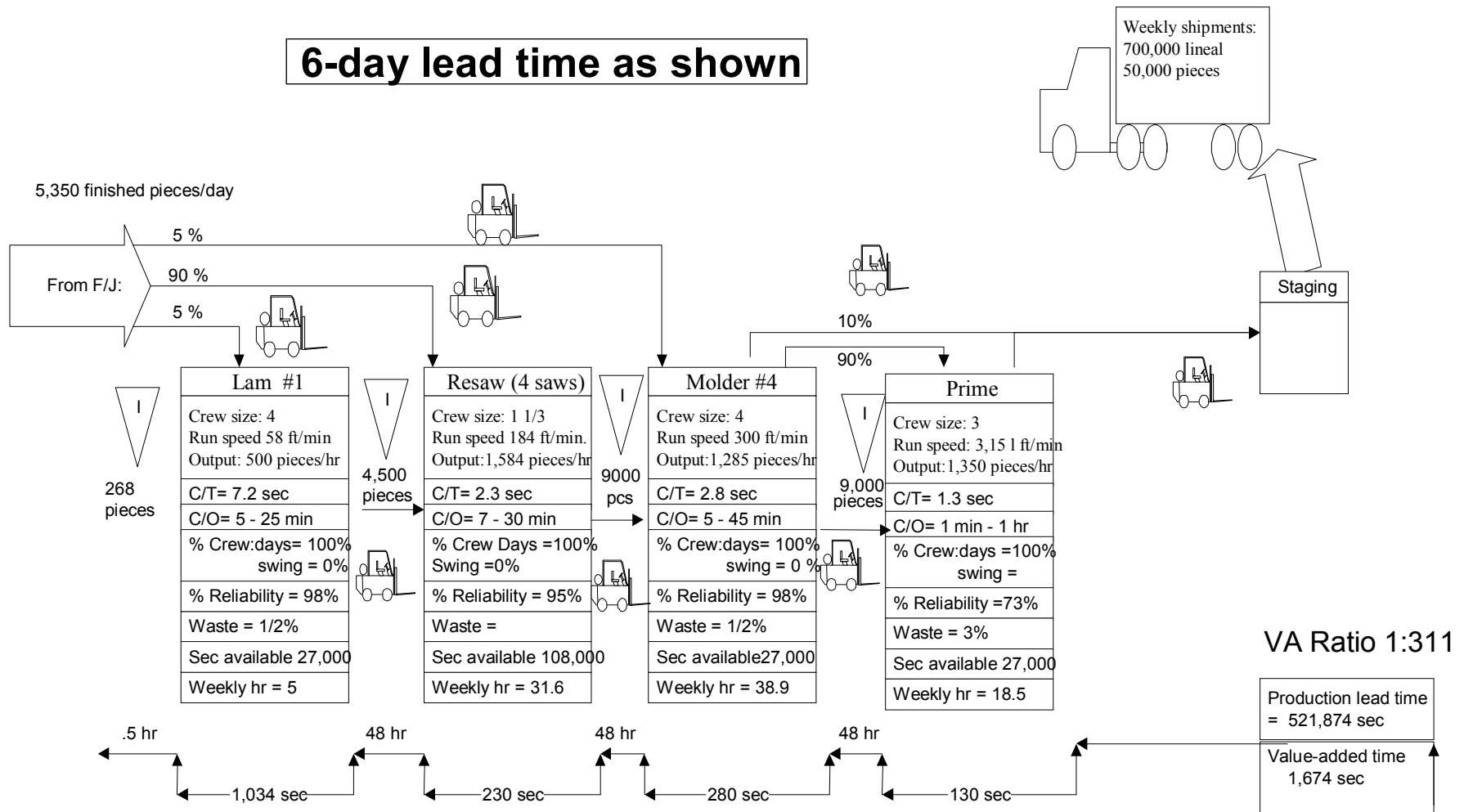
Value Stream Map

- **Technique to analyze the production of a product line from receiving dock to shipping dock**
- **Structured way to gather, organize, and present pertinent data about the existing process**



Value Stream Map - Current State

6-day lead time as shown



Selecting the “Pilot” Event

- **High likelihood of success**
- **Results will be highly visible**
- **Makes a significant impact to the organization**
- **Solves operational problems, not management issues**
- **Area has a stable current process**

Preparing For the Event

- **Select team sponsor**
- **Select team leader**
- **Choose the facilitator**
- **Choose team participants**
- **Develop the team charter**
- **Gather data prior to the event**
- **Prepare the organization**

Team Sponsor

- High level *champion* of the cause
- Upper management *advisor* to the team
- Breaks through *road blocks*
- Arranges *support* for the team during the event
- Ensures *coverage* so that team members are not interrupted during the event

Team Leader

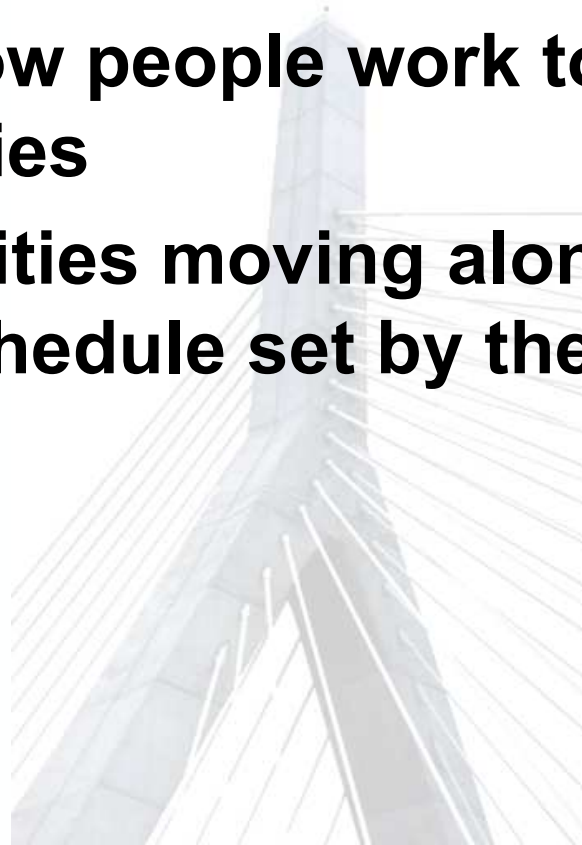
- **Determines session objectives and process to be followed**
- **Meets with facilitator to review session objectives and process**
- **Sends agenda to team members in advance**
- **Is the leader, not the boss**

Traits of Good Team Leaders

- Previous success as a leader (church, scouts, military, civic, etc.)
- Has experienced a kaizen event
- Good knowledge of lean manufacturing (if production area event)
- Good knowledge of waste elimination techniques
- Not dictatorial - understands participative management
- Comfortable working in the target area
- Good people skills

Team Facilitator

- **Manages how people work together during team activities**
- **Keeps activities moving along the process and time schedule set by the team leader**



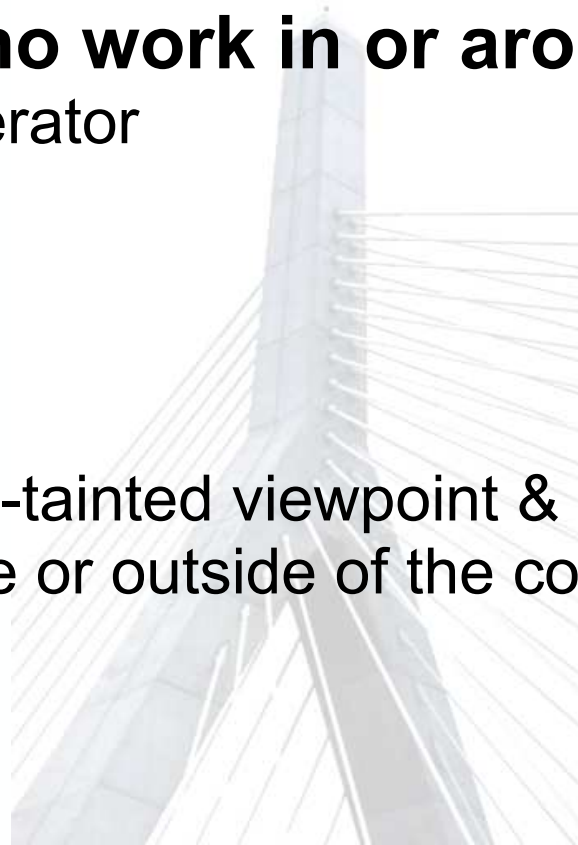
Recorder

- **Records important results, actions, & decisions**
- **Promptly distributes minutes to participants**
- **Usually a team member**



Identify Other Members

- **Insiders – who work in or around the process**
 - Machine Operator
 - Buyer
 - Assembler
 - Planner
- **Outsiders**
 - Provides non-tainted viewpoint & new ideas
 - Can be inside or outside of the company



Traits of Good Participants

- **Understands the target area**
 - May work in area
 - Can learn the area
- **Open to doing things differently**
- **Will get involved**
- **Good communicators**
- **Brings knowledge (technical or procedural) that will help the team succeed**

The Kaizen Team Charter

- **Team Charter clearly identifies rules of operation**
 - Objectives
 - Scope
 - Resources available (budget, assistance, etc.)
 - Authority of the team (and it's limits)
 - Deliverables
 - Schedule
 - Code of Conduct (developed at kick-off meeting)
- **Created by leader and approved by team**

Before 1st Team Meeting

- **Gather detailed information in advance**
 - Process steps
 - WIP levels
 - Capacities/process times
 - What is produced and how much?
 - Cycle and queue times
 - Batch sizes & changeover frequency
 - Defect Rates
 - Up-time
 - Number of operators
- **Photos and layout of target area**

Rolling Out the Kaizen Event

- **Preparing the Organization - considerations**
 - ✓ Developing a sense of trust across the organization
 - ✓ Generating enthusiasm about the event
 - ✓ Demonstration of commitment by management
 - ✓ Publicizing the event - before and after
 - ✓ Getting the union to cooperate
- **Team Kickoff (includes sponsors)**
 - ✓ Review draft charter, modify, approve
 - ✓ Develop *code of conduct* (agreement on rules)
 - ✓ Discuss training and event logistics, etc.

Setting the Proper Environment for the Event

- **Logistics**
 - Location – off-site, on-site, or in work area
 - Food – feed the team – feed everyone?
 - Tools, supplies
- **Work hours (in advance)**
- **Handling interruptions (coverage)**
- **Support from rest of organization (sponsor's responsibility)**
- **Energy breaks**

Kaizen Event Sequence (Start to Finish)

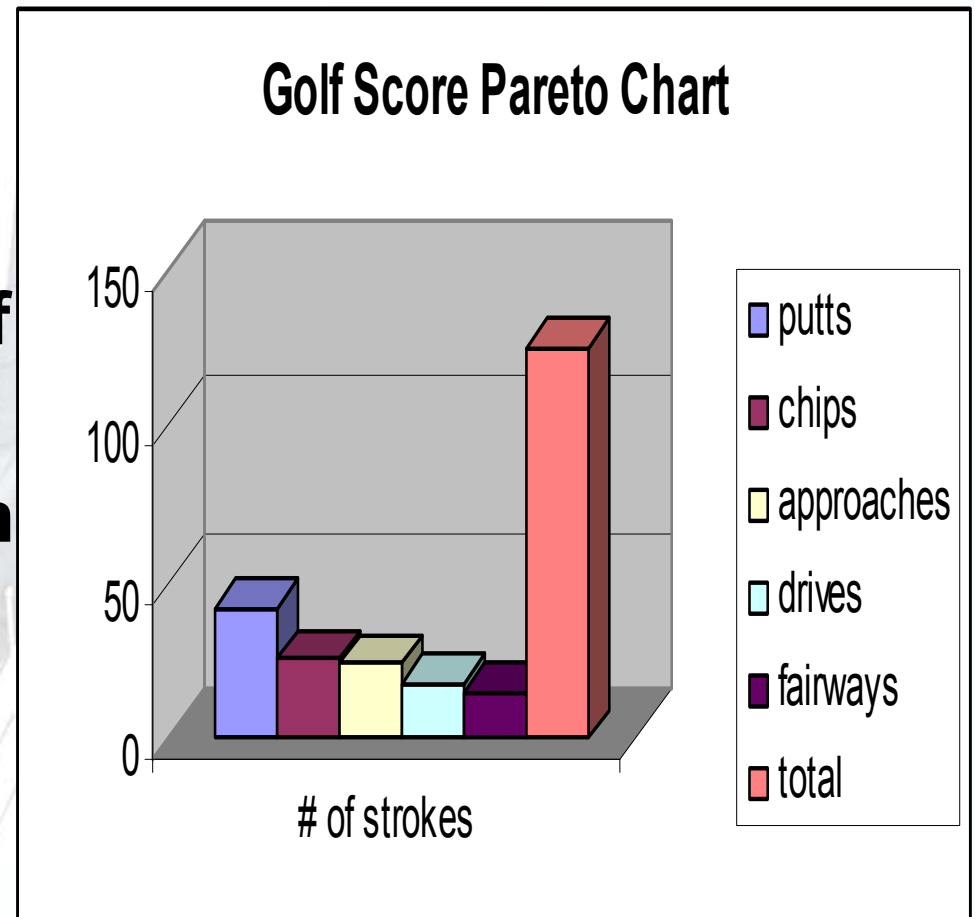
1. Training & kick-off activities
 - A. Lean manufacturing (if in production area)
 - B. Tools of continuous improvement
(pareto, fishbone, run charts, 5-whys,
process analysis, etc.)

2. Analysis of current “state”
3. Select areas of focus
4. Create possible solutions
5. Select solutions

*Creates a Plan That
has Team Buy-in*

Useful Tool - *Pareto Analysis*

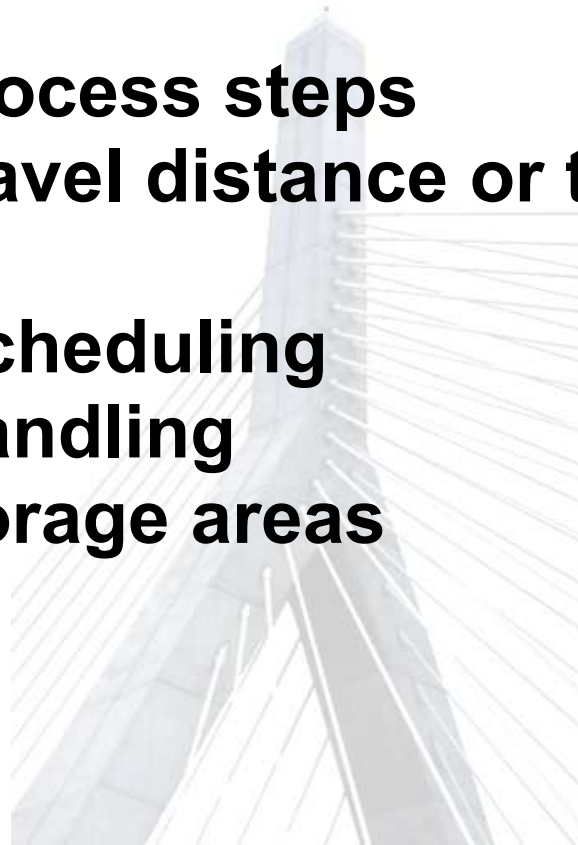
- Helps visualize the larger sources of waste
- Visual application of the *80-20 rule*
- Helps team focus on those causes that have the greatest impact if solved



Analyzing the Current State-

Some *Wastes* to Look For

- Too many process steps
- Excessive travel distance or time
- Waiting
- Ineffective scheduling
- Excessive handling
- Inventory storage areas
- Excess WIP



Analyzing the Current State-

Some *Wastes* to Look For

- Bottlenecks
- Defects
- Poor organization of work area (5S needed)
- Large batch sizes and long setup times
- Disjointed process steps (need *flow*)
- Inefficient processes
- Opportunities to apply technology to improve efficiency

Creating Solutions

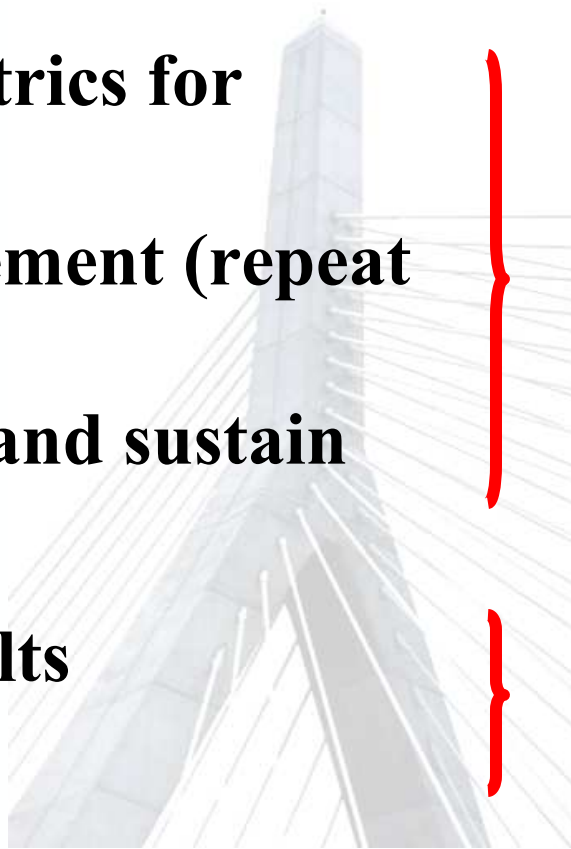
- **Open your mind to new possibilities**
- **Don't be bound by what is done today**
 - Do you need it?
 - Should it be outsourced?
 - Build it a different way
 - Design it differently
- **Don't be discouraged by prior failures**
 - We tried to get approval for that before!
 - That'll never happen!

Visualize the Perfect Solution



- What would be the ideal situation?
- What if all waste were eliminated?
- Elevates the target for generating solutions

Kaizen Event Sequence

- 
6. Establish metrics for success
 7. Plan & implement (repeat if necessary)
 8. Standardize and sustain

Gets the job done

9. Report results
10. Celebrate

Paves the way for future events

Finding Time for Kaizen Events

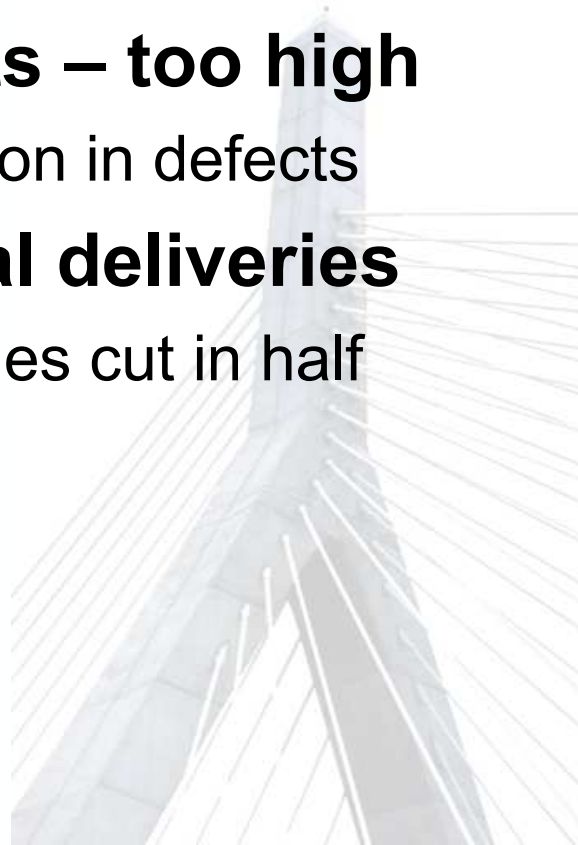
- **Work overtime to recover lost production**
- **Reroute production to other area**
- **Perform the event over a weekend**
- **Run the event early in a production period**
- **Finish “period” production early and then run the event**
- **Take advantage of a “slow” time**
- **Outsource some production to “buy” time**
- **Run the event concurrent with production**

Successful Uses of the Process

- **Sales - quotes take too long**
 - Reduced quote cycle by >40%
 - Improved on-time delivery of quotes from “?” to >80 %
- **Engineering – a bottleneck**
 - Improved on-time releases of engineering from <<50% to >80%
- **Assembly – high cost**
 - 40 % reduction in manual assembly costs

Successful Uses of the Process

- **Quality costs – too high**
 - 50% reduction in defects
- **Late material deliveries**
 - Late deliveries cut in half



Summary

- **What are kaizen events?**
- **Choosing the best projects**
- **Selecting a “pilot” event**
- **Team members and their roles**
- **How to prepare for a kaizen event**
- **10 steps for conducting the event**
- **Finding the time for Kaizen Events**