



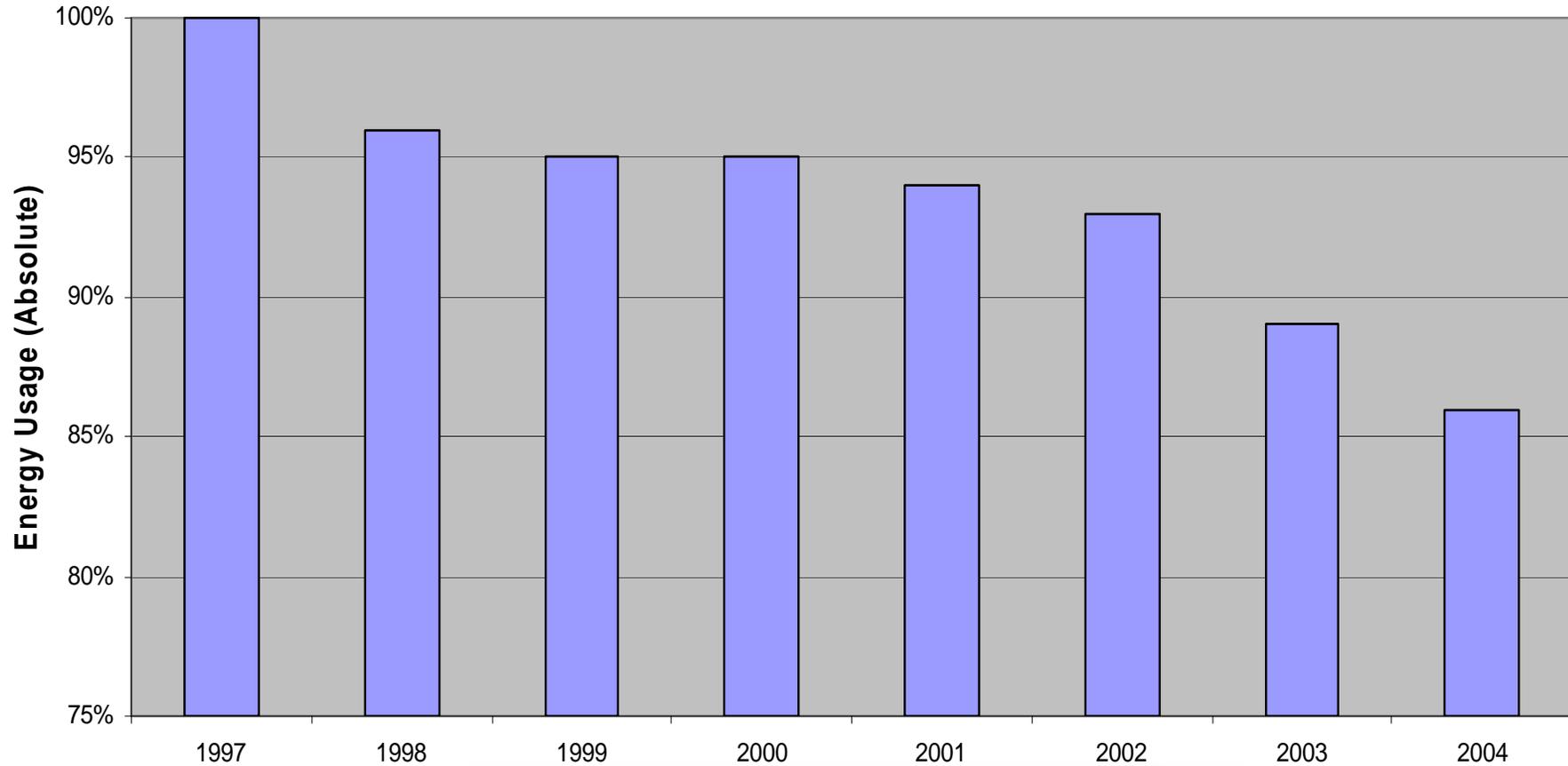
*Essential Elements For Energy
Management Success*

George E. Weed P.E.
Eastman Kodak Company
October 26, 2005
ENERGY STAR Leadership Conference

About Kodak

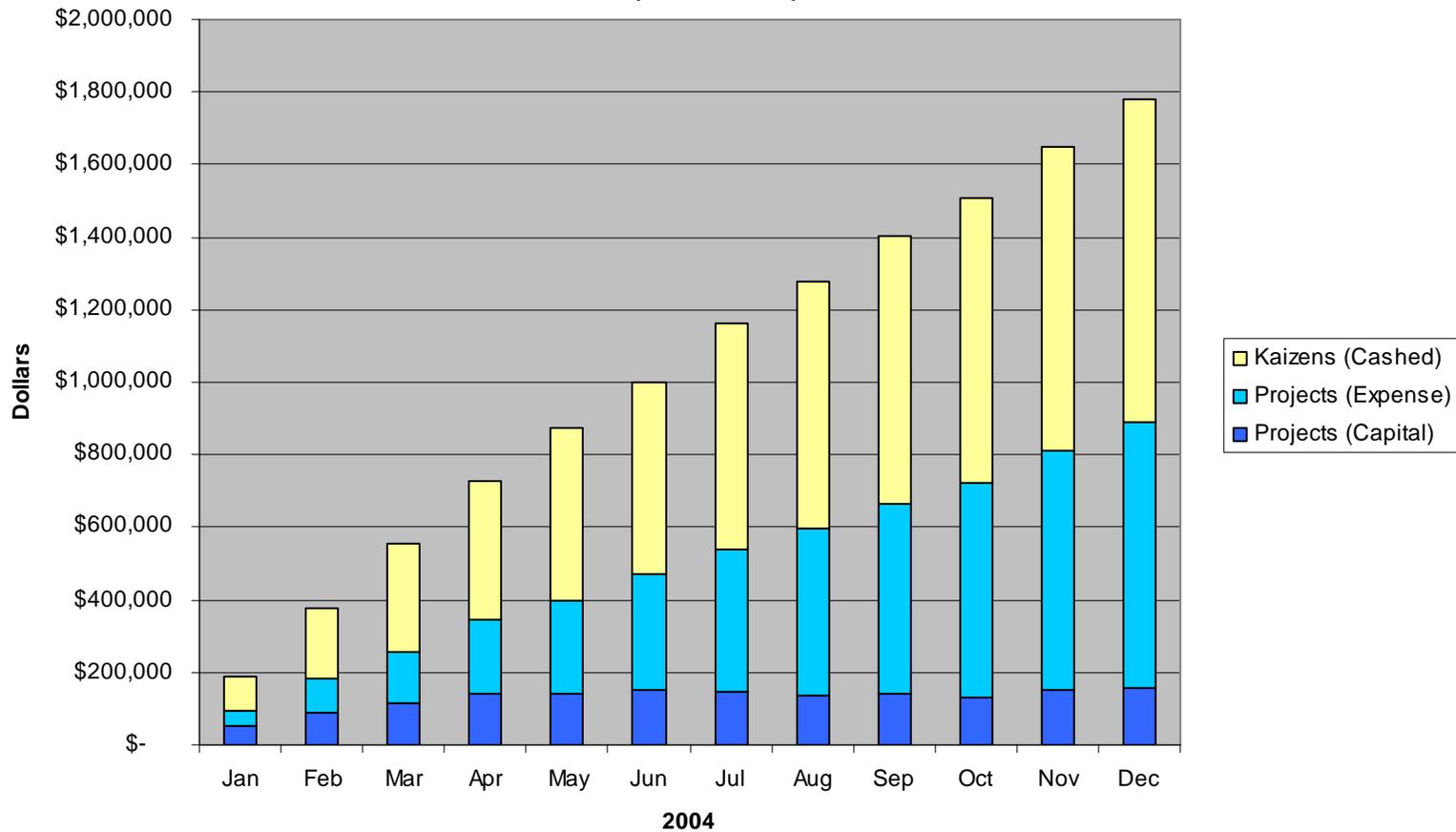


Sustaining Energy Efficiency Worldwide



Energy Conservation Efforts Savings 2004

(Cumulative)

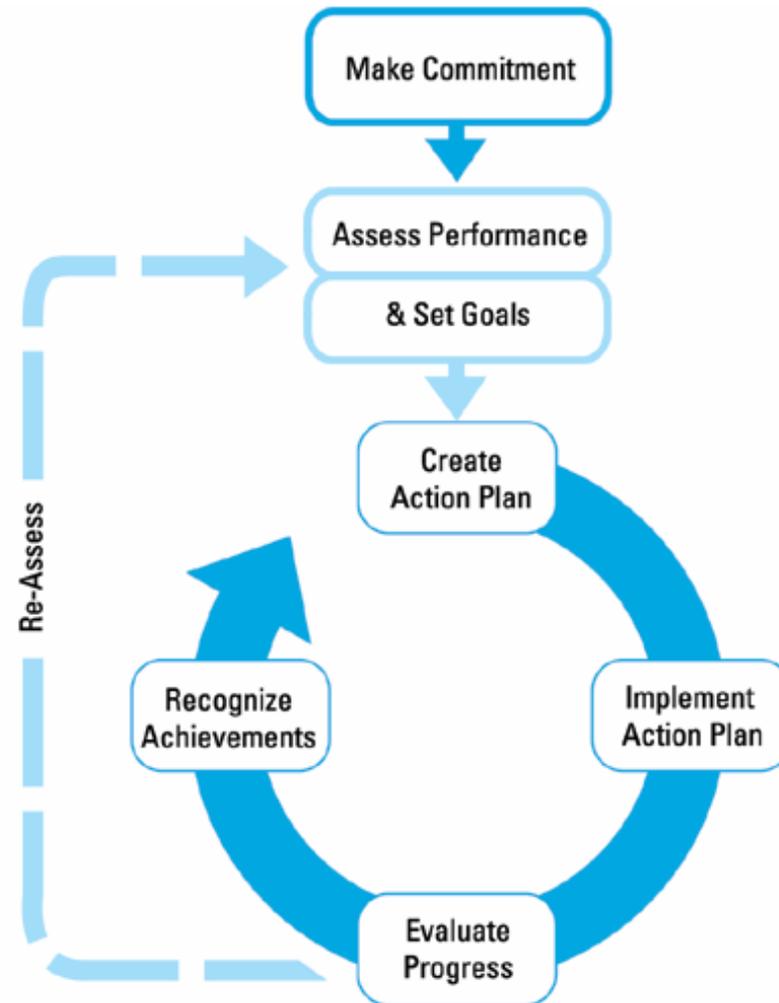


How do you get this kind of performance ???



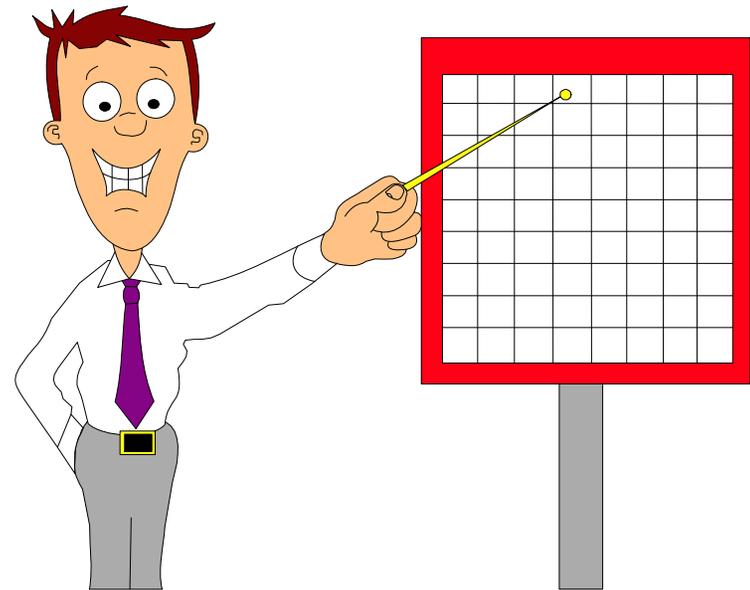
Form A Strategy

- Setup an Energy Office
- Use the ENERGY STAR strategy
- Get everyone to **Share Your Vision**
- Setup your program for LONG-TERM Success not the instant WIN



Establish Targets with Accountability

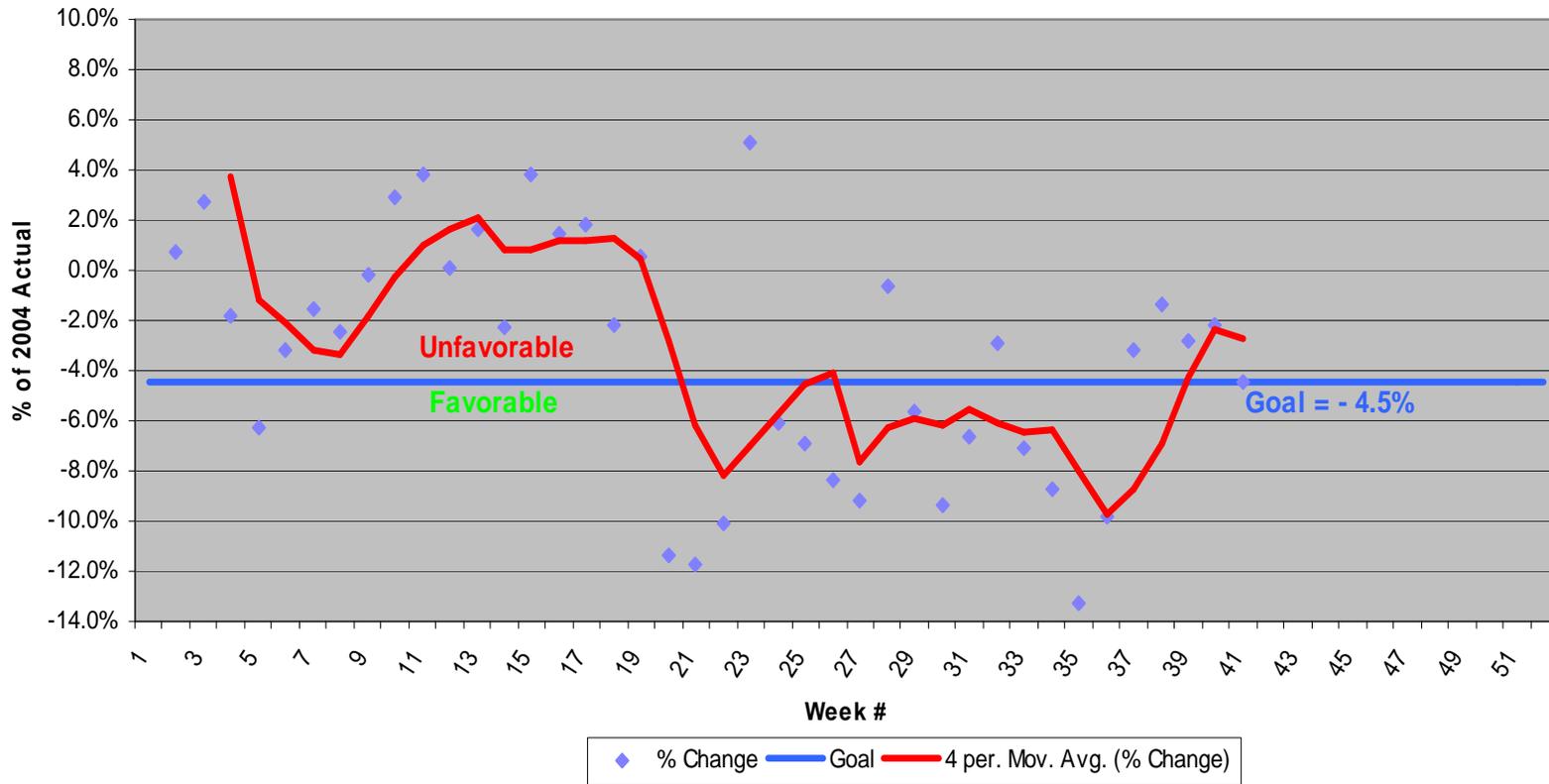
- **Targets** are established at the Top and measurable at the business unit level
- Managers are held **accountable**. Make it part of performance commitments and pay incentives. (Level 1 Plan)
- Tune into “ WIIFM “



Simplify Energy Performance

Energy Input
2005 Actual vs. Goals

YTD = -3.2%



Provide Indispensable Service

- Energy Office Provides
 - Expertise and Tools needed by businesses to succeed
 - Money for studies
 - Money for projects
 - Strategy to succeed
 - Exuberance

Leverage Corporate Culture

Kaizen (Kodak's Productivity Problem
Solving Framework)

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Energy Management

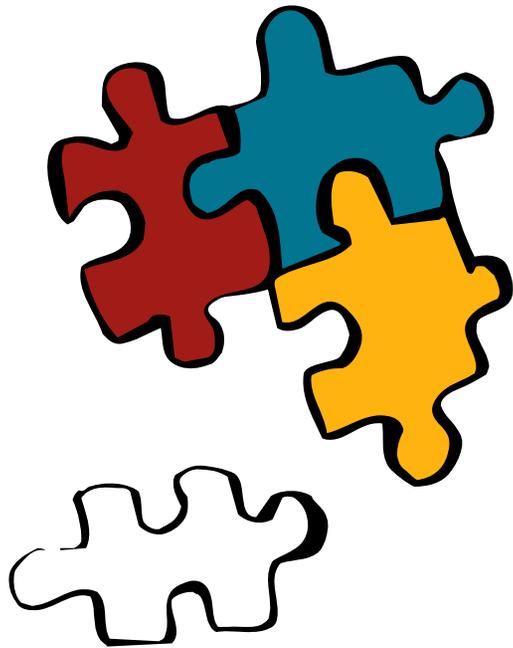
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The Energy Kaizen

(The Best Tool for Fast Cash)



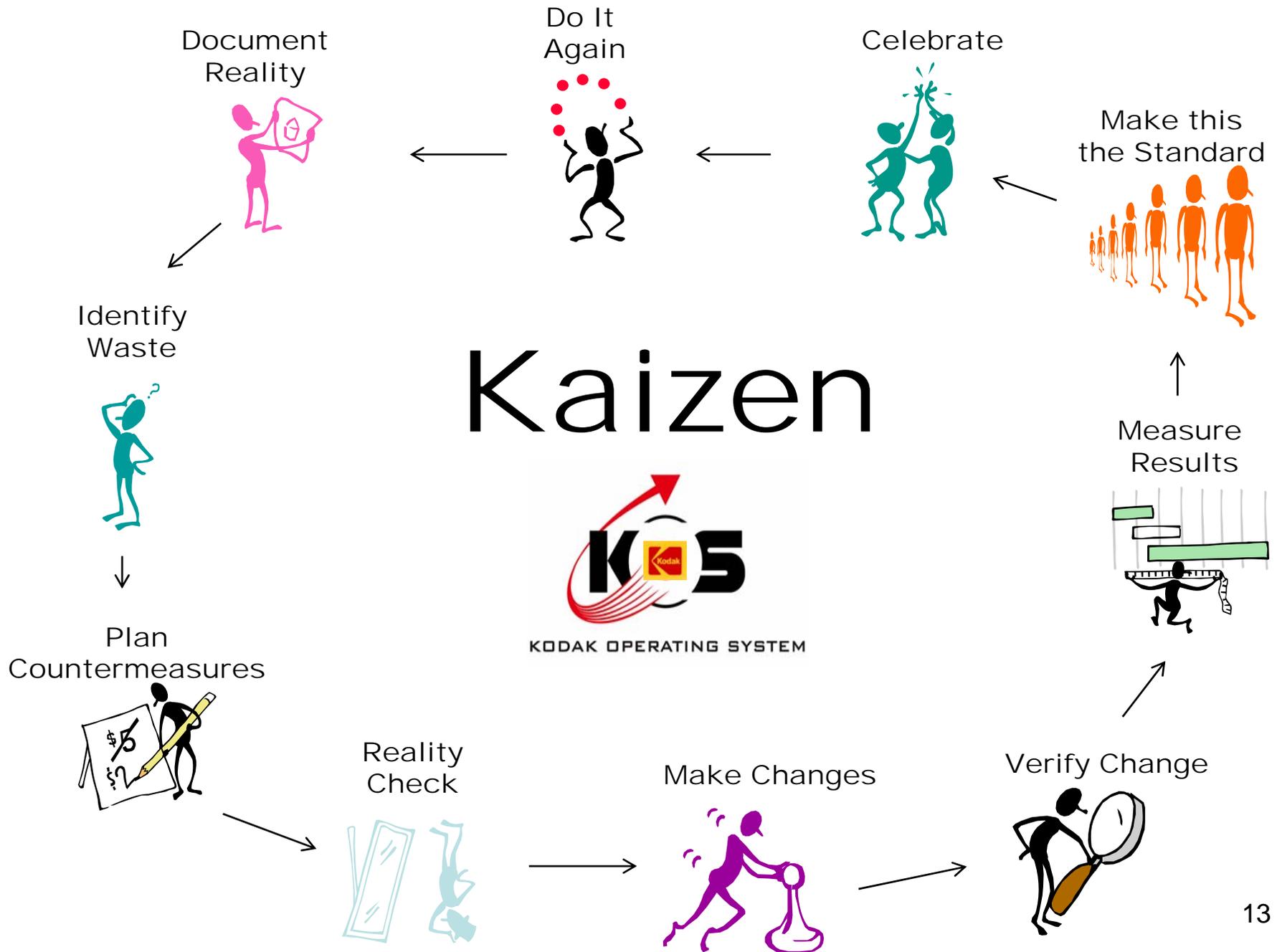
What is a Kaizen ?



- Kaizen
 - Kai = TAKE APART and MAKE NEW
 - Zen = MAKE BETTER (For the good of others)
- Uses Lean Thinking Approach
- Kaizen Methodology
Lean Thinking
Reduces Energy
Waste !
 - Search for Energy Waste and Eliminate It

What is an Energy Kaizen Event ?

- A short burst of intense activity (3-5 Days)
- Focused on eliminating energy waste
- Multi-Functional Teams
 - Utilities Specialist
 - Process Specialist
 - Product Specialist
 - Person outside department (Outside Eyes)
 - Quality Facilitator (KOS or Energy Office)
- Make Change During the Event
- Non-Capital Changes Stressed



Kaizen Event Planning

Preplanning is essential for success

- Collect process data prior to the event:
 - load requirements and actual data
 - temperature, humidity requirements and actual data
 - run times, hours of operation and actual data
- Develop equipment lists:
 - Motors, Pumps, Fans, Heaters, Process Equipment
- Advertise with Posters

Advertise the Kaizen Event

We're fishing for savings on August 18, 19, and 20th

**-100°F METHYLENE CHLORIDE ENERGY
REDUCTION KAIZEN**



Kodak Acetate Film Base Manufacturing and Utilities are partnering in conducting a **KAIZEN** to reduce energy consumption on the -100°F Methylene Chloride System.



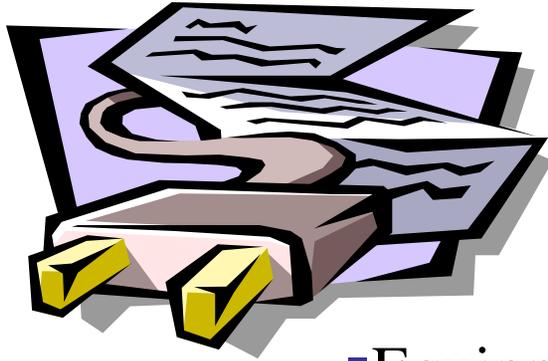
Recognize Achievements

- Individual—Feels valued
- Team—Celebration of success
 - Everyone wants to be on a winning team
 - Visible to upper management
- Company—Positive image
 - Energy Star Partner Awards



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- Thank You



Examples Energy Waste

- Equipment left running during idle time
- Equipment not commissioned properly
- Lighting intensity too high
- Lighting systems not on TOD schedules
- Fan systems not on TOD schedules
- Over conditioning of space
- Excessive equipment redundancy
- Chilled water down the drain
- Systems not optimized – not commissioned properly
- Lack of specifications
- Running to unrealistic expectations
- Condensate to drain

Kaizen Projects?

- High Efficiency Chillers
- Variable Frequency Drives
- High Efficiency Motors
- Right Size Pumps
- Right Size Motors
- Energy Information System
- Rebalance Air Systems

Future Plans

- Energy Information at your Desk
 - Real Time
- View Supply and Demand Side Data Simultaneously