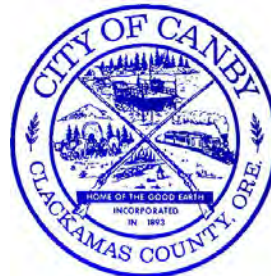


# Managing for Flow

Growth Strategy:  
Engaged Workforce



# OMEP Overview

- Not-for-profit agency established on 1996
- Mission is to create a stronger Oregon economy by helping small to mid-sized Oregon manufacturers become globally competitive.
- Private-Public partnership funded by federal, state, and client company funds.
- 15 total staff. 10 consulting professionals.

# Delivered Results

OMEP projects are designed to deliver quantifiable results. Six to twelve months after a project is completed, an independent third party commissioned by the National Institute of Standards and Technologies (NIST) surveys clients to measure the project impacts.

For the period  
July 1, 2006 to  
June 30, 2011

<b>Companies Surveyed</b>	<b>310</b>
Jobs Created or Retained	4,867
Increased or Retained Sales	\$663,083,000
Cost Savings	\$66,888,000

# OMEP Client Companies



## Oregon Manufacturing Extension Partnership

Partial list of OMEP projects

### PROJECTS by county

1 Nov 2010

#### BAKER

Behlen Manufacturing  
Blue Mountain  
Cutters Edge  
St. Elizabeth Health  
Tasty Bake

#### CLACKAMAS

Bob's Red Mill  
CCI Enterprises  
CRB Manufacturing  
Flir  
J Frank Schmidt & Sons  
Lightspeed Aviation  
Miles Fiberglass  
Oregon Iron Works  
Pioneer Pump  
Puddin River Chocolates  
SAM Medical  
Skutt  
Web Steel  
WW Metal Fab  
ZXERES

#### CLATSOP

J & H Boat Works

#### COLUMBIA

Composites Universal  
USIA

#### COOS

Hardin Optical

#### CROOK

Consolidated Pine  
Woodgrain Millwork

#### CURRY

Freeman Marine

#### DESCHUTES

Advanced Machining  
American Licorice  
Classic Wood Accents  
Deschutes Brewery

Kialoa Paddles  
Michi Partners  
Nashelle Jewelry  
Northland Furniture  
PV Powered  
Structus  
Suterra  
Vocal Booth

#### DOUGLAS

Alcan Cable  
FCC Commercial  
Furniture

#### GRANT

Malheur Lumber

#### HOOD RIVER

Diamond Fruit  
Homesield  
R&R System Tech  
The Fruit Company

#### JACKSON

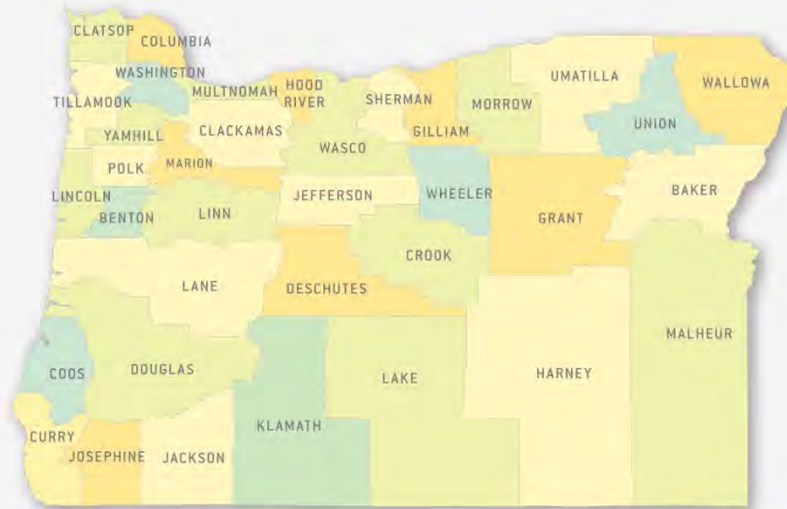
BOC Edwards  
Brammo Motor Sports  
Cascade Wood Products  
Collins Manufacturing  
Diode Laser Concepts  
Highway Products  
ICW  
Lamination Technology  
Marble Creations  
Micro Trains  
Rogue Creamery  
Sabroso  
Sweed Machinery  
Varney Manufacturing

#### JEFFERSON

Earth 20

#### JOSEPHINE

Bentwood  
Encore Ceramics  
Energy Outfitters



Fire Mountain  
Lee's Quality Doors  
Marzi Inc  
Pacific Botanicals  
Recognition Specialties

**KLAMATH**  
Collins Products  
MCX Inc  
REACH  
Smith Bates

**LANE**  
Bike Friday  
Farwest Steel  
International Door

Marathon Coach  
McFarland Cascade  
Mid Valley Glass  
Newwood Display  
Oak Patch Gifts  
Willamette Valley  
Company

**LINN**  
Chalet RV  
Entek Manufacturing  
Flakeboard  
Oberto  
Pacific Cast

**MALHEUR**  
Holy Rosary Medical  
Center

**MARION**  
Braka Industries  
Cabinet Door Services  
Chemeketa CC  
Columbia Helicopters  
Givaudan/Quest  
GK Machine  
Kerr Concentrates  
Sabroso  
Sequential BioFuels  
Silverton Hospital  
The Trading Company

Truitt Brothers  
Ulven  
Universal Forest Products

**MORROW**  
Boardman Foods

**MULTNOMAH**  
American Red Cross  
AmFor Electronics  
Ajinomoto Frozen Foods  
Apex Industries  
Applied Plastics  
Badge Print  
Beall Corporation  
Best Manufacturers

Bridgetown Bakery  
Bushwacker  
CCI Industries  
CNH Parts & Service  
Columbia Steel Casting  
Crary Shoes  
Daimler Trucks  
FullBore Innovations  
Georgia Pacific  
Gunderson  
Harry's Fresh Foods  
Hydra-Power Systems  
Imperial Manufacturing  
Indepak  
Legacy Health  
Madden Fabrication  
McTavish  
Moonstruck Chocolates  
Moventas  
Nature Bake  
PGE  
QPM Aerospace  
Scenic Fruit  
Service Steel  
Shed Rain  
Shin Shin Foods  
Sign Wizards  
Speedy Moto  
Stack Metallurgical  
Streimer  
Sulzer Pump  
Sunshine Dairy  
Teeny Foods  
Triad Speakers  
Tube Specialties  
Veris  
Work Systems Inc

**POLK**  
Forest River  
Marquis Spa

**TILLAMOOK**  
Halco  
McRae and Sons

**UMATILLA**  
Pendleton Grain  
Growers  
Pioneer Asphalt

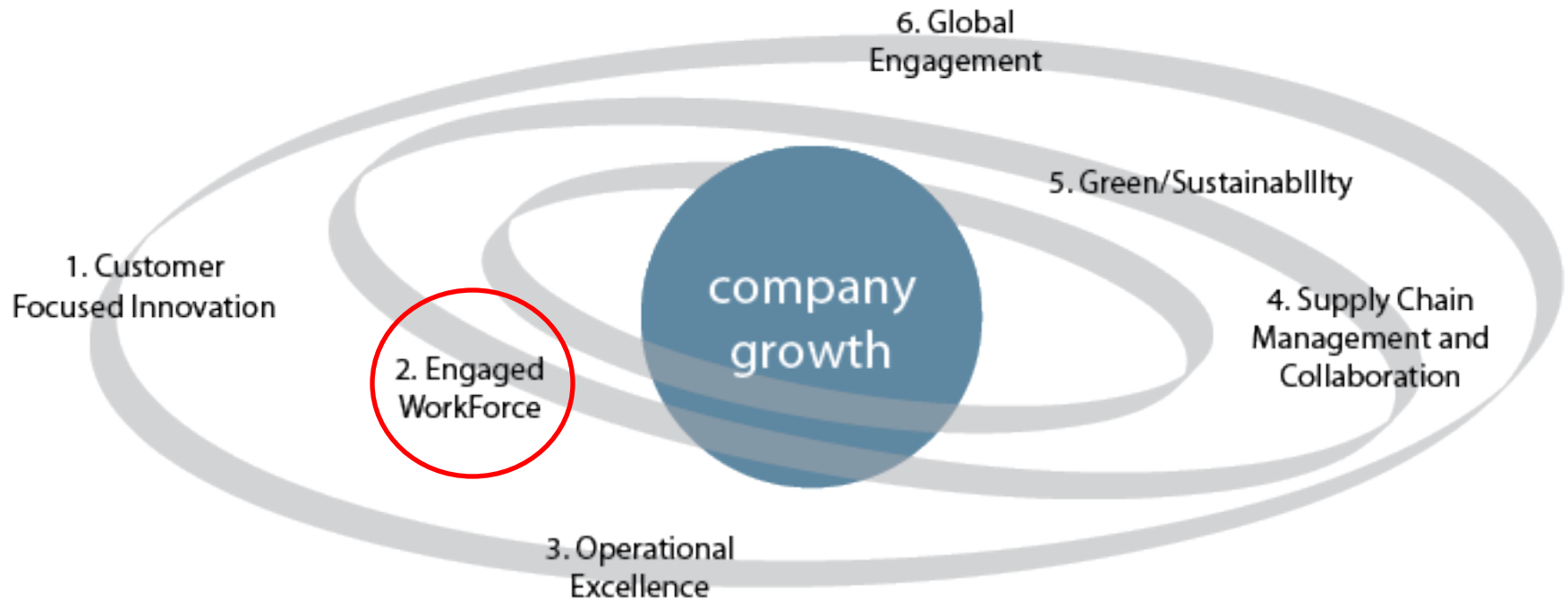
**WASCO**  
Oregon Cherry Growers

**WASHINGTON**  
ATAC  
Acumed  
Allied Systems  
B & L Wood Products  
Crimson Trace  
Englander  
Fujimi  
Generic Part Services  
Jewell Attachments  
Kerry Sweet  
Kinetics  
LightSpeed  
Lumber Products  
Northwest Signal  
Poly-cast  
Q & D Manufacturing  
Resers Fine Foods  
Sure Power Industries  
TriQuint Semiconductor  
Vanguard EMS  
Warne Scope Mounts  
Woodfold-Marco  
Welch Allyn Monitoring

**YAMHILL**  
A.R.E Manufacturing  
Amerson  
Betty Lou's  
Cascade Steel  
Climax Portable  
Machine Tools  
FMC FoodTech  
Mission Foods  
NW UAV  
Pacific Wood

# Strategies that Will Grow Your Company

You need to look at all the elements of your strategy at the same time while attempting to synchronize your activity.



# Managing For Flow



# Leadership Concepts

## **[System]**

Procedures, Rules, Techniques, Reports, Planned practices

## **[Behavior]**

Communication, Attitudes, Unplanned practices

# Leadership Concepts

## [Lead]

- a. To guide on a way, especially by going in advance.
- b. To direct on a course.

## [Manage]

- a. To make or keep compliant.
- b. To treat with care.
- c. To exercise executive or supervisory direction.



# Leadership System

Procedures, Rules, Techniques, Reports, Planned practices

What's Your Leadership System?



# Leadership Concerns

- Are we ahead or behind?
- What's getting in the way of meeting our goals?
- How are people performing?
- How are we synchronizing with other parts of the organization?
- What does the future look like?

# Lean Management System

## Starts with Pace

Are We Ahead or Behind?

Parts per hr/day/week

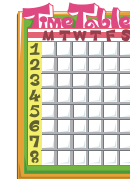
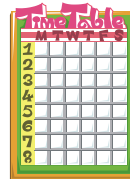
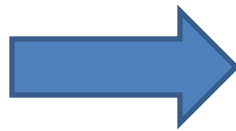
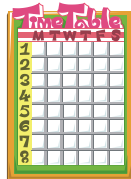


Complete by deadline

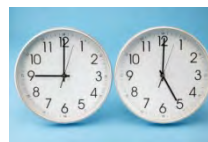


# Pace Established at Each Step

Parts Per Hour:



Complete by Deadline:



# Visual Workplace

## System Principle #1--Visual Management

***Anyone*** Can Walk in and See:

- The Current Situation (Self-Explaining)
- The Work Process (Self-Ordering)
- If You are Ahead or Behind (Self-Regulating)
- If There is an Abnormality (Self-Correcting)

# Pace/Schedule

A large grid of handwritten notes on a wall, organized into columns and rows. The notes are written in red and green ink. The grid contains various alphanumeric codes, dates, and measurements. The notes are organized into columns and rows, with some notes having handwritten text and others being blank. The grid is mounted on a wall and is used for tracking production or inventory.

# Pace/Schedule



# Problem ID

**Do things always go as planned? What gets in the way?**

Missing parts, Out sick, Rush orders, Etc.

Business as usual?



# Barriers to Flow

- If pace is missed—it's a problem!
- Document every instance.
- Solve easy stuff now!!!
- Queue up hard stuff for later—but make sure you get to it quickly.



# Gemba Walk

## System Principle #2—Accountability

**Gemba** – “The Real Place”

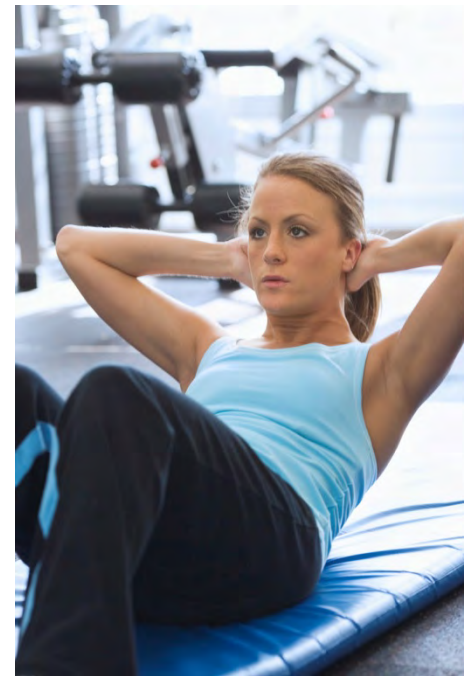
**Gemba Walk** -- Specific, predictable effort focused on a review of the visual system and facilitation of problem solving related to flow.



# Stick With It!!

## System Principle #3—Discipline

- What gets in the way?
  - Can't plan my day
  - I have to do what my boss tells me to do
  - Too busy fighting fires
- Need your own accountability system – **Leader Standard Work**



# Keep Yourself Honest

Once daily

Supervisor: Dave Green  
Today's Date: 12/14/04

Time	TASKS
6:00 AM	Check-in & Check Progress
6:30 AM	Change Meeting
6:50	Prepare for Day Review of Period - Inquiries Review Factory Floor Review Factory Status Risk Plan
7:00 AM	Assignment Meeting
8:00 AM	Daily Production Meeting Review Production Status
8:30 AM	Plant staff meeting
	Review Medical Safety Review Quality/PPE List Capacity Review Inventory Storage Review House Keeping Review Project Milestones
	Monitor all work, safety, delivery and other as needed
	Go to Plant with Sign & Part Wp. Part making resources Part making resources Part making resources Part making resources
	Review all sign, safety, delivery and other as needed
	Monitor all work, safety, delivery and other as needed
	Check for compliance Review & correct operator behavior Review for Work as needed

NOTES
Reasons for non-compliance issues
- Part placement discussion
- Part change discussion
- Basic Issues
- Boards Updated
- Support group help

Time	TASKS
1:00 PM	Set-up 3rd shift priorities
1:30 PM	David Mann
1:45	Site Update
2:00 PM	Prepares for Next Day Check-out Review This Day

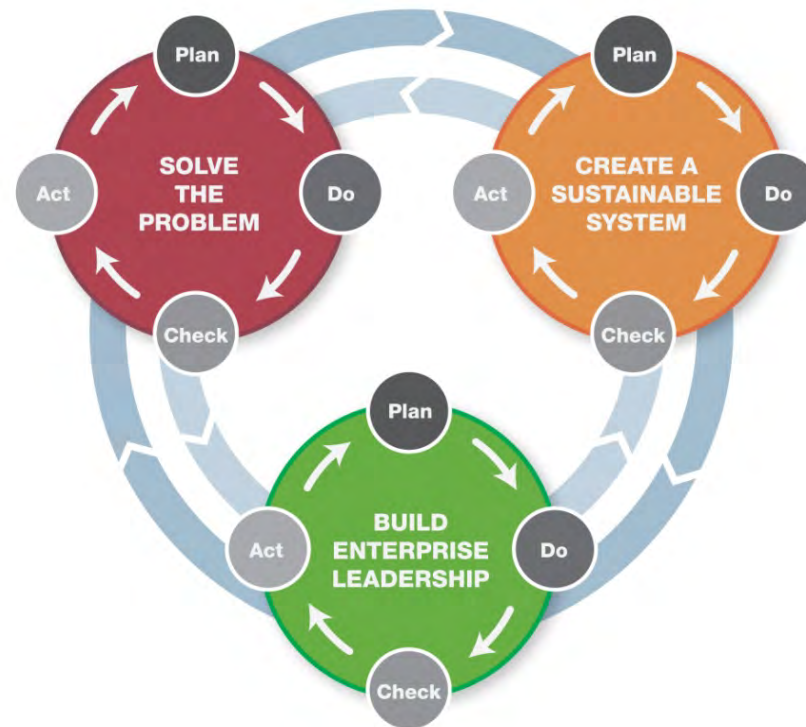
Daily Assignments

- 1. [unclear]
- 2. Names for Kazem
- 3. [unclear]

"Flow Interrupters" and other notes

Daily task assignments

# Relentless Systematic Approach



# Questions/Comments

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President

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Slides will be posted on blog: [www.omep.org](http://www.omep.org)