



**TRANSFORMING A MANUFACTURING COMPANY  
A CASE STUDY**

***PROFESSIONAL DEVELOPMENT MEETING  
APICS SAN GABRIEL VALLEY CHAPTER  
12/3/14***

Prof. Kash Gokli  
kash\_gokli@hmc.edu  
Harvey Mudd College

# Before the Transformation

---

- Employee morale low
- Quality poor
- Efficiencies low
- Costs high and margins low
- As a result
  - Customer satisfaction low
  - Financial results poor
  - Credibility with corporate low



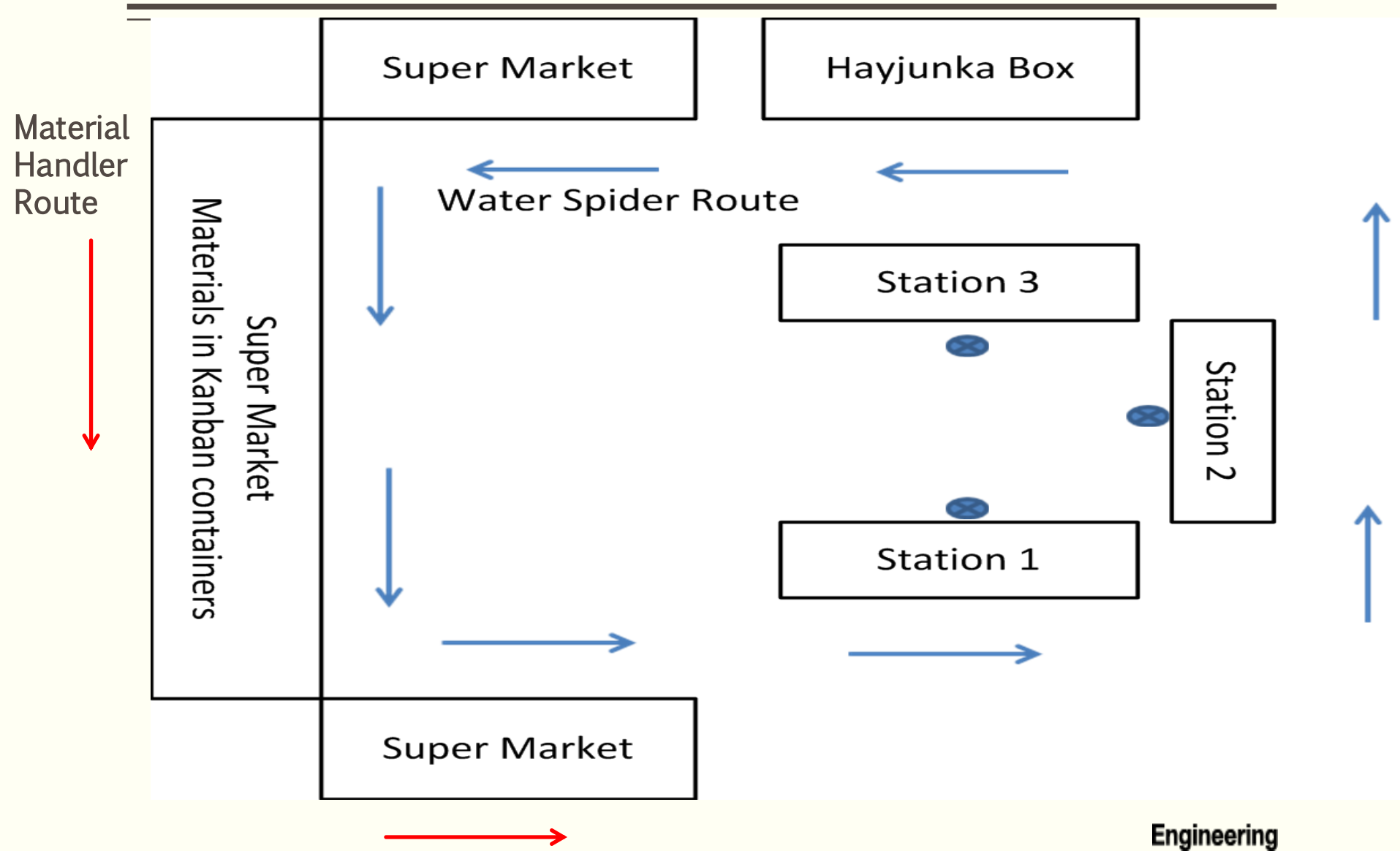
# The Transformation

---

Leveraging  
Processes and People  
for Breakthrough Performance



# Transformation Phase 1



# Concepts Applied in the Assembly Cell

---

- 1) Cellular manufacturing (U-shape)
- 2) Standardized work (optimized to the second)

Applies to management as well

Ergonomics, no chairs

Safety zones for reach

- 3) Takt Time
- 4) Single piece flow
- 5) Water spider
- 6) Super market
- 7) Kanban
- 8) Team leader



# Concepts applied in the Assembly Cell

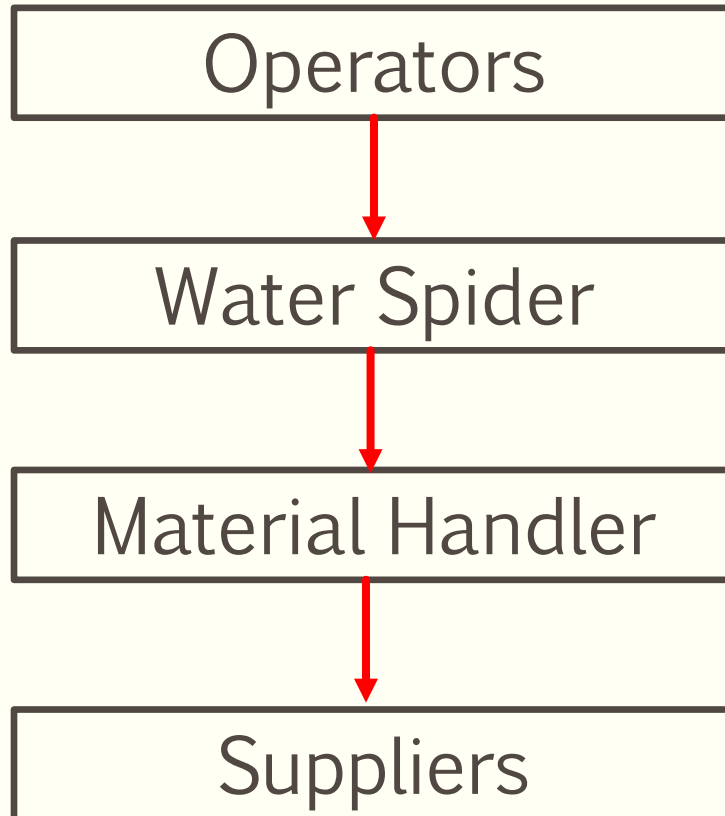
---

- 9) Andon lights, sounds
- 10) Kaizen culture (not just events)
- 11) Problem solving
- 12) No setup
- 13) Heijunka
- 14) Mixed model production
- 15) Jidoka
- 16) Agility
- 17) Time display (a problem solving tool)

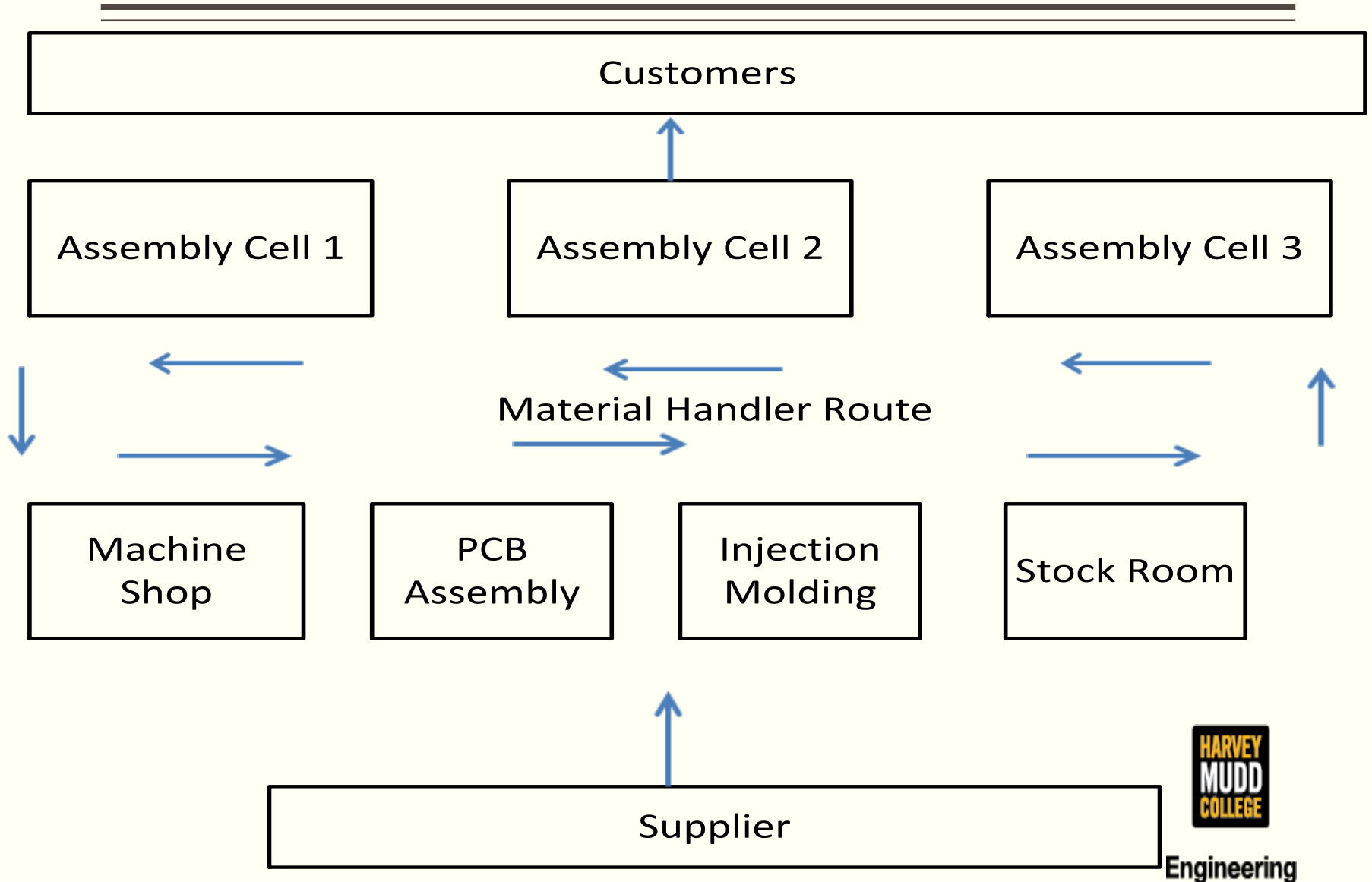


# Optimization from Operators to Suppliers

---



# Integration from Suppliers to Customers





# People Transformation

---

## 1) Training

Change agents  
Kaizen school

## 2) Empowerment

## 3) Supervisor's new role

## 3) Recognition

## 4) Communication

Meetings in the plant, problem solving presentations

## 5) Soft performance measurements

## 6) Fun stuff

Picnics, lunches, celebrations, awards, visits  
outside the plant



# Lessons learned

---

---

## 1) Create a need to change

Crisis can be a great motivation to change

## 2) For success, top management commitment and support is mandatory

Provide and communicate vision and strategies

## 3) Look outside the company, benchmark



# Lessons learned

---

---

4) Start small in a strategic pilot area in the facility

Use as a learning ground

Experiment, prove the concepts and then expand to more areas

Choose an area with most chances of success

5) It is about kaizen culture not kaizen events

Kaizen events are one time improvements and do not create sustainable cultural change

They are easy to implement but difficult to sustain



# Lessons learned

---

6) Don't be afraid to ask, you might get it

Think big, expect excellence

7) Lean, Six Sigma can not transform companies, people can

8) Devil is in the details

9) Extra space and time can hurt quality

10) Minimize supervisors and inspectors

Empower people to manage and inspect their own work

11) Success breeds success

Success is contagious



# The Transformation

---

---

Our accomplishments.....

