

# Traditional vs. J.I.T Principles

By: Mark Bukata

# Objectives

---

- Compare and contrast just-in-time (JIT) manufacturing practices with traditional manufacturing practices.
- Apply some just-in-time manufacturing practices as a hands on illustration

# What is Just-in-Time?

---

- ✓ JIT is a business philosophy that focuses on reducing time and cost and eliminating poor quality within manufacturing and non-manufacturing processes.
- ✓ Sometimes called *short-cycle* or *lean manufacturing*.

# The Philosophy of JIT

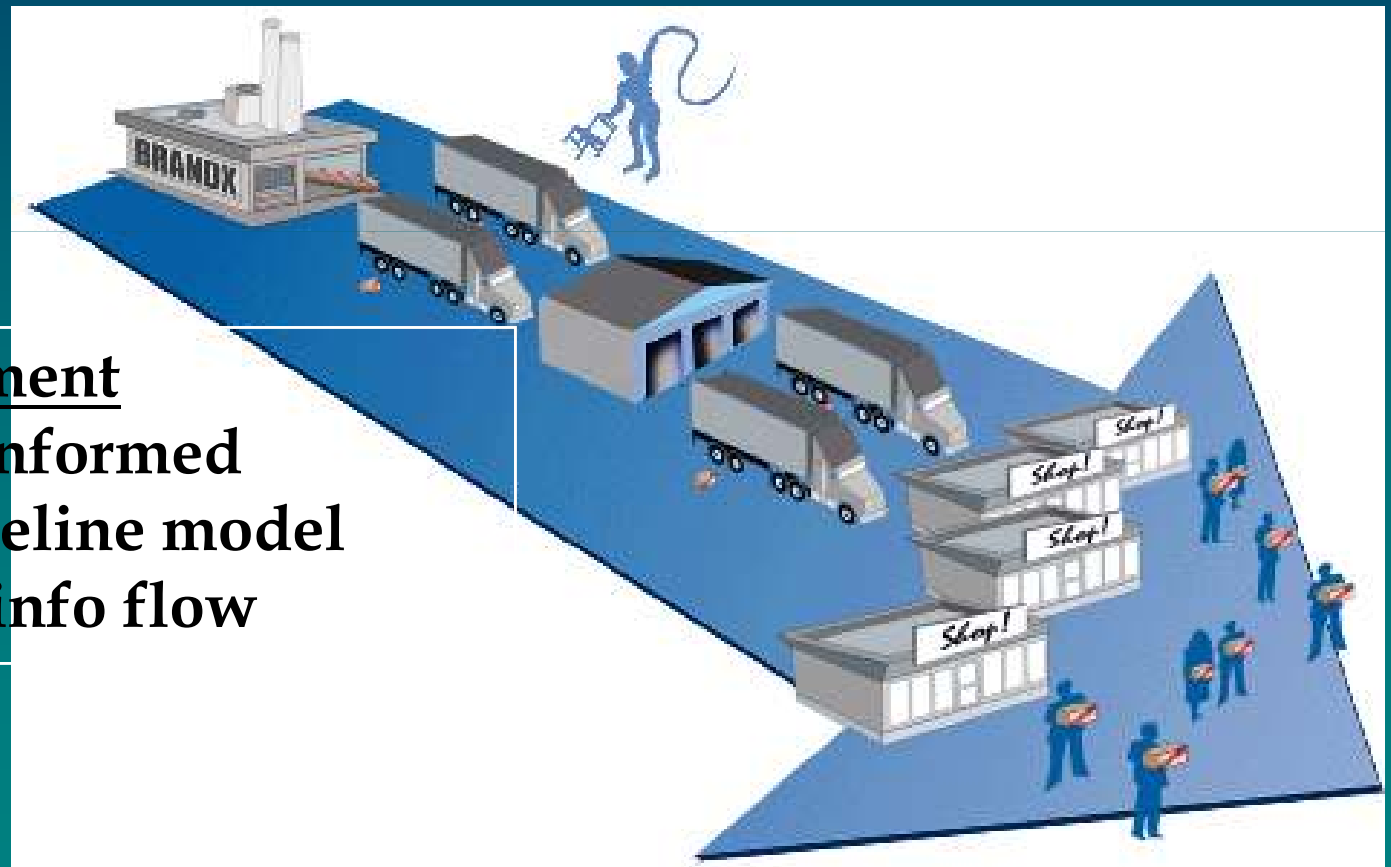
---

- JIT means getting the right quantity of goods at the right place and the right time
- All waste must be eliminated- non value items
- Broad view that entire organization must focus on serving customers
- JIT is built on simplicity- the simpler the better

# The World - Old Way

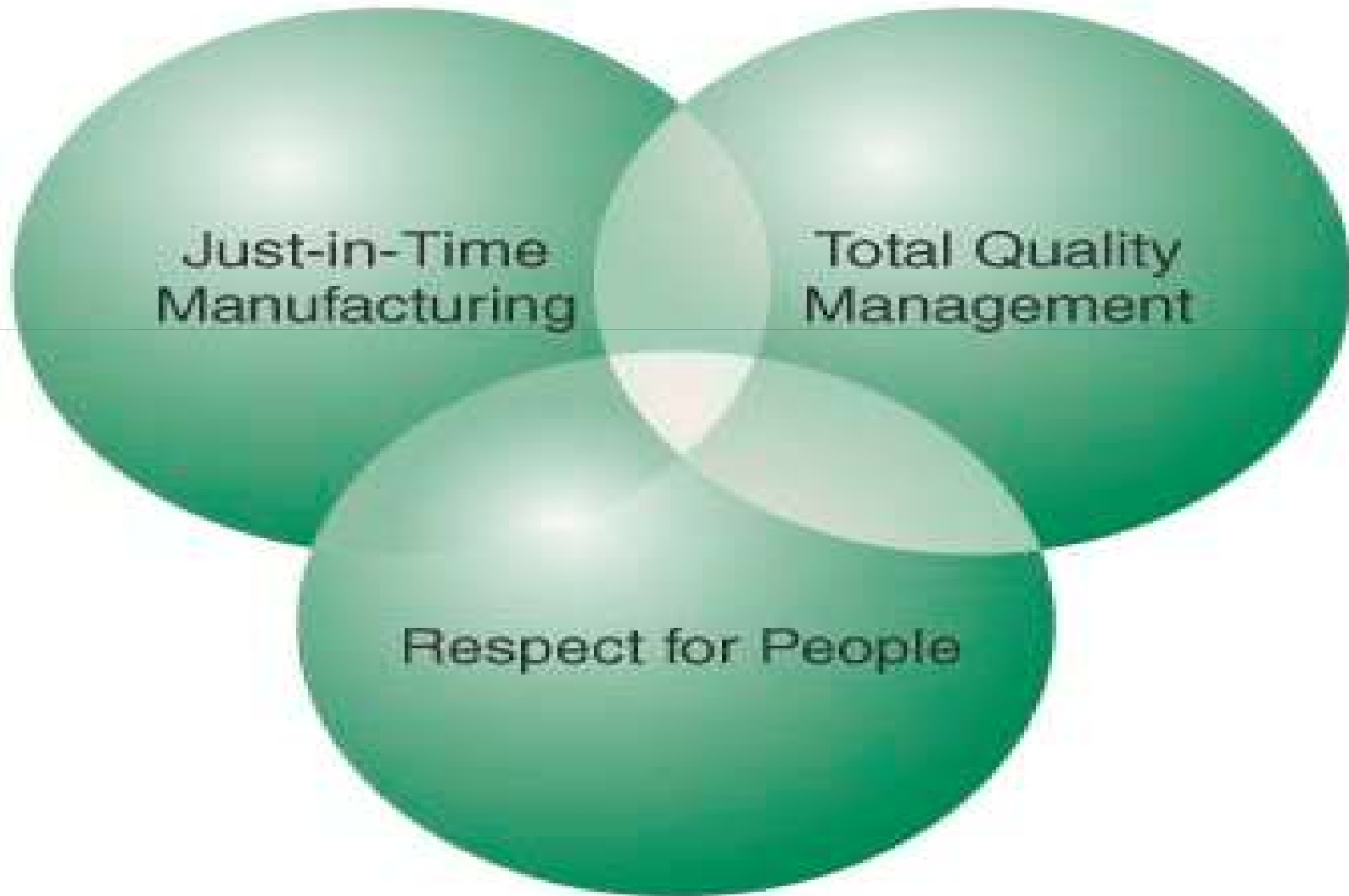
## Old Environment

- 📖 Partially informed
- 📖 Push / pipeline model
- 📖 One-way info flow

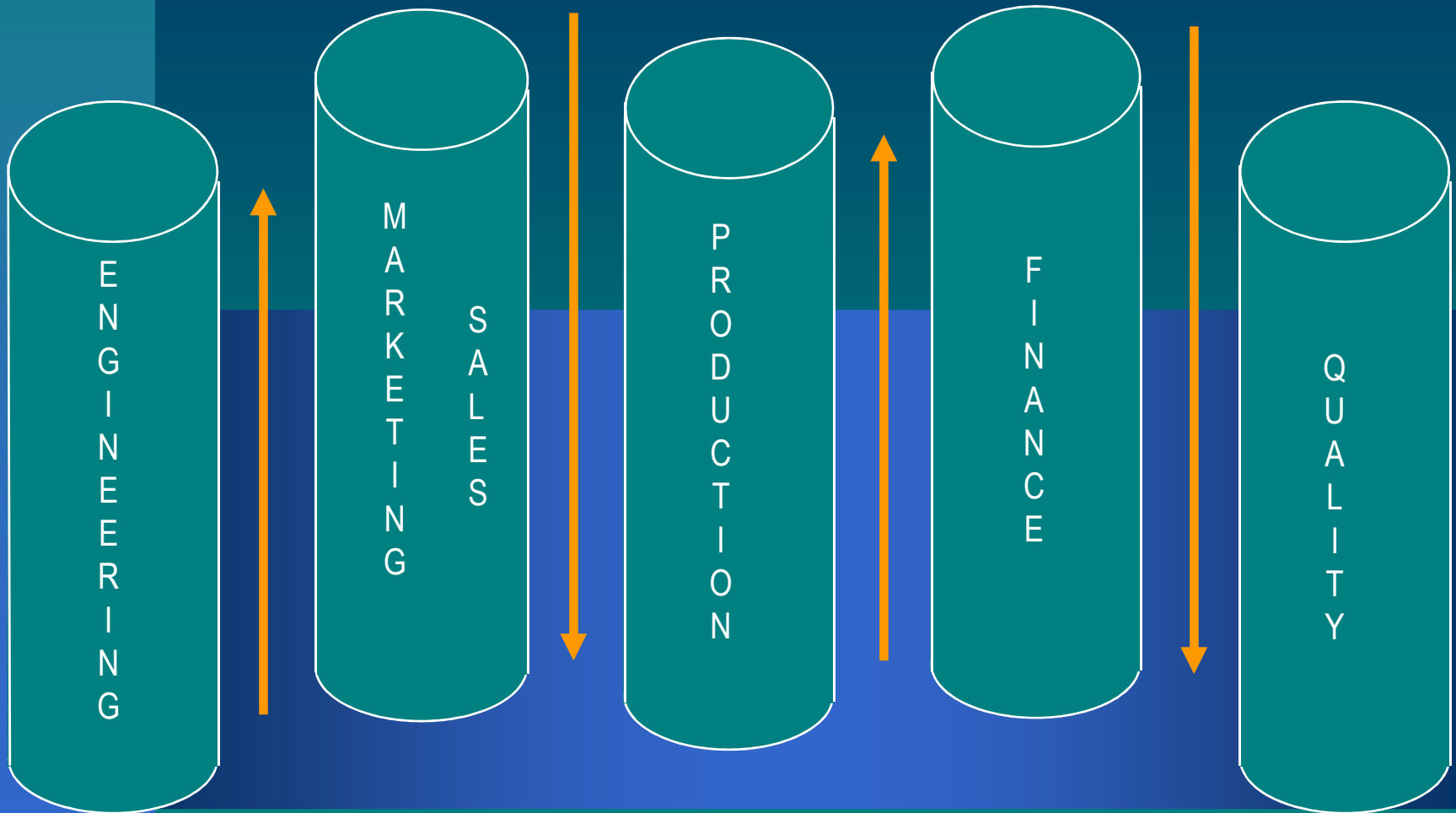




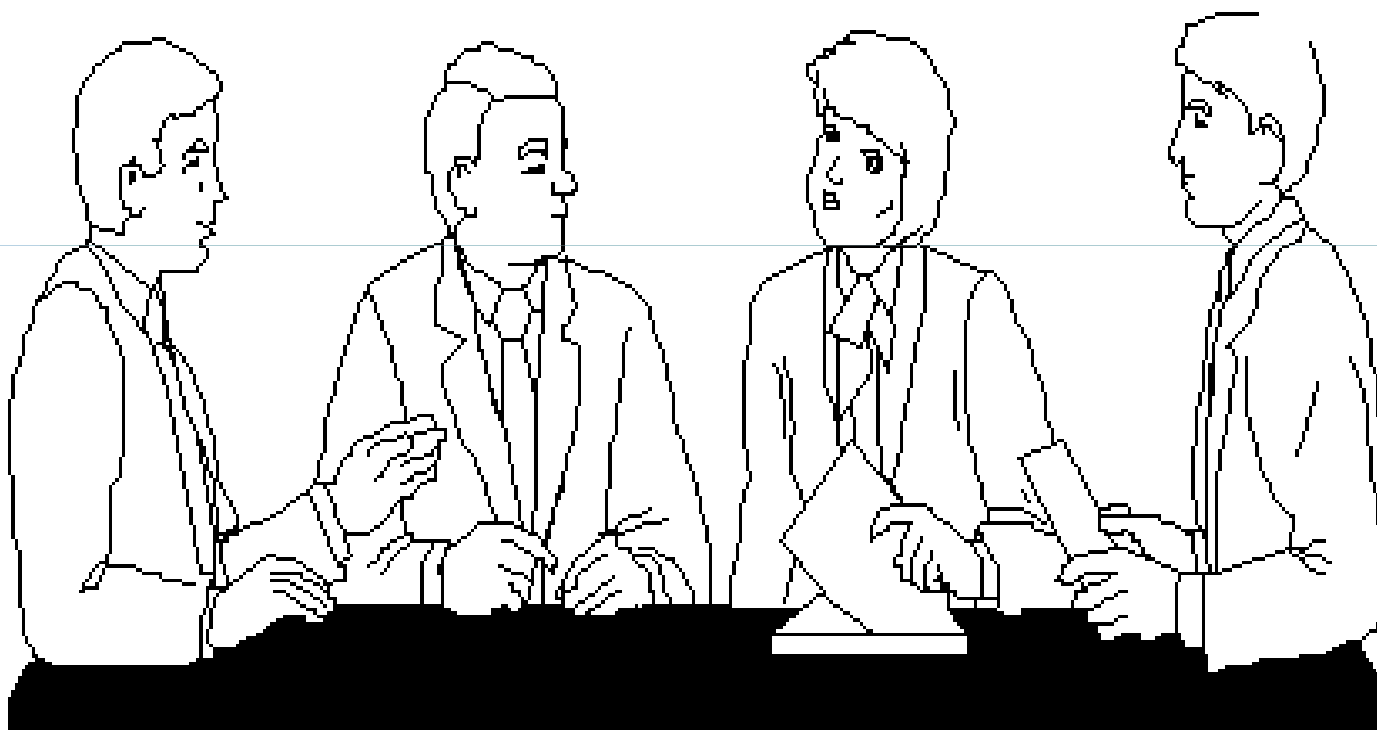
# The Philosophy of JIT



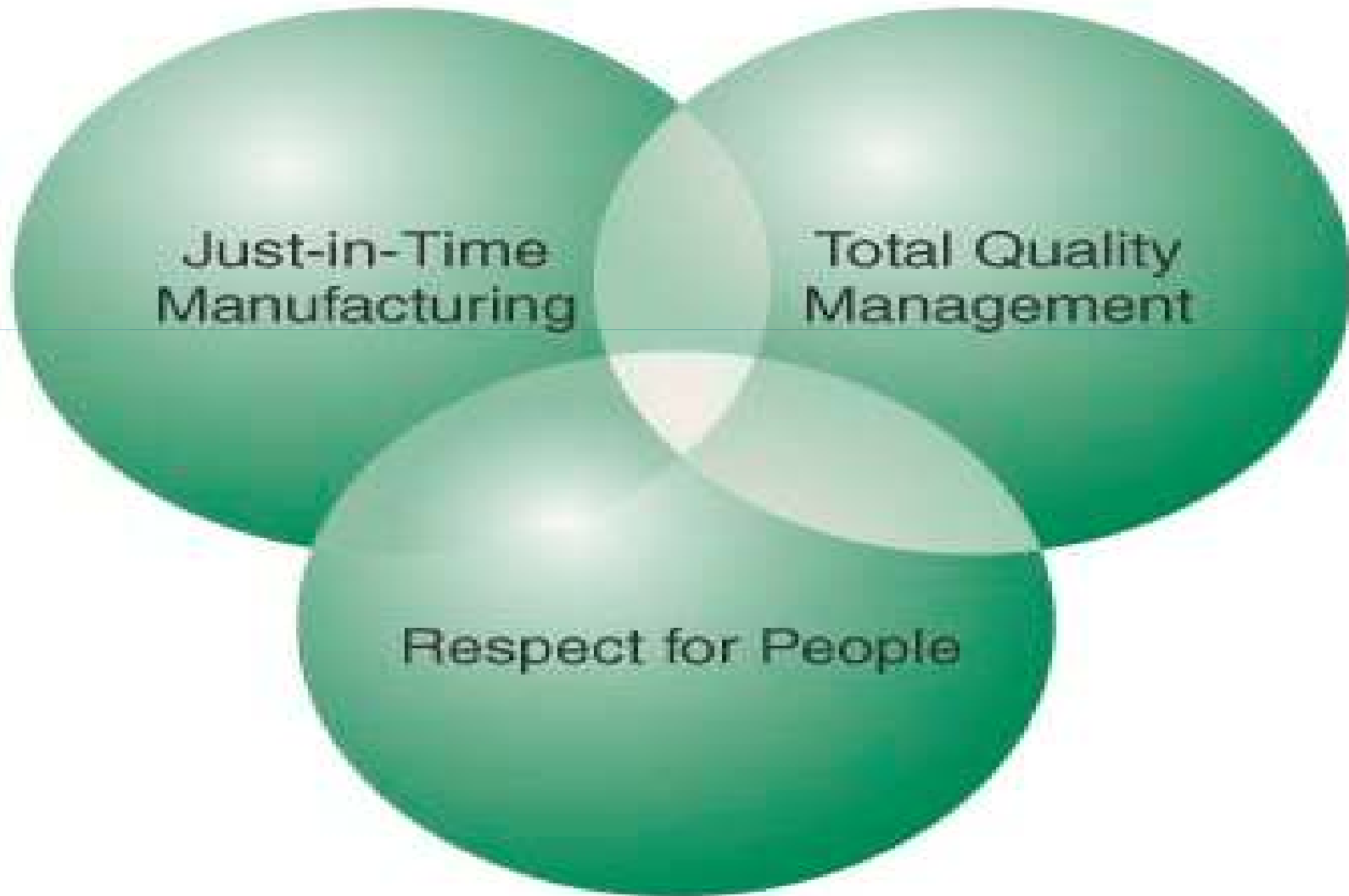
# The Communication



# The Communication



# The Philosophy of JIT



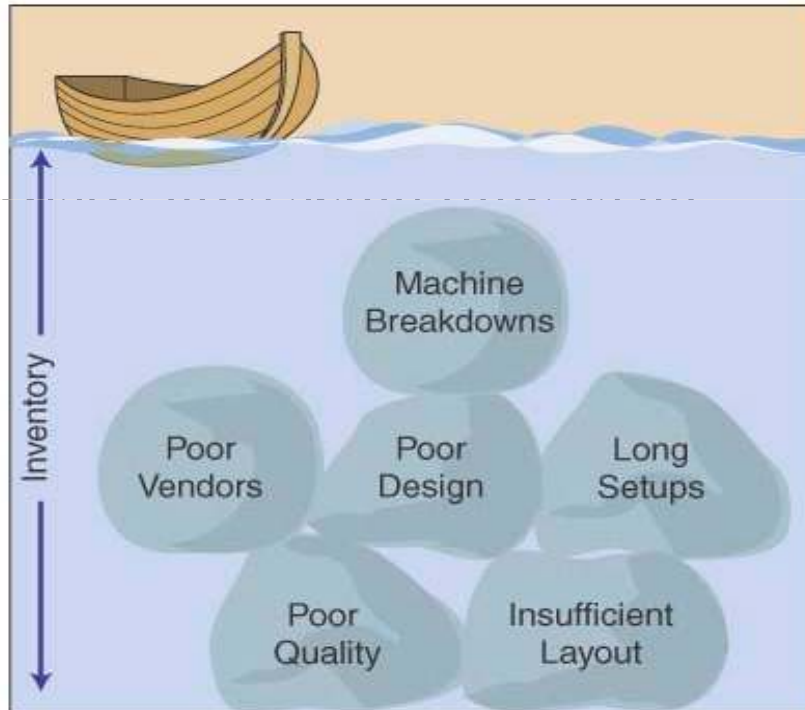
# Principles Just-in-Time

## Traditional Manufacturing

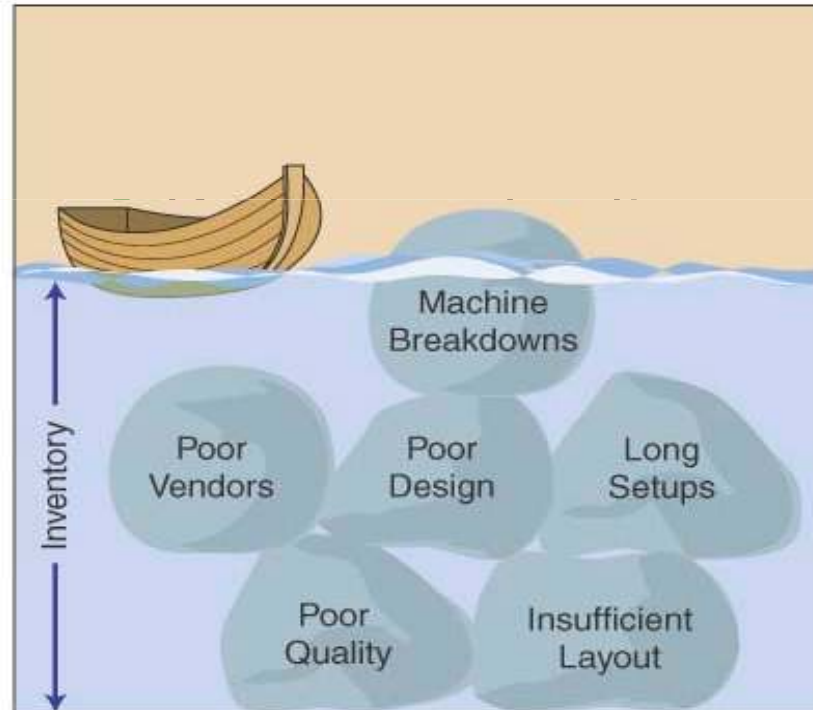
## Just-in-Time Manufacturing

Increases inventory to protect against process problems.

Reduces inventory.



(a) Inventory Hides Problems



(b) Reducing Inventory Exposes Problems

# Principles Just-in-Time

## Traditional Manufacturing

## Just-in-Time Manufacturing

Emphasizes push manufacturing.



Emphasizes pull manufacturing.

Tolerates defects.



Emphasizes zero defects.

Treats suppliers as “arm’s-length,” independent entities.



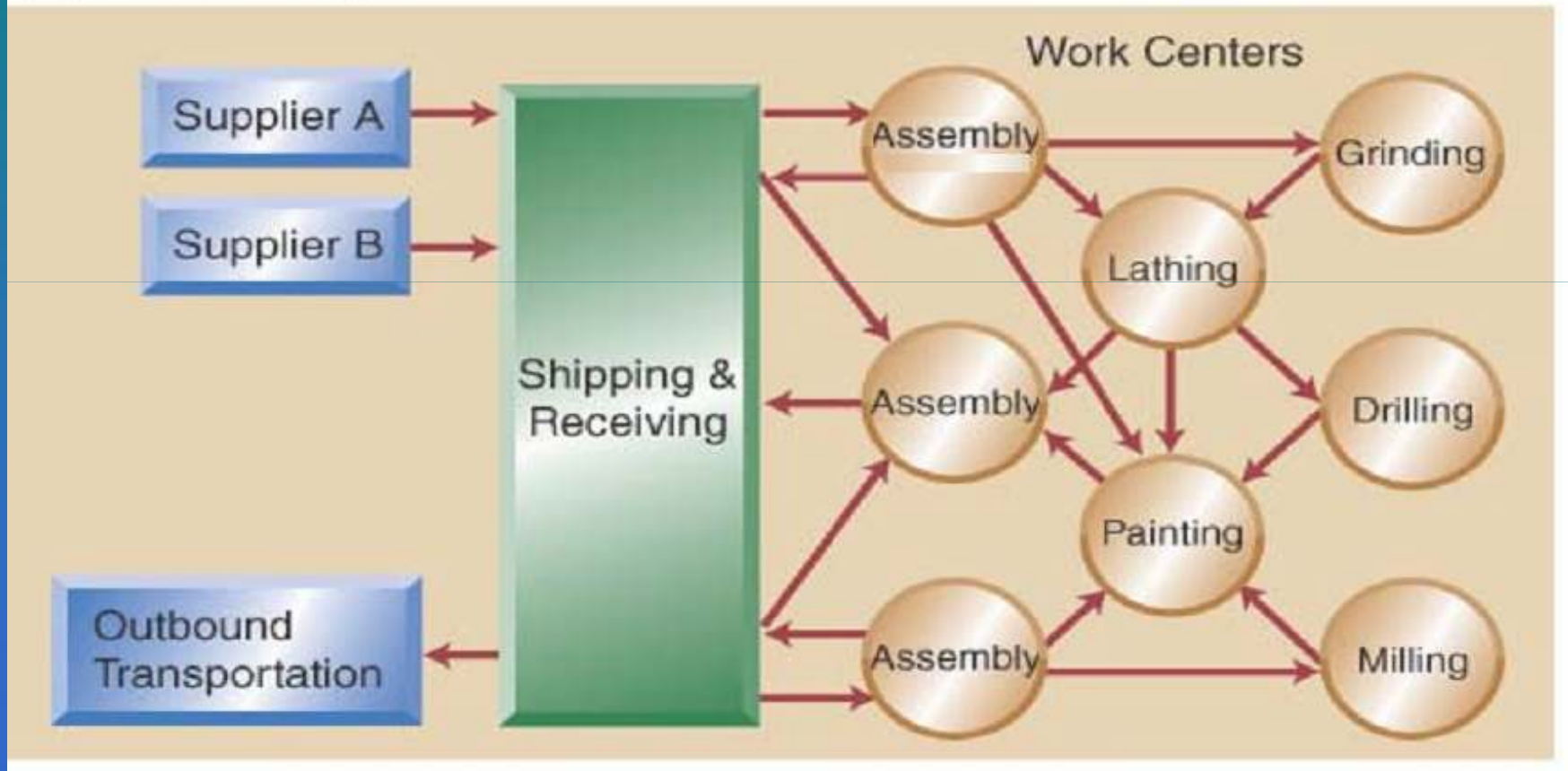
Emphasizes supplier partners.



# Set Up for the Demonstration

# Stage 1: Traditional Facility

(a) Traditional Layout



# What is the Plan?

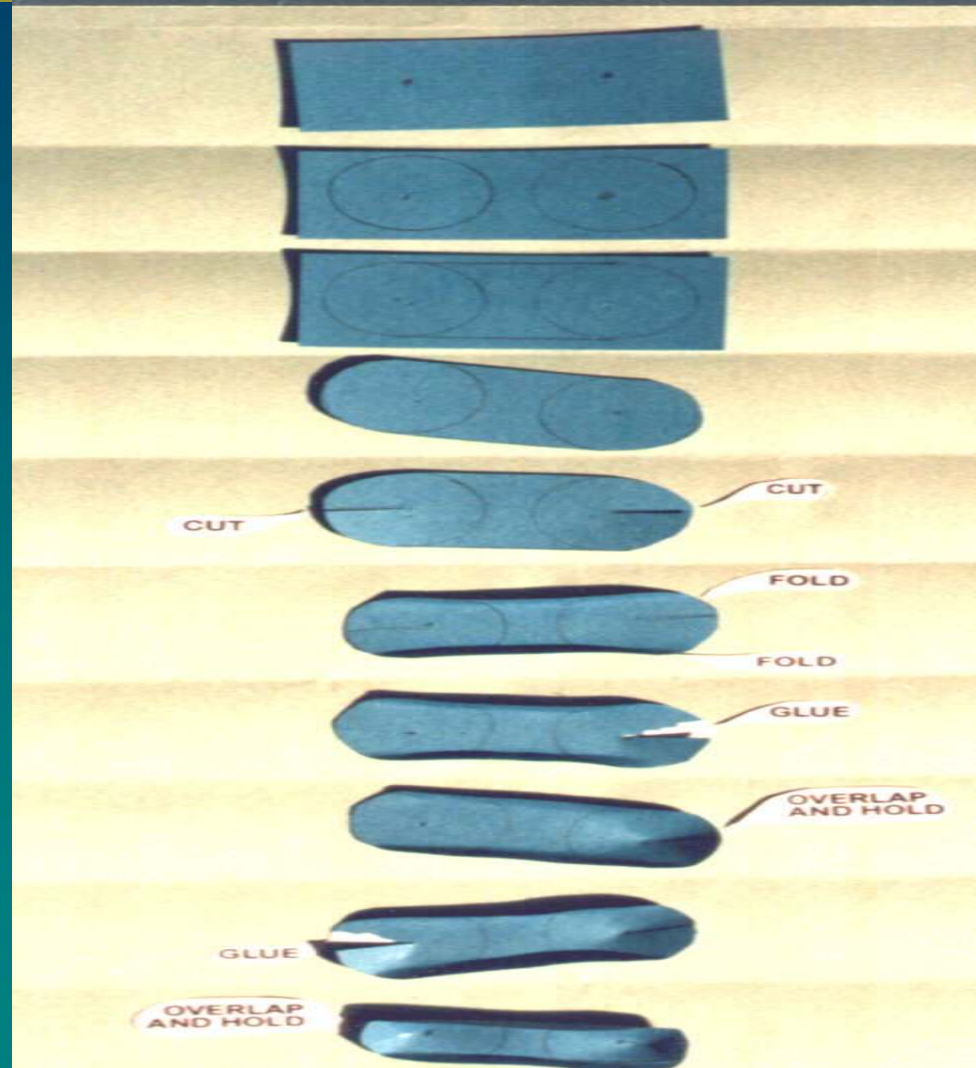
---

---

- Transportation company
- We manufacture – boats (paper)
- Automobiles – for ants!

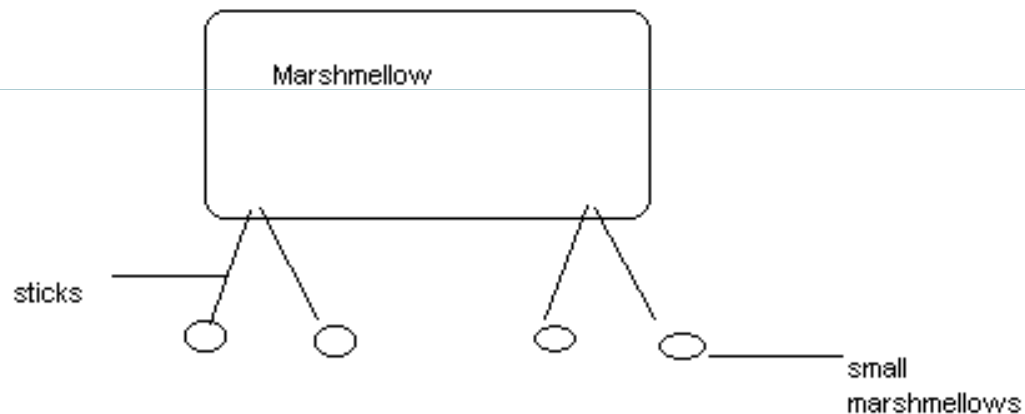
# What is the Plan?

- The boats



# What is the Plan?

- The Ant -mobile



# What is the Plan?

---

---

- Need manufacturing
- Need purchasing
- Need Quality Inspectors
- Need Customer Service
- Need Production Planners
- Need Material Handlers

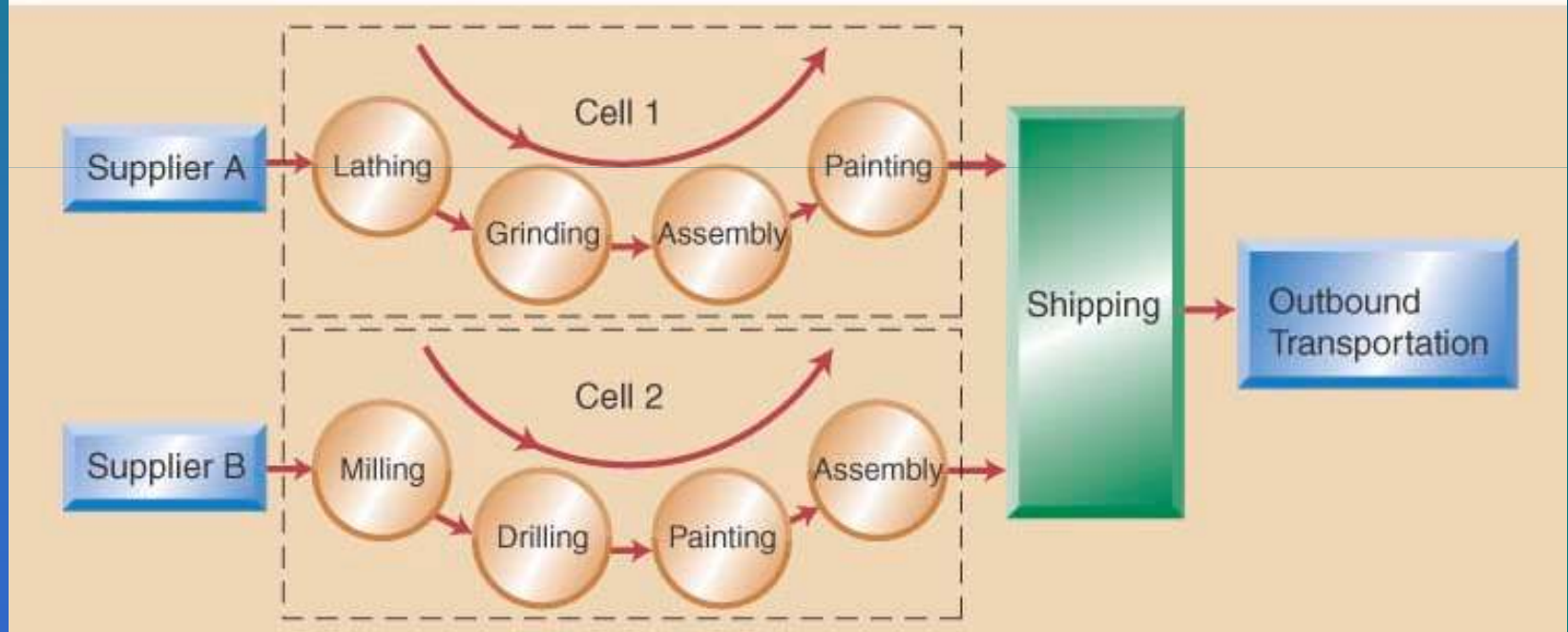
# Re-group

---

---

# Just in Time

(b) JIT with Cell Manufacturing



# Regroup

---

---

# Benefits of JIT

---

- Reduction in inventory
- Improved quality
- Reduced space requirements
- Greater Flexibility
- Increased Productivity

# Expected Results of JIT

---

- General
  - 50%-90% reduction in WIP
  - 60-80% reduction in scrap and rework
  - 30-60% reduction in space requirement
- In Longer term
  - 5-10X improvement in overall quality
  - 4-10X improvement in inventory turns

# Lean Thinking: Value

---

---

- Defined by ultimate customer (end user)
- Created by the producer

End

---

---