

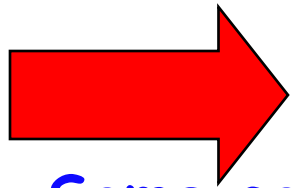
# **Process Design & Engineering\***

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September 2010**

**Adapted from Michael Hammer\***

# Hammer's Process Concept

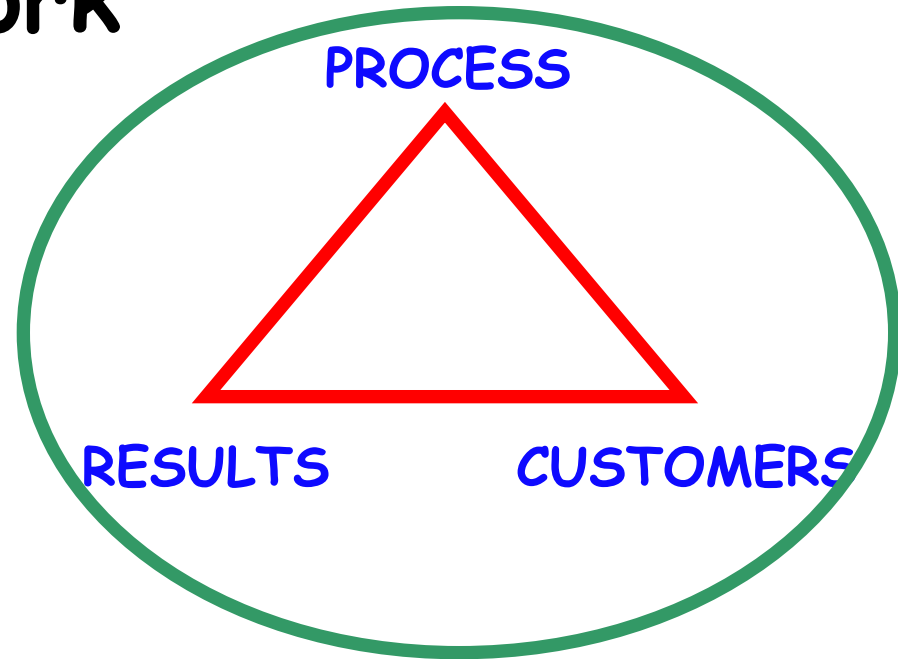
**PROCESS:** an *organized* group of *related* tasks that work *together* to create a *result* of value



end-to-end work

• Some common processes

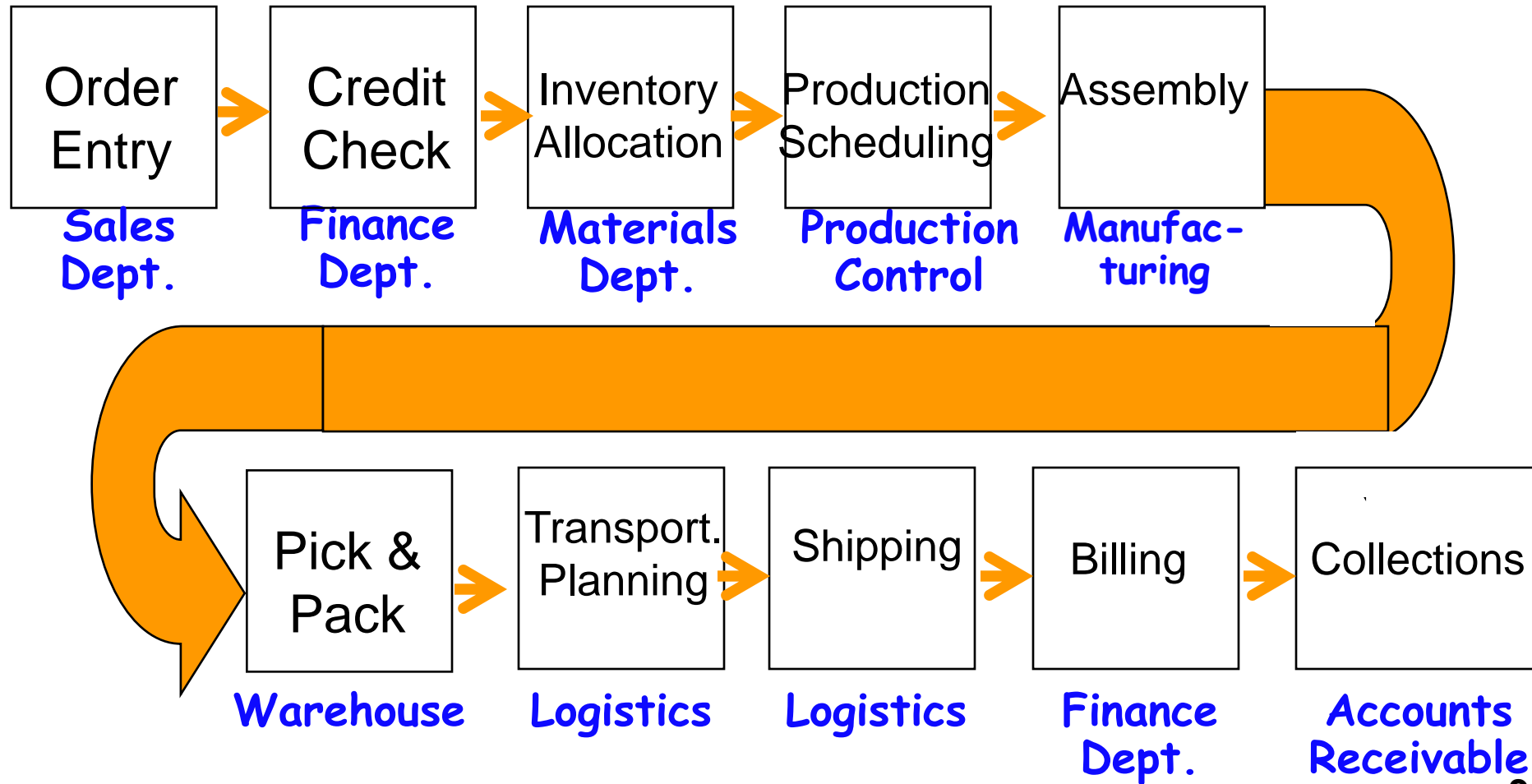
- order fulfillment
- procurement
- product development
- quality management



cross-functional, outcome-focused

Adapted from M. Hammer<sup>2</sup>

# Order Fulfillment: Mapping the Process & Owners



Optimize production schedules vs. Deliver solutions on time

# Process Orientation

***Process: An organized set of related tasks that come together to create a result of value***

(e.g., order fulfillment process, product development process)

***Value-Added Work:***

Necessary tasks the customer will pay for

(e.g., assemble the product, design improved performance, reduce cost)

***Non-Value-Added Work:***

Necessary tasks the customer will NOT pay for

(e.g., update inventory records, install MRP, balance the books)

***Waste:***

Unnecessary tasks the customer will NOT pay for

(e.g., rework improper assemblies, resolve manufacturing-sales disputes)

# Principles of High Performance Process Design

- A process should be performed by as few people as possible to minimize handoffs
- Strive for simplicity  
non-value-adding work  $\Leftrightarrow$  complexity
- Structure in terms of alternatives rather than exceptions *triage* keeps the basic flows clean

# The Facets of the Process Enterprise

## •Essentials

- A Model of the Enterprise in Process terms
- Process Owners
- Designs
- Measurement
- Teams
- Leadership

## •Enablers

- Process literacy
- Integration
- Coaching
- Culture
- Information Technology
- Facilities
- Human Resource Systems
- Management Systems

## Cisco's Processes



# Recognizing a Process Enterprise

- Teams are the norm  
as opposed to an occasional exception
- Workers are professionals with broad roles,  
responsibility, and decision-making authority
- Measurement is taken seriously  
on an end-to-end basis
- Supervisors act as coaches  
developing people but not managing their work
- Structure revolves around processes w/ process owners
- Teams are supported by the
  - infrastructure: facilities & systems, and
  - culture: customer orientation, sharing,  
accountability, discipline



# Process Design Mindset

- **Maintain the customer's perspective**  
(create process metrics to support customer view)
- **Seek out process leverage points**  
(what would make a very big difference --pro or con?)
- **Increase the value added**  
(reengineer the product as well as the process)
- **"Is it worth it?"**  
(sensitivity to tradeoff)
- **Always ask "why?"**  
(what's the real purpose? --goal vs. mechanism)
- **Keep things simple**  
(“complexity is the work of the devil”)

Adapted from  
M. Hammer

# Reengineering Principles

1. Organize around outcomes, not tasks
2. Have those who use the output of a process perform the process
3. Subsume information-processing work into the real work that produces the information
4. Treat geographically dispersed resources as though they were centralized
5. Link parallel activities instead of integrating their results
6. Put the decision point where the work is performed, and build control into the process
7. Capture information once and at the source

# Top Ten “Mistakes” in Reengineering (recast as “do’s”)

1. Understand the reengineering concept(s).
2. Identify your processes.
3. Understand existing processes. Don’t over analyze them.
4. “Serious” and committed leadership is critical.
5. Encourage aggressively creative ideas.
6. Use prototypes and experiments to test ideas.
7. Be fast. Be focused.
8. Everything should be on the table.
9. Implementation should be fast, improvisational, iterative.
10. Tend to the needs of your people.

# The Process Transition

<b>From</b>	<b>To</b>
<b>Task</b>	<b>Process</b>
<b>Worker</b>	<b>Professional</b>
<b>Job</b>	<b>Career</b>
<b>Department</b>	<b>Resource pool</b>
<b>Supervise</b>	<b>Support</b>
<b>Productivity</b>	<b>Results</b>
<b>Compensation</b>	<b>Earnings</b>
<b>Manager</b>	<b>Owner/coach</b>
<b>Organization chart</b>	<b>Process model</b>
<b>Operating committee</b>	<b>Process council</b>
<b>Executive</b>	<b>Leader</b>