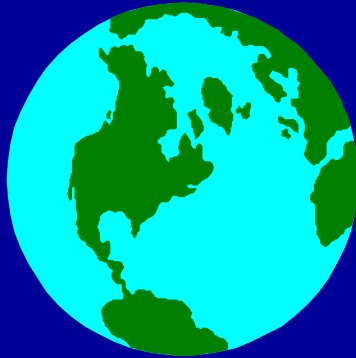


A. G. RAYMOND & COMPANY
Incorporated

Management and Technical
Solutions for the Wood Products Industry



***Battling The Challenge
of
Foreign Imports***

Mid-America Woodworking Expo

Columbus, OH

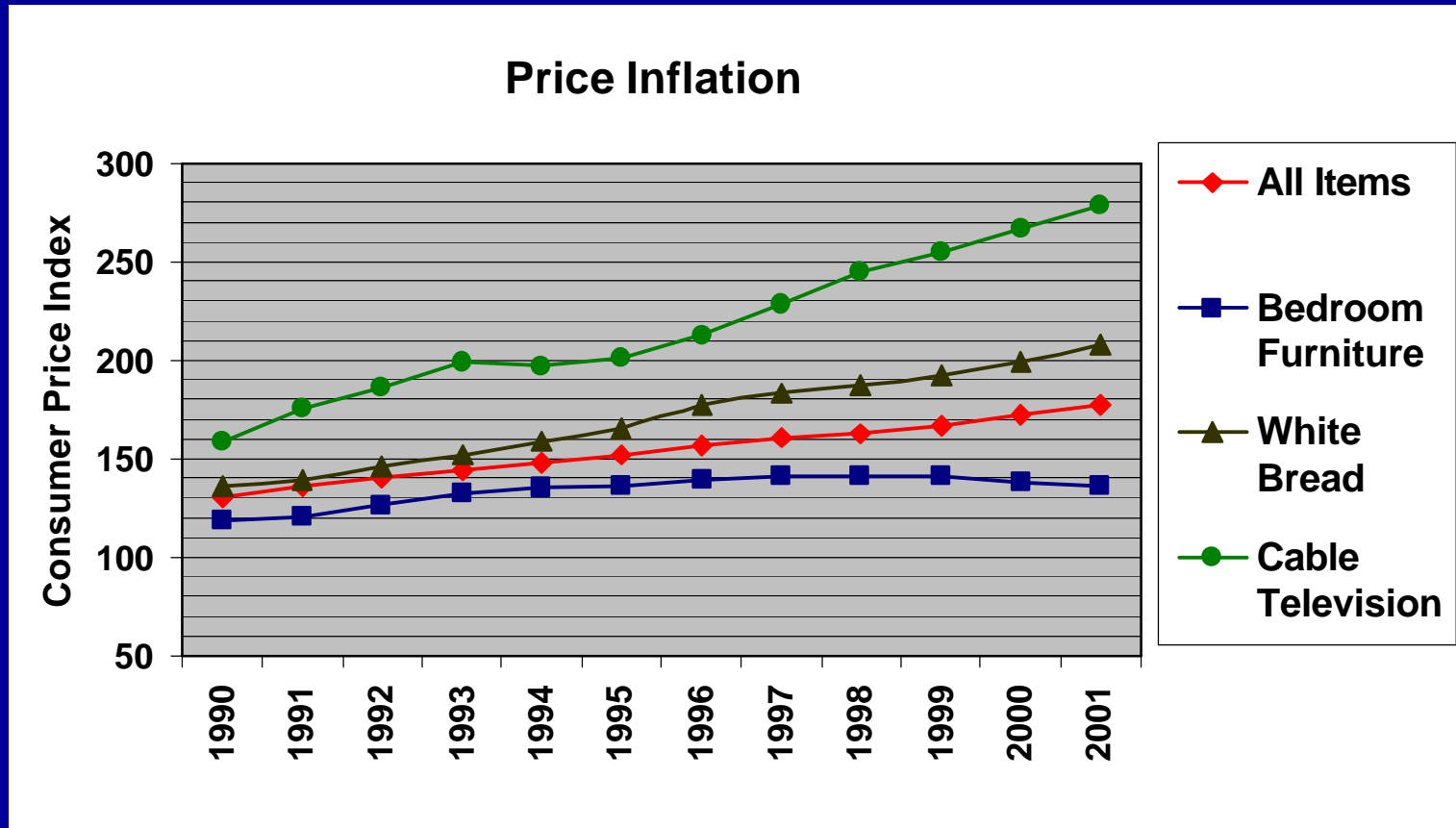
22 November 2002

The Key Fact in Today's Economic World

**OVERCAPACITY
IN
EVERY PRODUCT**

Falling Prices

Prices of wood products like furniture are falling...



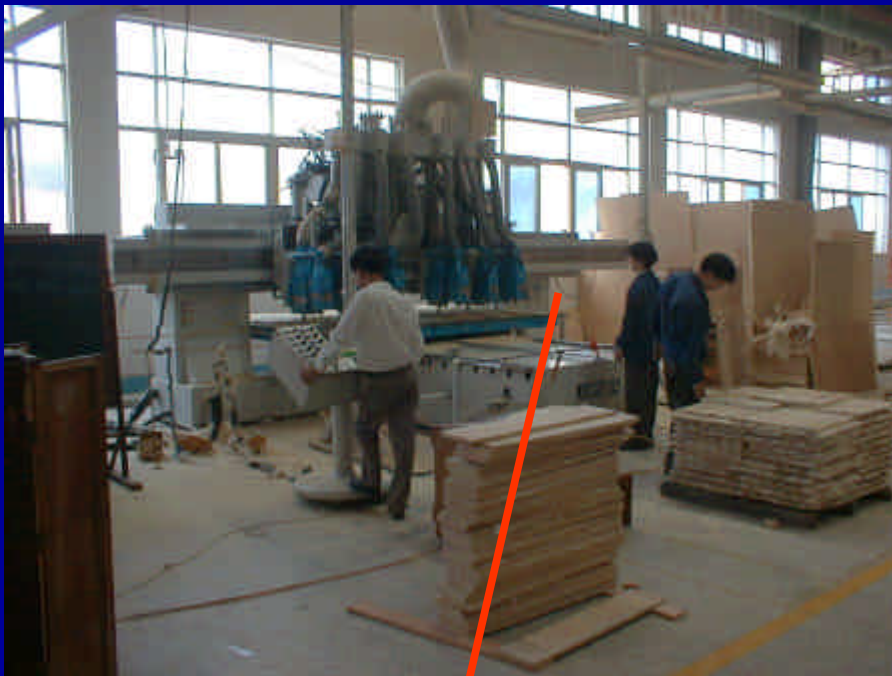
Commoditization

Products like these are fast becoming commodities...



Your Competitors

The best foreign plants combine low cost labor with world class machinery...



**CNC
Router**

**Optimizing
X-Cut Saw**



Your Competitors

and efficient materials handling equipment...



***Towline
Finishing***

***Conveyorized
Assembly***



The No-Profit Zone

- **All players have the same business model.**
- **Technology is not proprietary.**
- **Products are differentiated only by price.**
- **Prices are declining.**
- **Major customers are no profit zones.**
- **Survival requires a high ratio of 'good' years.**

Your Alternatives

**CHANGE
or
EXIT THE BUSINESS**

Time is of the essence!!

Process Requirements for Survival

U.S. producers are left with only two competitive opportunities...

- **Semi-Customization**
- **Fast Order Fulfillment**

It's better to offer both attributes!

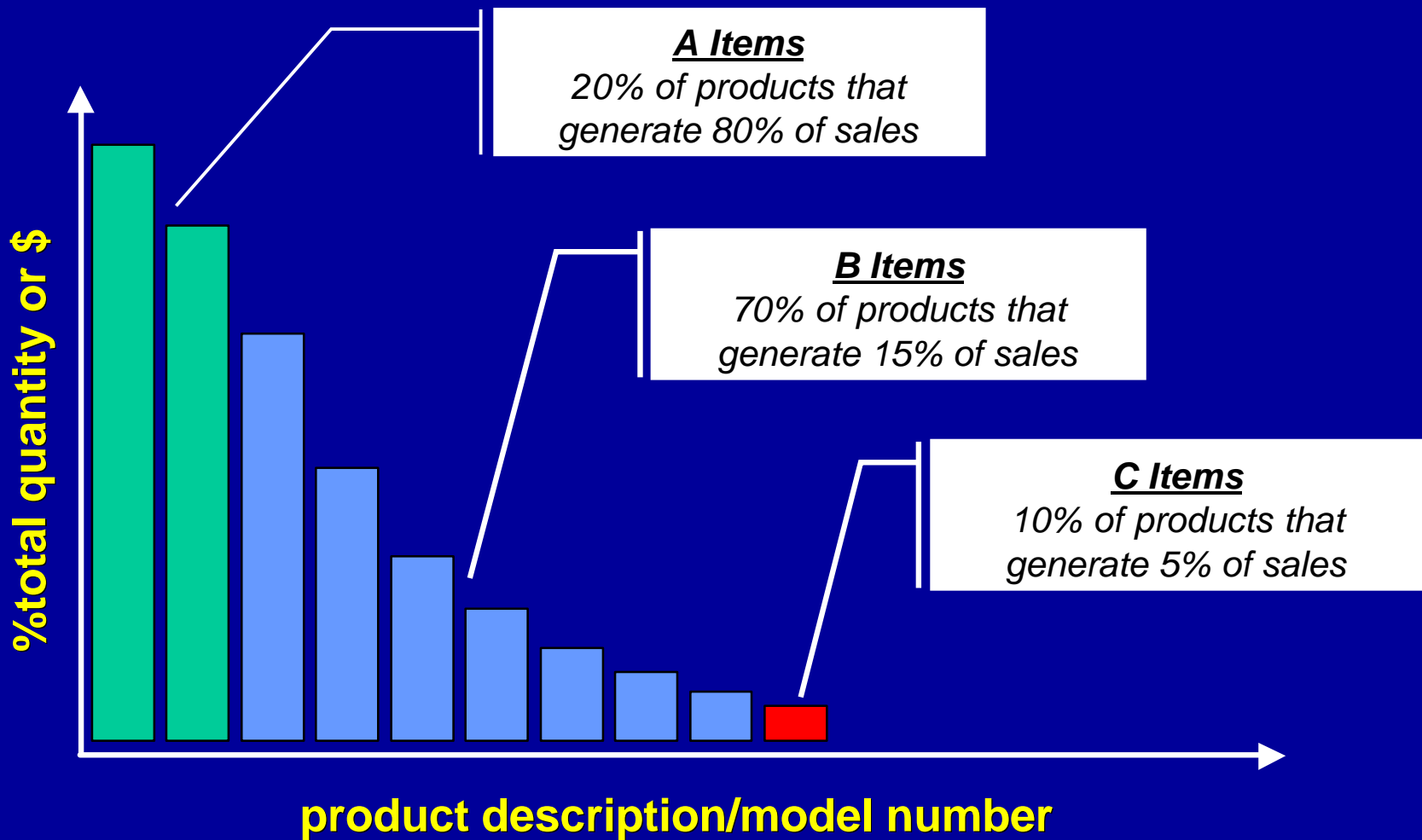
Operational Levers of Success

1. Focus your plant(s) on your core products.



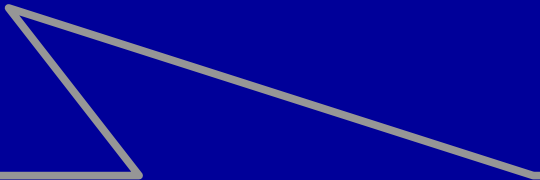
→ Understand the volume relationships in your product line.

Volume Relationships



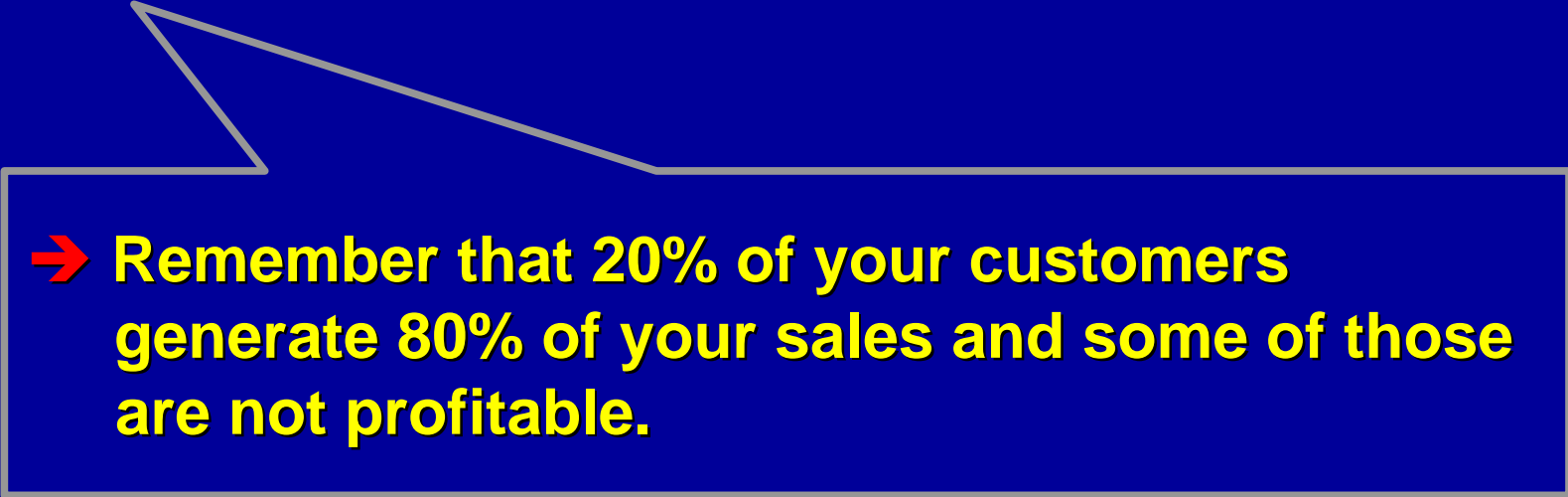
Operational Levers of Success

1. Focus your plant(s) on your core products.

- 
- Understand the volume relationships in your product line.**
 - Select the type(s) of product focus you can use:**
 - > Product line**
 - > Part family**
 - > Volume**
 - Divide your plants into product focused work groups and/or “plants within a plant”.**

Operational Levers of Success

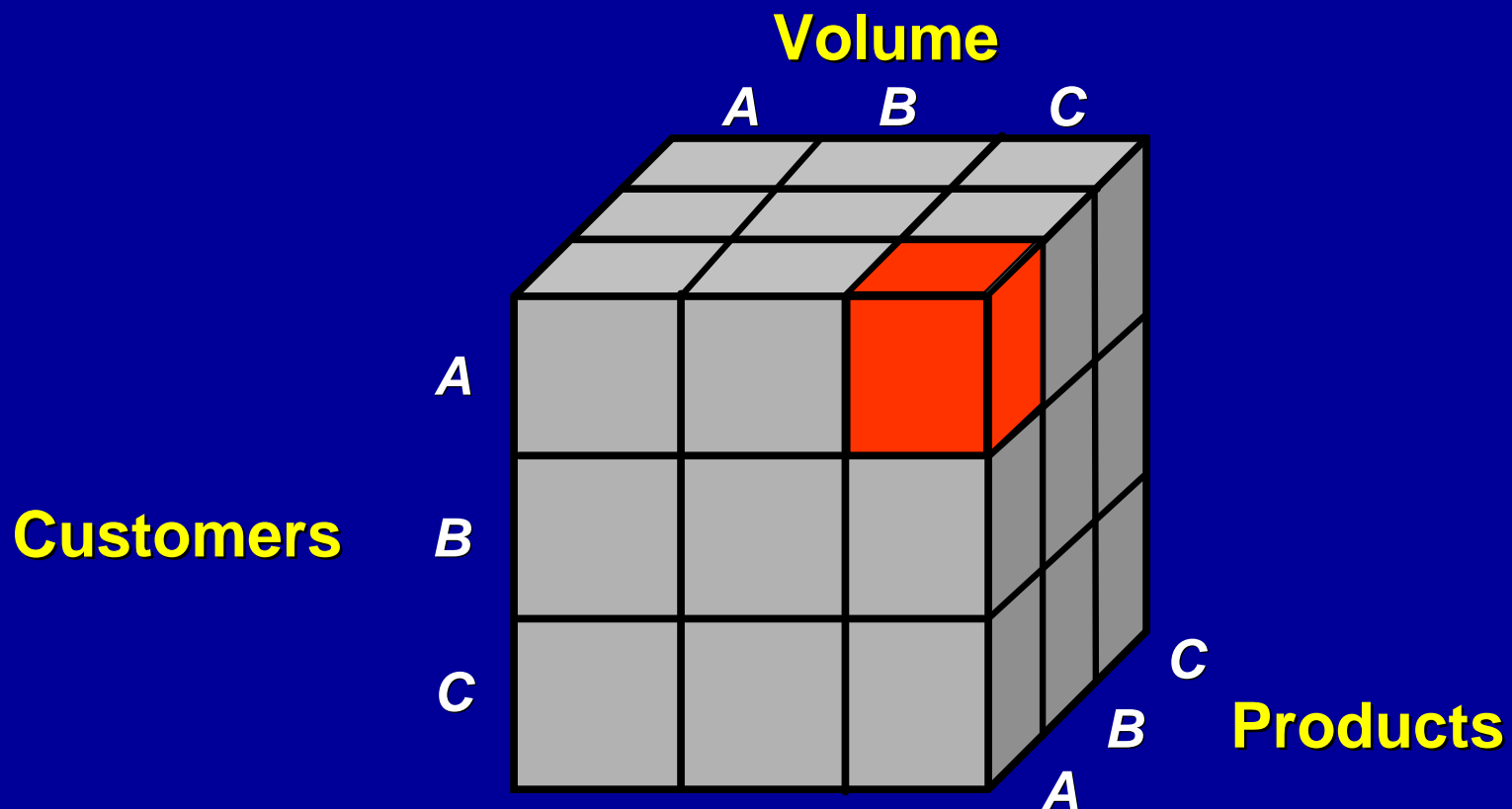
1b. Focus on your profitable core customers.



→ Remember that 20% of your customers generate 80% of your sales and some of those are not profitable.

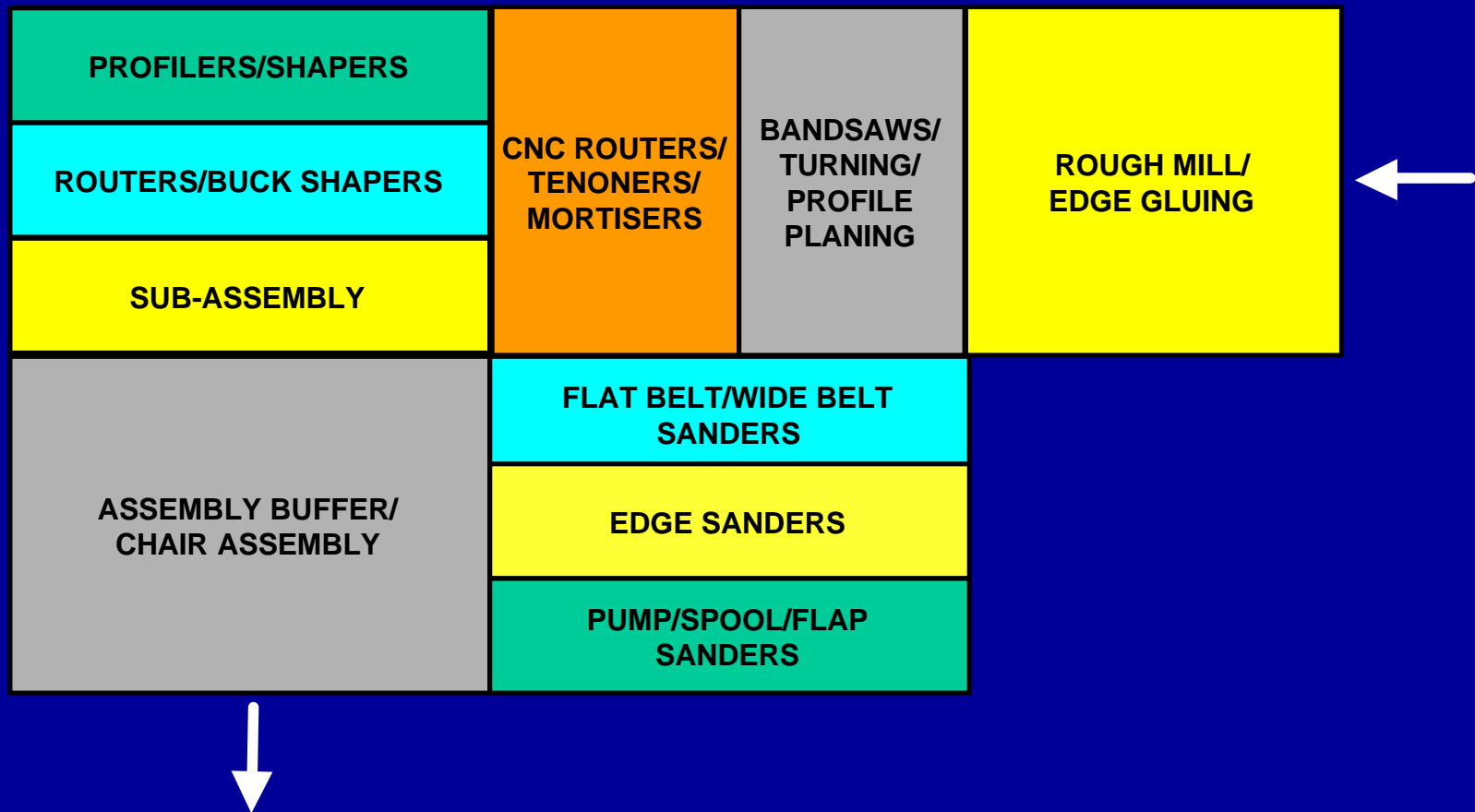
Speed from Focus

Plants can achieve faster cycles by focusing on *product, volume, and customer...*



An Example of Product Focus

Many plants have organized parts machining operations by process...



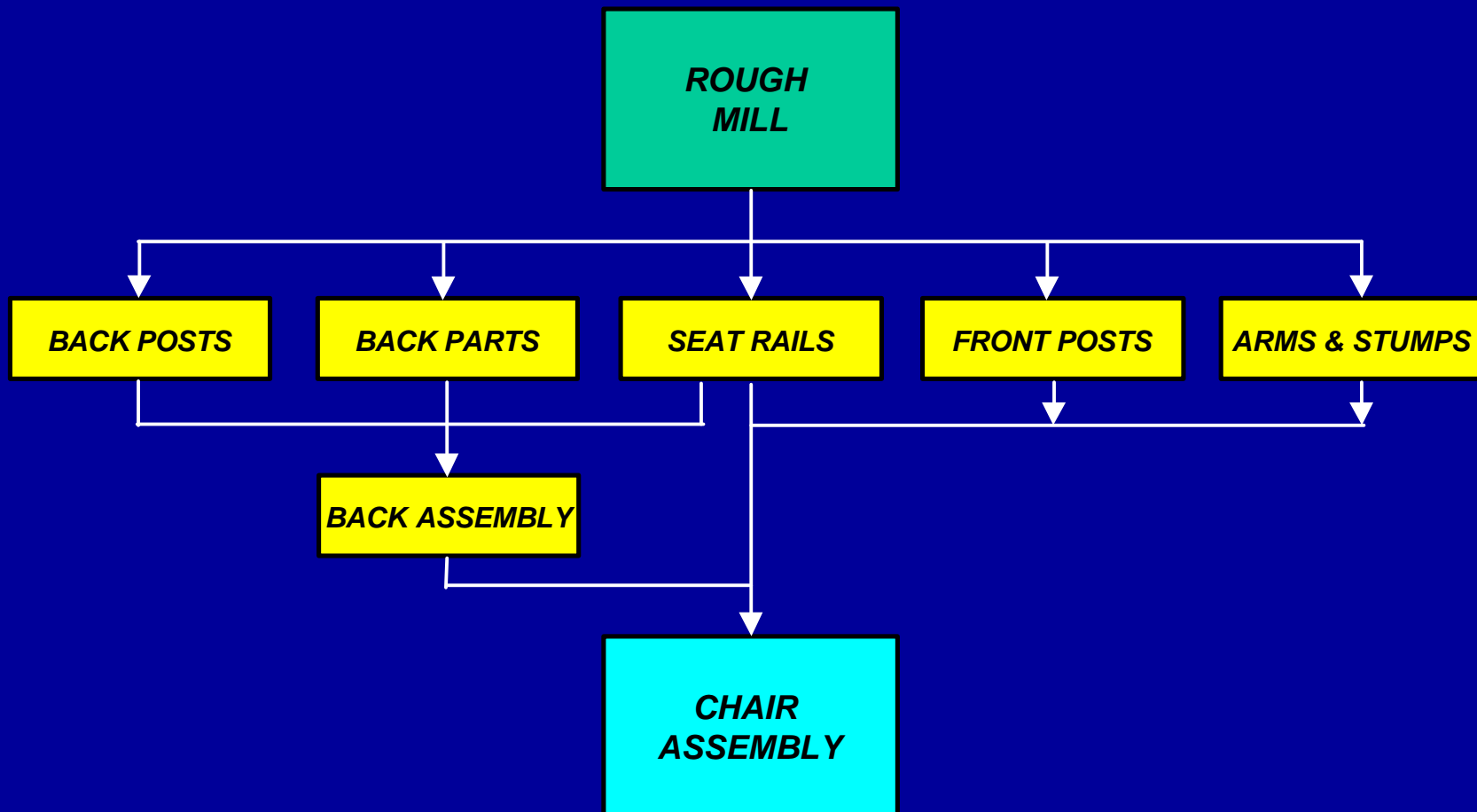
Organizing By Product

Products often exhibit part family standardization...



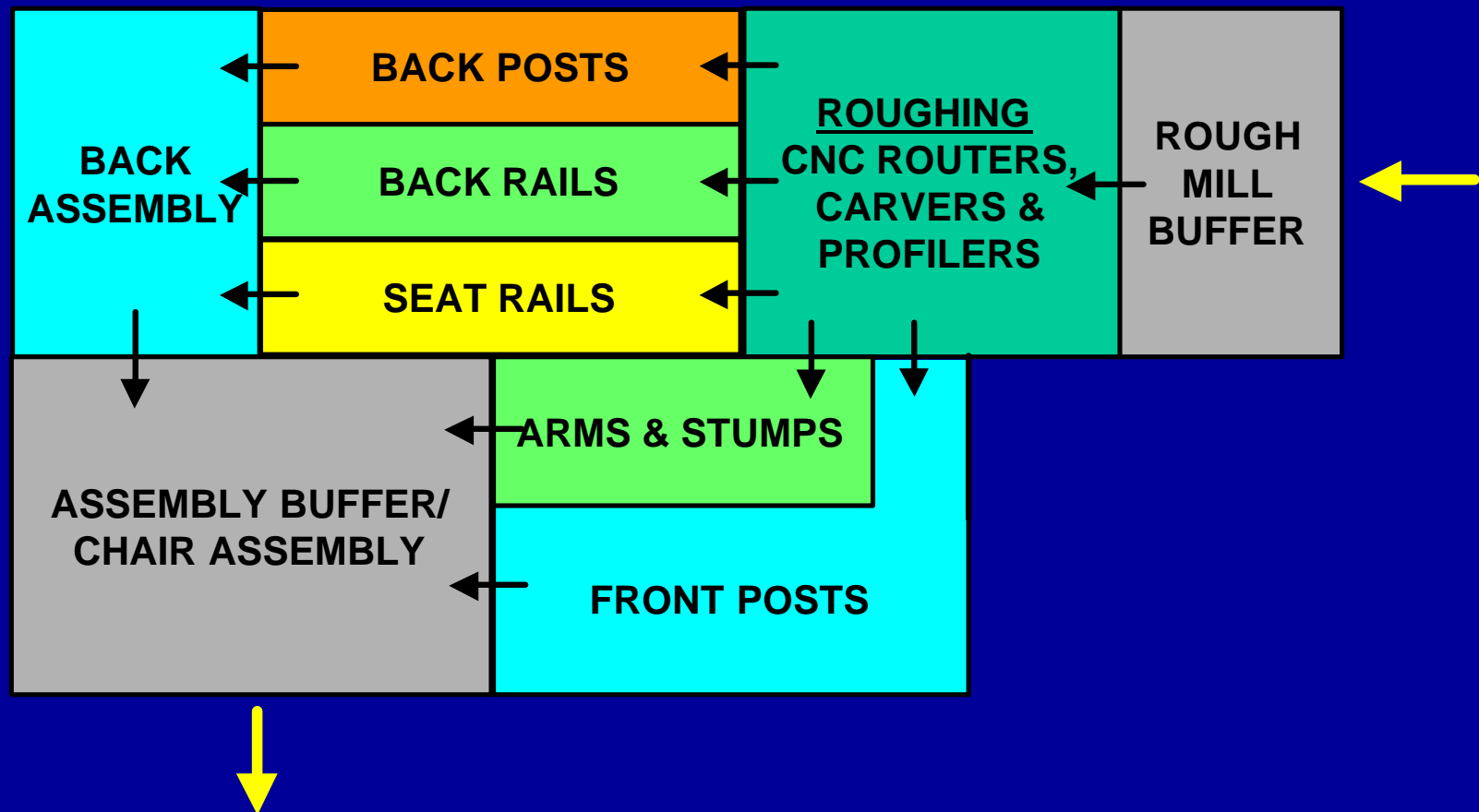
Product-Focused Layouts

Efficiency can be gained by organizing this plant by product or by component type...



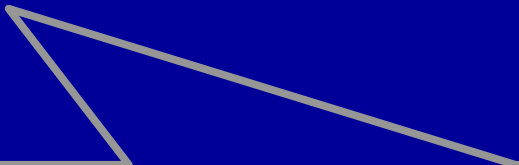
Product-Focused Layout

Reorganize by part family to reduce handling, increase teamwork, and reduce complexity...




Operational Levers of Success

2. Know your real costs.

- 
- Are you the “lowest cost” supplier in the value chain of your parts, end products, and related services?**
 - What are your material yields?**
 - What are your attrition rates?**
 - What should your labor costs be?**

Operational Levers of Success

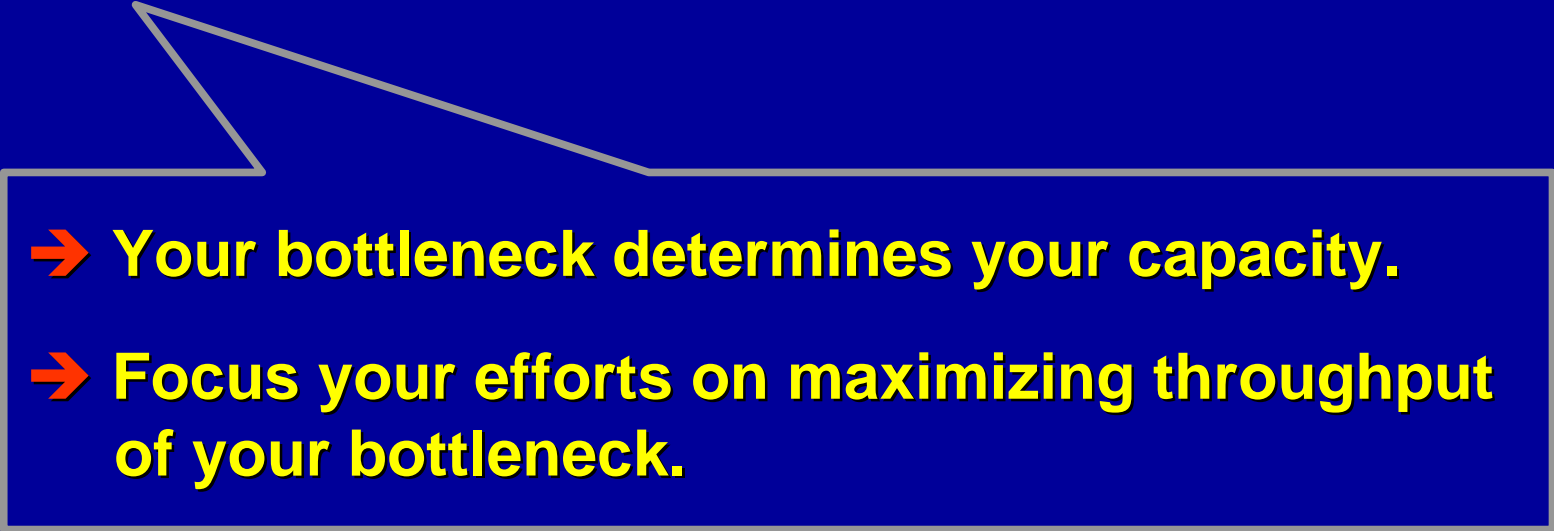
3. Capitalize on your manufacturing strengths.



→ Focus your efforts and capital on doing those tasks that you do well and buy the rest.

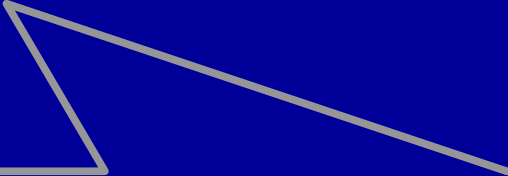
Operational Levers of Success

4. Manage your bottleneck.

- 
- Your bottleneck determines your capacity.**
 - Focus your efforts on maximizing throughput of your bottleneck.**

Operational Levers of Success

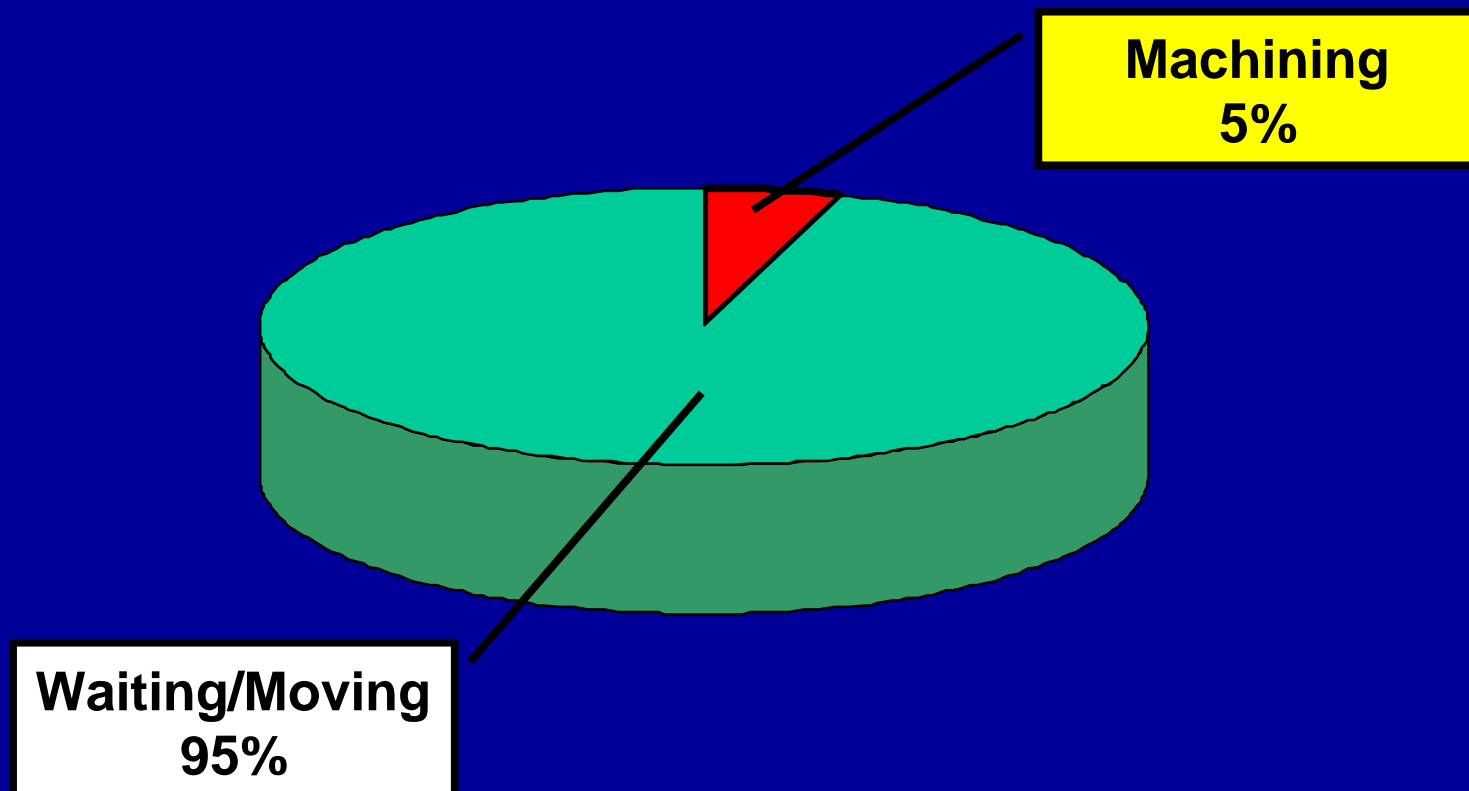
5. Get your plant on schedule.



→ An initiative to be on schedule forces correction of your inefficiencies resulting in better inventory management and customer service.

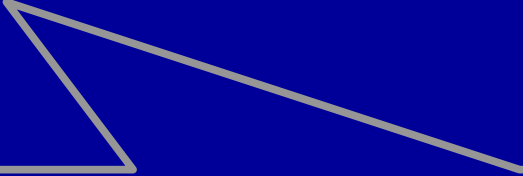
Being On Schedule

Being on schedule reduces the amount of time when no value is being added to your product...



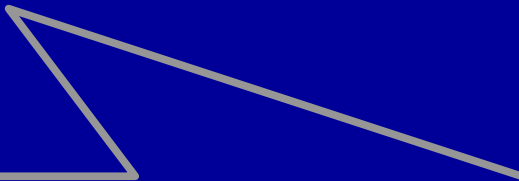
Operational Levers of Success

6. Engineer your products and plant floor carefully.

- 
- Standardization reduces cost.**
 - When parts fit, assembly labor is minimized.**
 - On the plant floor there should be a place for everything and everything in its place.**

Operational Levers of Success

7. Choose machinery to match your demands.

- 
- Be prepared to customize conventional machines.**
 - View machines touted as bigger and faster with caution.**
 - Match machines to your volume demands.**
 - Use conventional machinery creatively.**

Creative Use of Conventional Machinery




Creative Use of Conventional Machinery



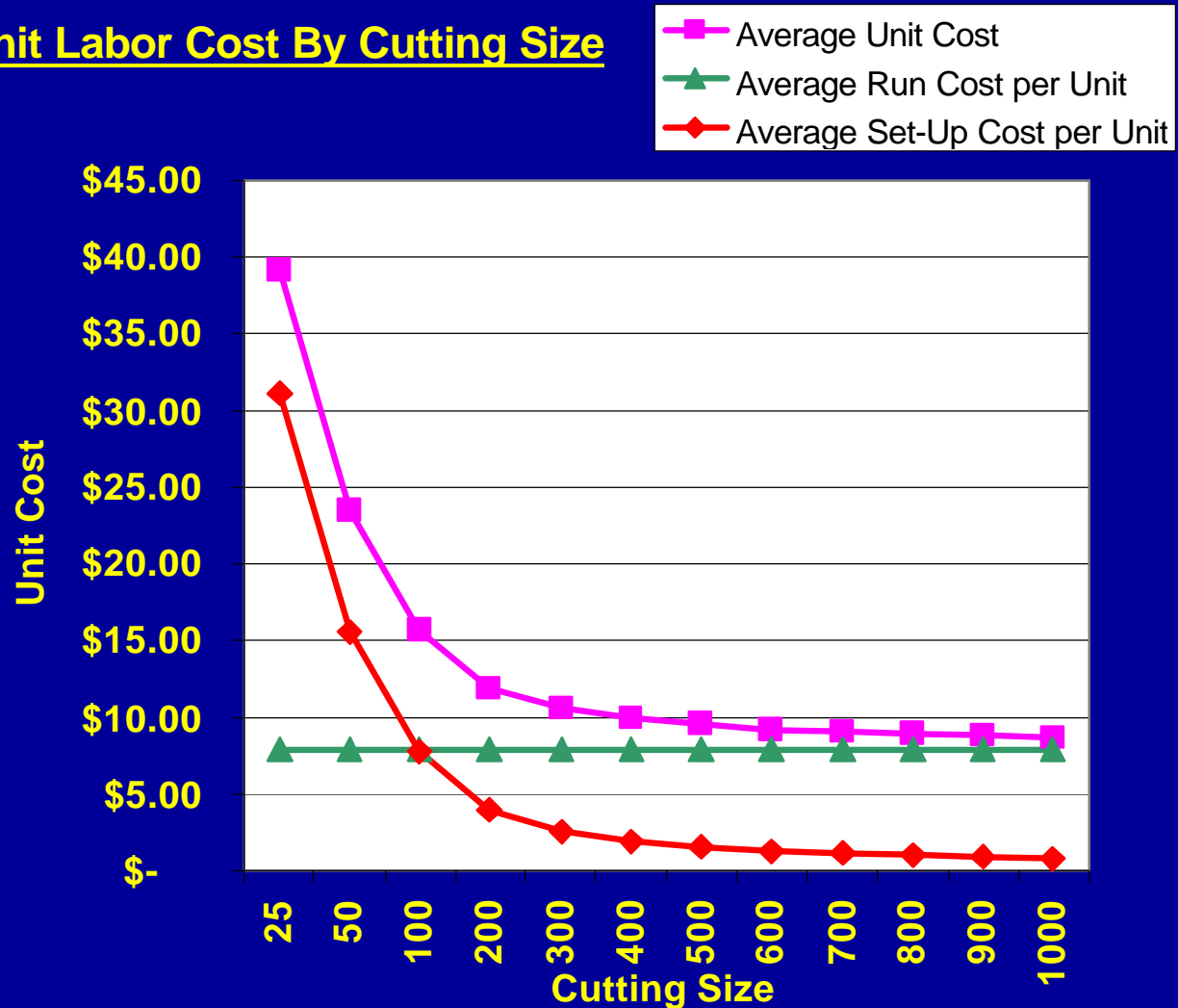
Operational Levers of Success

8. Choose machinery to match your demands.

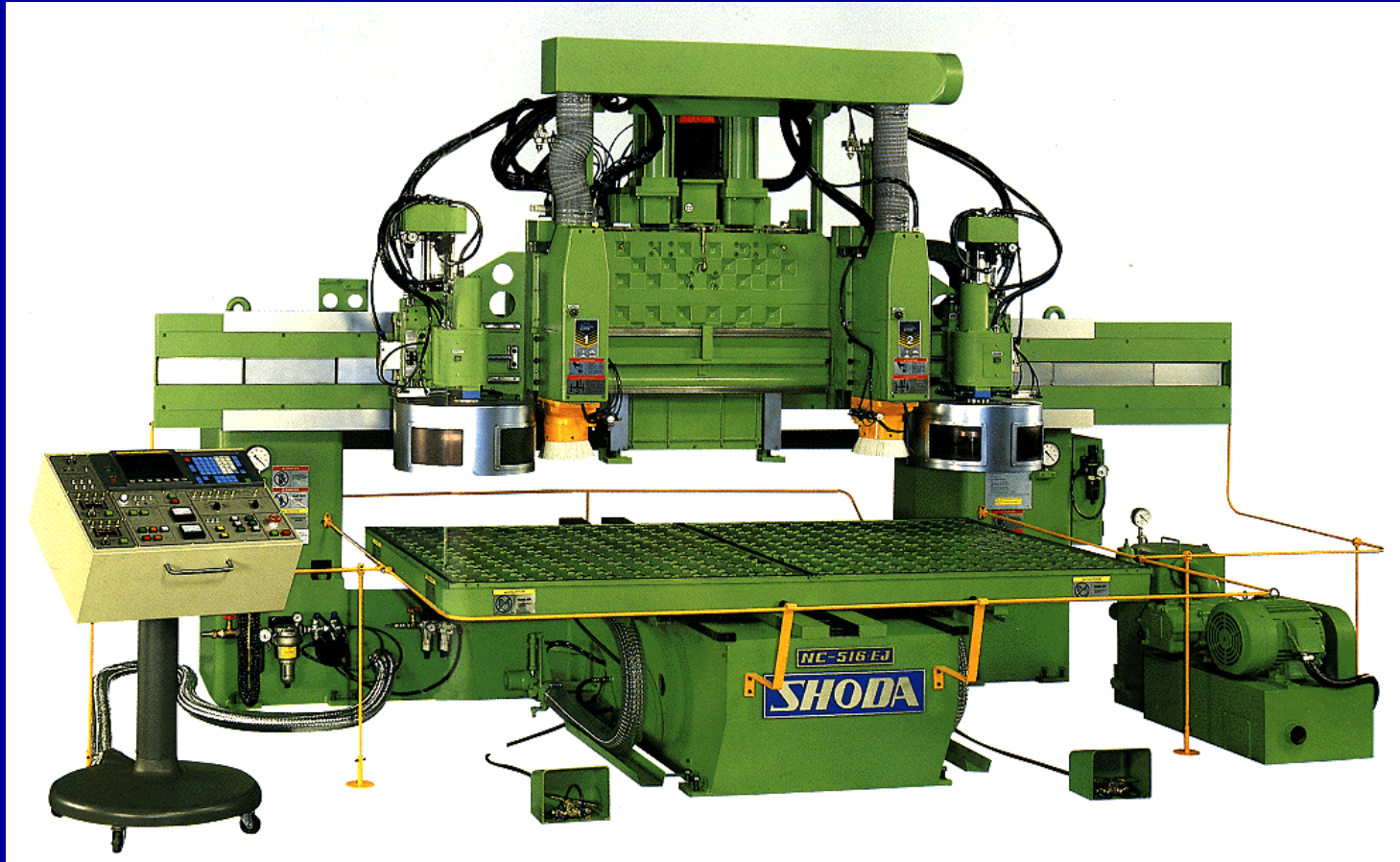
- 
- Be prepared to customize conventional machines.**
 - View machines touted as bigger and faster with caution.**
 - Match machines to your volume demands.**
 - Use conventional machinery creatively.**
 - Understand your set-up economics.**

Set-Up Economics

Unit Labor Cost By Cutting Size



Multi-Function/Quick Set-Up Machinery



Easy To Set-Up Machines

Single-sided machines are best for small orders...



Operational Levers of Success

9. Size and locate inventory wisely.

For most producers inventory is a necessity.

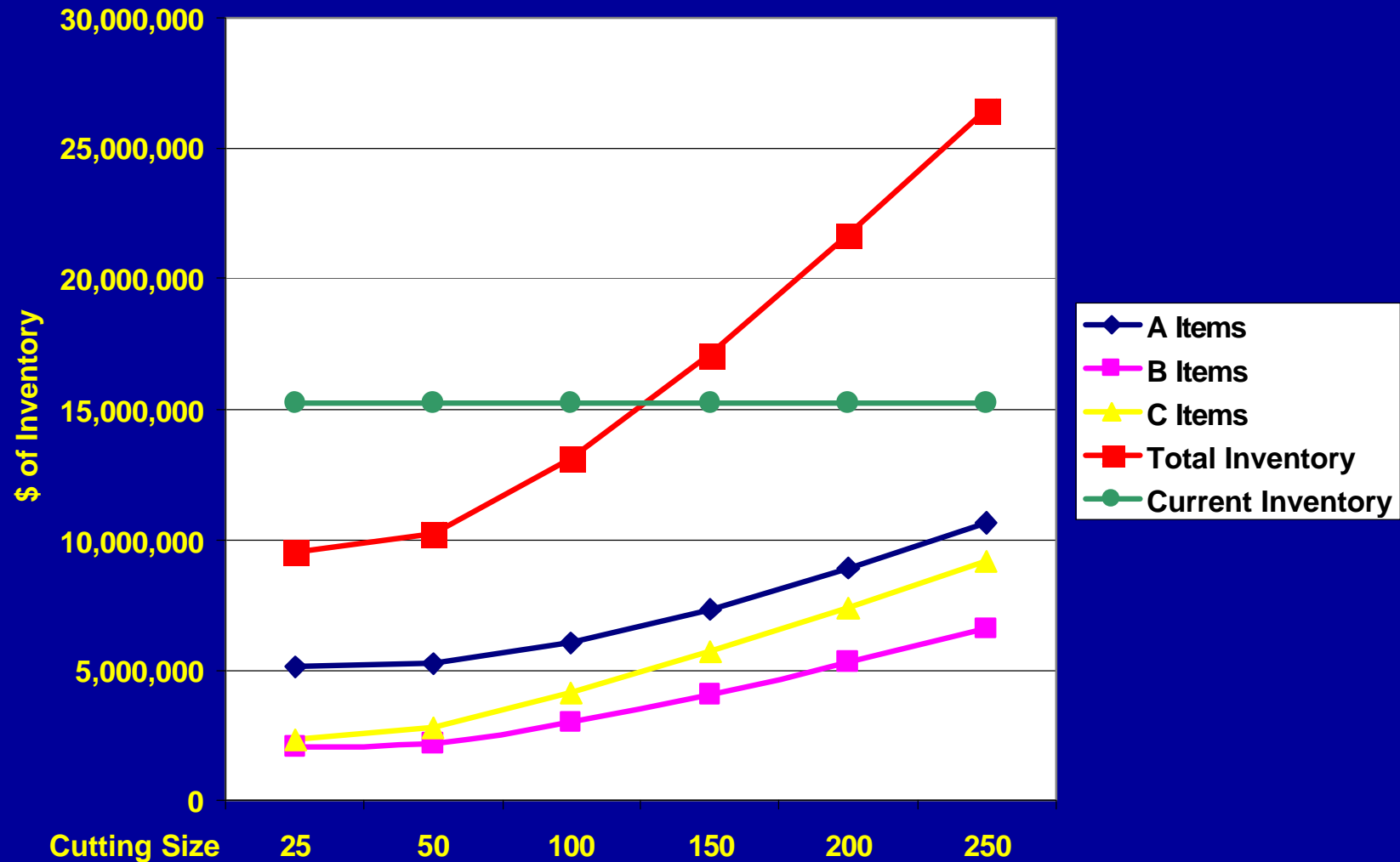
Your job is to...

- locating inventories through your process**
- sizing the inventories**

intelligently to optimize customer service.

Inventory Relationship To Cutting Size

Finished Goods Inventory By Cutting Size



Operational Levers of Success

10. Educate, inform, and motivate your workers.

Success depends on people who...

- **Care if you succeed.**
- **Know how to help you succeed.**
- **Have reasons to learn new skills.**

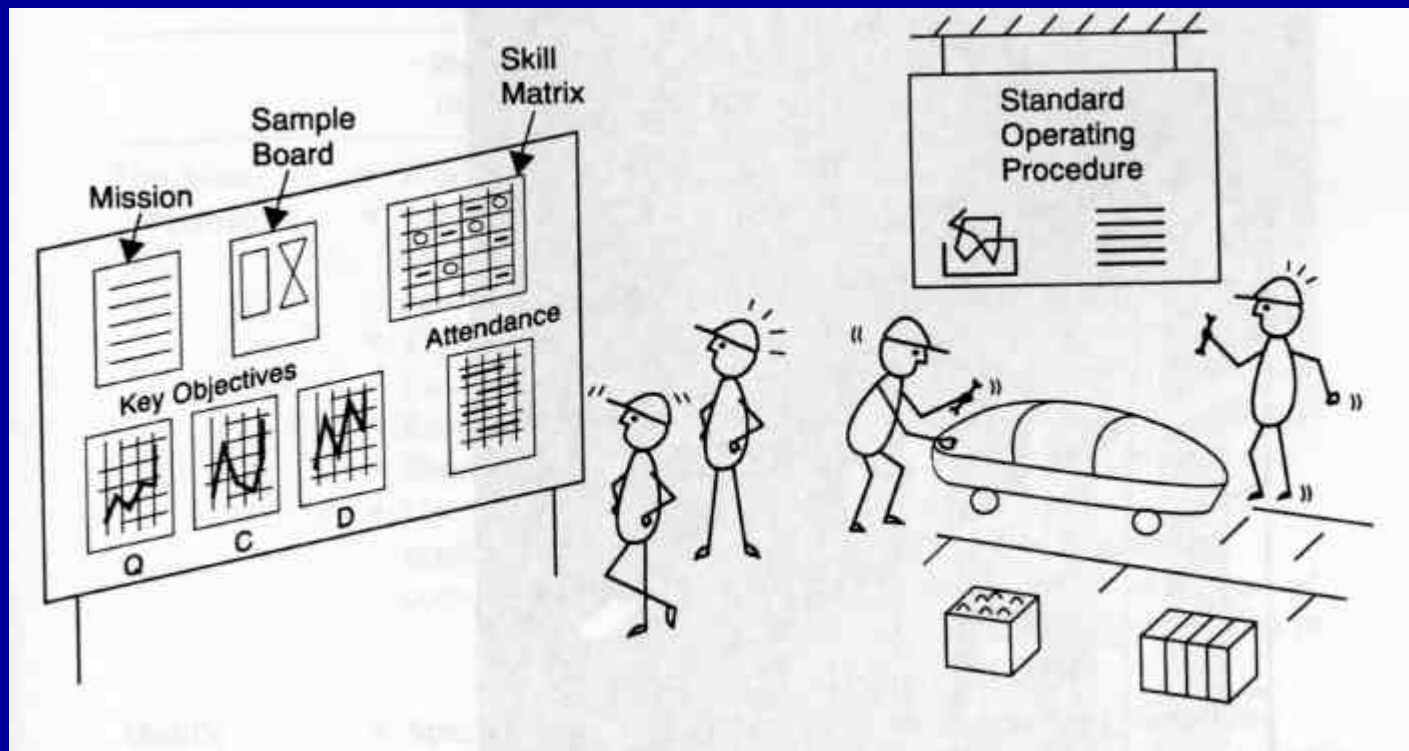
Enlightened People Management

Don't be like Dilbert's boss...



Visual Instruction & Motivation

Operating standards and performance expectations are clearly communicated to the plant floor...

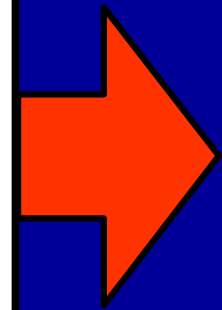


Source: *The New Shop Floor Management*, Suzuki

Enlightened People Management

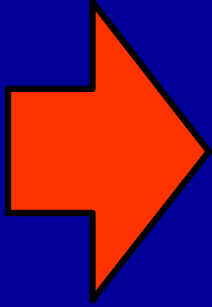
Industry Week's Best Plants educate and motivate their work force...

- Annual Days of Training per Employee = 6
- Annual % Labor Costs for Training = 2.5%
- Empowered Work Teams = 88% of Work Force
- Pay For Skills = 66% of Plants
- Emphasis on Cross Training = 100% of Plants



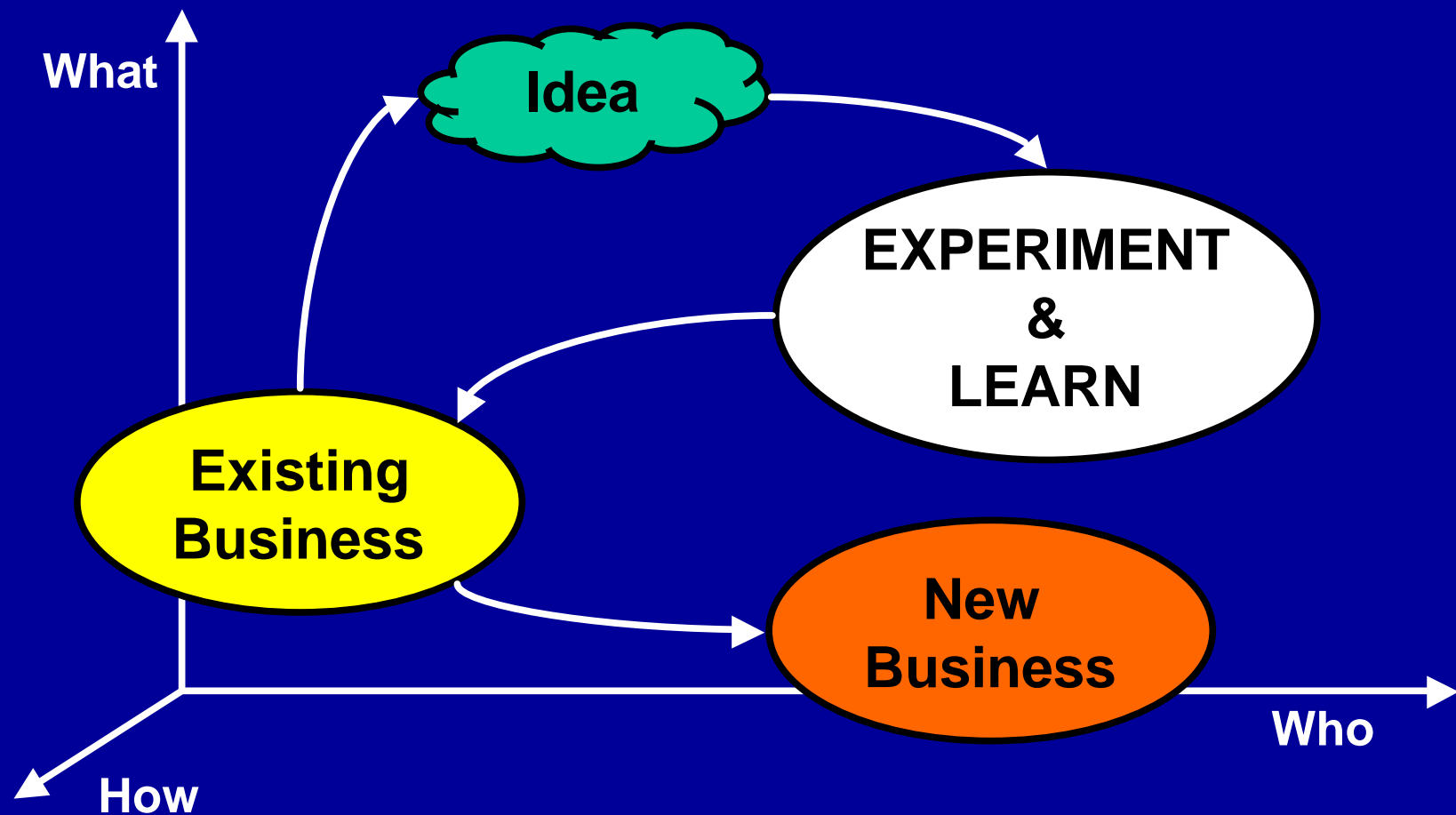
Enlightened People Management

with tangible results...



- **Warranty Costs = 0.38% of Sales**
- **Labor Turnover = 3.9%**
- **Annual Sales per Employee = \$258,000**

Imagineering



Imagineering at Starbucks



Create a new experience...

Lessons From Starbucks

- **Don't solve today's problems with yesterday's answers.**
- **Don't count on sales and marketing to provide insight into the needs and frustrations of your customers.**
- **Compete on an attribute other than price.**
- **Start experimenting!!**

Staying Out Of The No Profit Zone

- **Imagineering**
- **Experimenting**
- **Planning**
- **Executing**