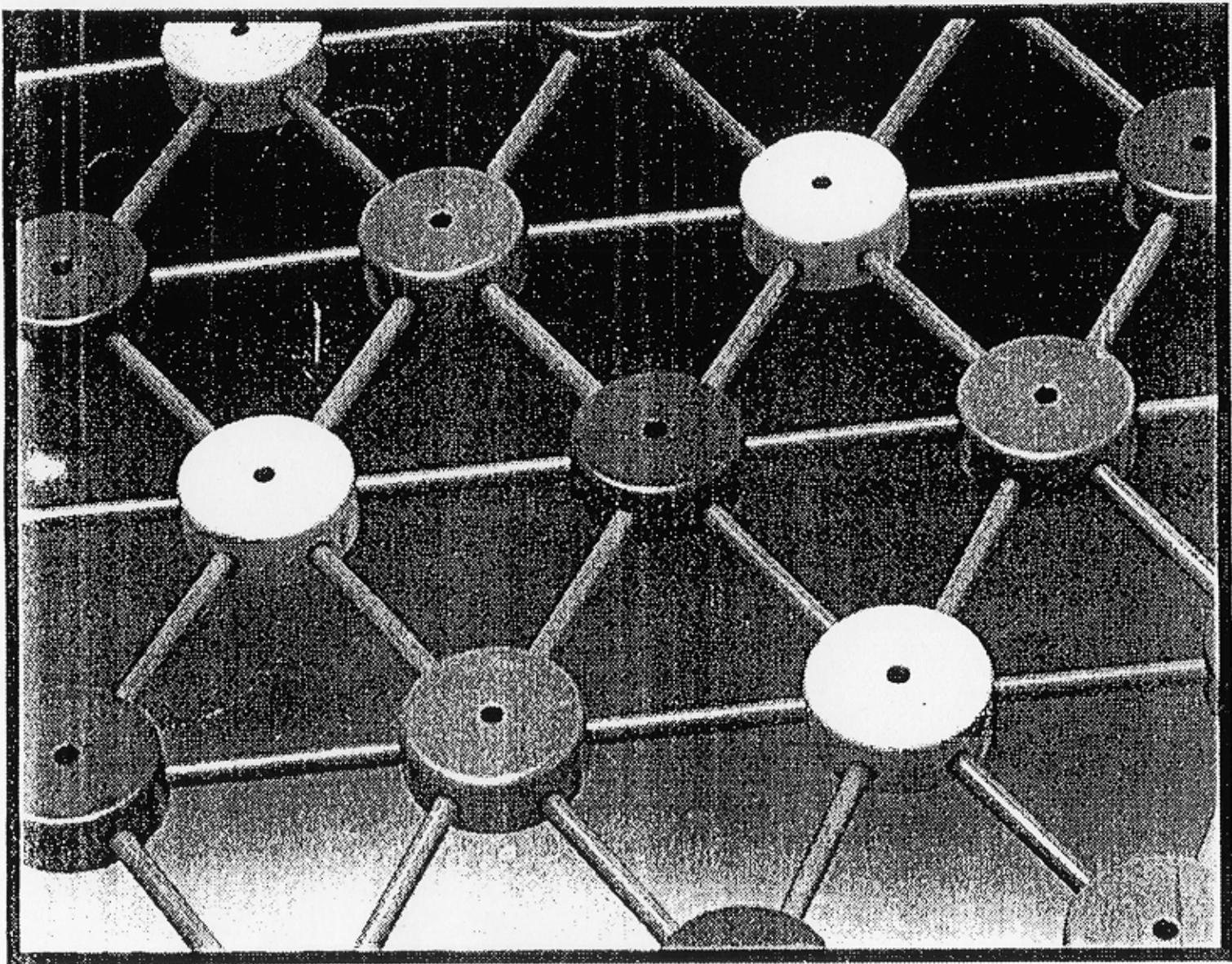


**Appendix 2**  
**Allied Signal's "Introduction to Benchmarking" and The Benchmarking Process**

# BENCHMARKING



 **AlliedSignal**  
AEROSPACE



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# Introduction to Benchmarking

A Facilitated Approach for Using Benchmarking  
To Achieve Improved Process Performance

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# Outline

- I. Applications for Benchmarking
  - II. Definitions
  - III. Understanding the Cost/Benefit Analysis
  - IV. Critical Success Factors for Benchmarking
- Appendix A: Federal Manufacturing and Technologies

# I. Applications for Benchmarking

Benchmarking objectives

Identify targets of opportunity

Indicators of when benchmarking  
would be an appropriate tool

Links to the 9-step PI/PS process

# Benchmarking Objectives

- Challenge internal paradigms on process performance
- Understand opportunities and methods for improvement
- Identify strengths within your organization
- Learn from the leadership experience of others
- Aid in prioritizing and allocating your resources
- Set realistic, aggressive goals for improvement

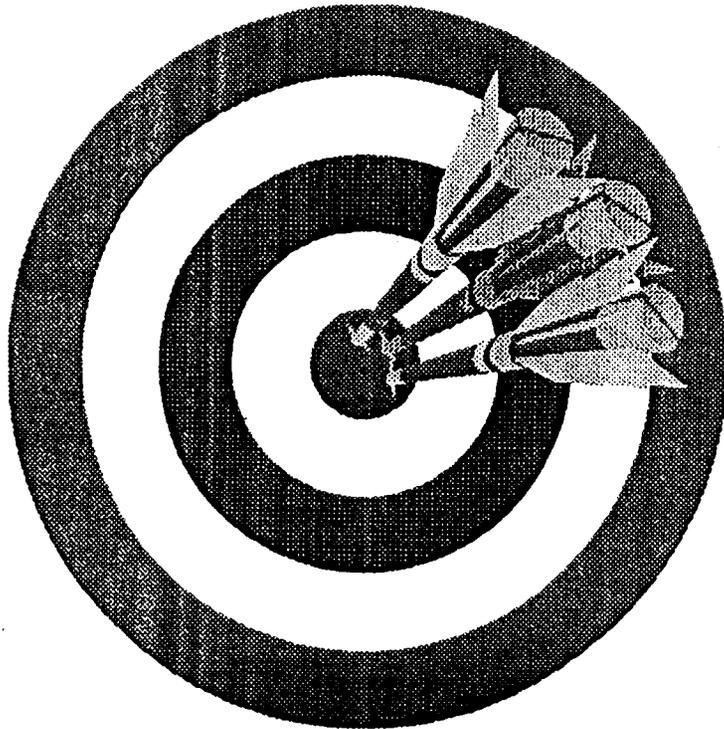
# Why Benchmark?

## *Let's Compare Scenarios*

	<b>Without Benchmarking</b>	<b>With Benchmarking</b>
<b>DEFINING CUSTOMER REQUIREMENTS</b>	<ul style="list-style-type: none"> <li>• Based on history/gut feel</li> <li>• Acting on perception</li> </ul>	<ul style="list-style-type: none"> <li>• Based on market reality</li> <li>• Acting on objective evaluation</li> </ul>
<b>ESTABLISHING EFFECTIVE GOALS</b>	<ul style="list-style-type: none"> <li>• Lack external focus</li> <li>• Reactive</li> <li>• Lagging industry</li> </ul>	<ul style="list-style-type: none"> <li>• Credible, customer-focused</li> <li>• Proactive</li> <li>• Industry leadership</li> </ul>
<b>DEVELOPING TRUE MEASURES OF PRODUCTIVITY</b>	<ul style="list-style-type: none"> <li>• Pursuing pet projects</li> <li>• Strengths and weaknesses not understood</li> </ul>	<ul style="list-style-type: none"> <li>• Solving real problems</li> <li>• Performance outputs known, based on best in class</li> </ul>
<b>BECOMING COMPETITIVE</b>	<ul style="list-style-type: none"> <li>• Internally focused</li> <li>• Evolutionary change</li> <li>• Low commitment</li> </ul>	<ul style="list-style-type: none"> <li>• Understand the competition</li> <li>• Revolutionary ideas with proven performance</li> <li>• High commitment</li> </ul>
<b>INDUSTRY PRACTICES</b>	<ul style="list-style-type: none"> <li>• Not invented here</li> <li>• Few solutions</li> <li>• Continuous improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Proactive search for change</li> <li>• Many options</li> <li>• Breakthroughs</li> </ul>

# What Should We Benchmark?

## *Identifying Targets of Opportunity (Continued)*



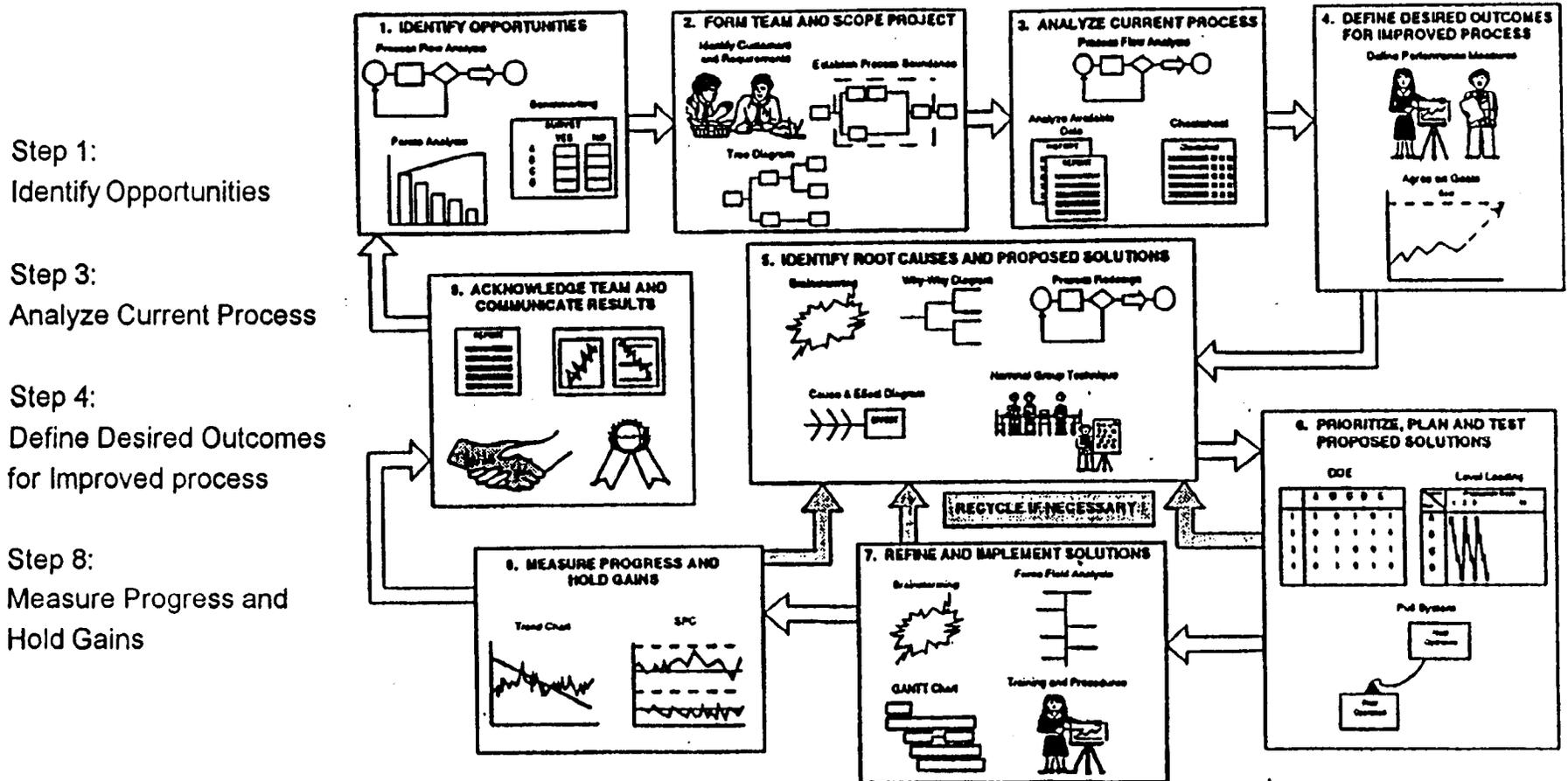
Evaluate each target:

- Is this process important to our customers?
- Would improvements in this process support our business goals and objectives?
- Is the process owner committed to making changes in this process?

*(Do we know who the process owner is?)*

# Where Benchmarking Fits In

## The 9-Step Process Improvement/Problem Solving Model



## II. Definitions

AlliedSignal and others

Benchmarking is/is not

Types of benchmarking

# Definitions

from Webster's Collegiate Dictionary

## Benchmark (n.)

- a mark on a permanent object indicating elevation and serving as a reference in topographical surveys and tidal observations
- a point of reference from which measurements may be made
- *something that serves as a standard by which others may be measured*

# Benchmarking Companies

*(Continued)*

## **IBM:**

The ongoing process of comparing one's own process, practice, product, or service against the "best" known similar activity. Then, challenging but attainable goals can be set and a realistic course of action implemented to efficiently become and remain the best of the best in a reasonable time.

## **Texas Instruments:**

Benchmarking is a quality improvement tool that enables us to measure our products, services, and practices against those of our toughest competitors or other leading companies. Once a benchmark is identified, it provides a "stretch goal" or vision of what is possible for business process improvements.

# Benchmarking Is/Is Not

Is:	Is Not:
<ul style="list-style-type: none"> <li>• Systematic investigation of best practices</li> <li>• Process-oriented</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Industrial tourism/industrial espionage</li> <li>• Justifying the status quo</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>

# Types of Benchmarking

- **Internal**
  - Comparisons between yourself and similar operations within your own organization
  
- **Competitive**
  - Comparisons among competitors for a specific product
  
- **Functional**
  - Comparisons to similar functions within the same industry
  
- **Generic**
  - Comparisons of processes independent of industry or overall functions

## **III. Understanding the Cost/Benefit Analysis**

- Associated costs
- Expected benefits
- When you should/shouldn't use benchmarking

# Associated Costs

- **Costs associated with conducting a benchmarking study:**
  - Direct labor for team members
  - Data gathering/data analysis
  - Research to identify potential benchmarking partners
  - Publication and distribution of final report
  -
  
- **Costs *occasionally* associated with conducting a benchmarking study:**
  - Training on specific skills and tools
  - Long-distance telephone and fax charges
  - Travel expenses
  - Consultant fees for third-party competitive benchmarking
  -

**And, of course, implementation costs!**

# Expected Benefits

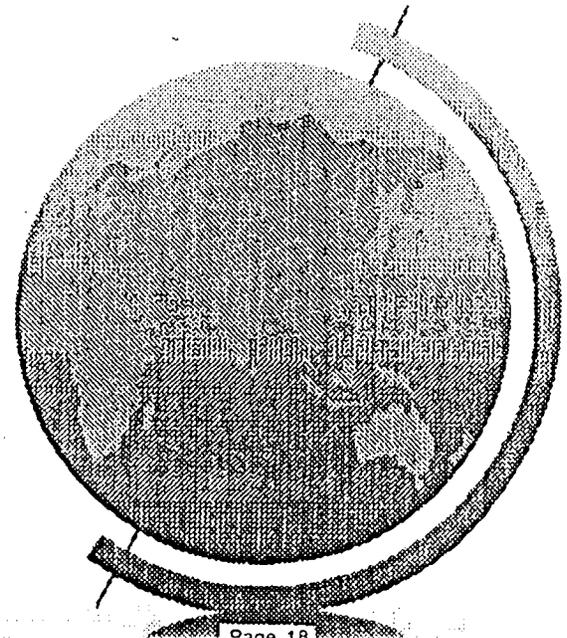
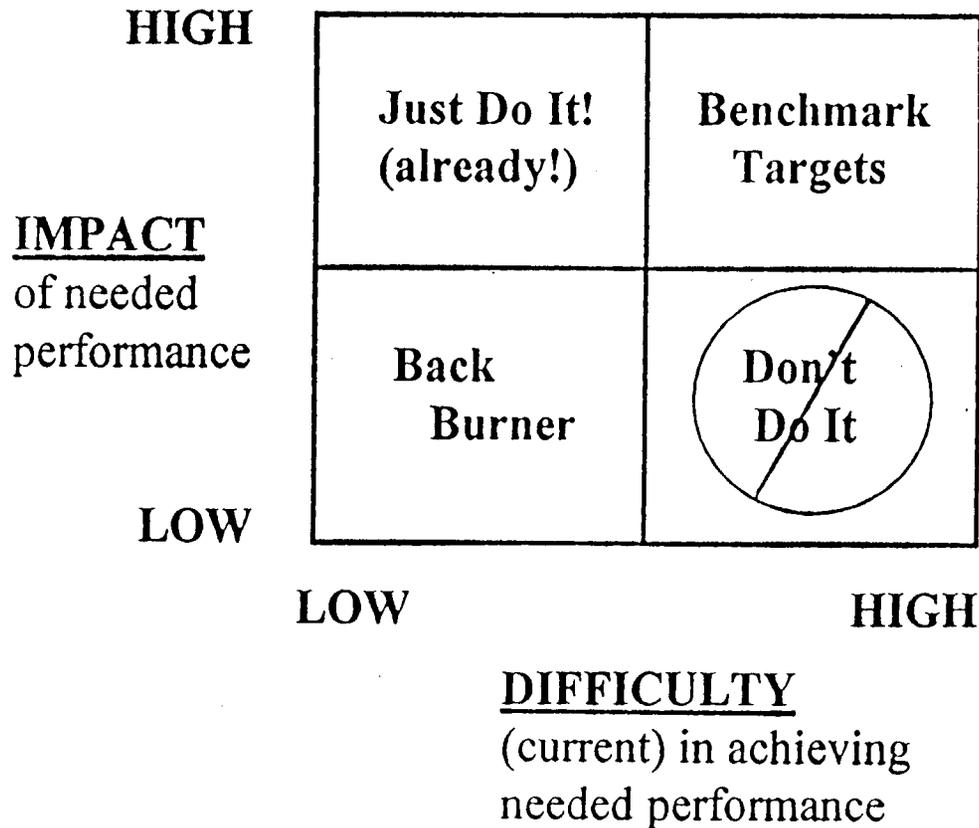
- Improving processes that are critical to our business
  - Enhanced customer satisfaction
  - Cycle time reduction
  - Cost reduction
  - Enhanced employee satisfaction
- Establishing market-driven goals
- Gaining professional development and personal enthusiasm from seeing "the best" in action
- Identifying additional opportunities for improvement beyond the scope of the benchmarking project
- Establishing professional contacts
- Challenging "the way it's always been done"
- Becoming more competitive
- Shortening the process improvement cycle itself (accelerated learning)

# When You Should/Shouldn't Use Benchmarking

Should	Shouldn't
<ul style="list-style-type: none"> <li>• The targeted process is critical to your organization's success</li> <li>• Analysis indicates your performance is not competitive</li> <li>• Significant growth opportunities exist that you currently cannot take advantage of</li> <li>• You understand your current process and its performance measures</li>   <li>• The process owner is committed to change (even radical change)</li> <li>• Stakeholders will be part of the benchmarking team</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• You aren't targeting a process</li>   <li>• You don't know how your performance compares with the competition</li> <li>• You don't know what your customers require from this process</li> <li>• You haven't mapped your own process and you have no metrics or don't understand them</li> <li>• There is strong organizational resistance to changing the process</li> <li>• Only one or two people will conduct the study</li> <li>•</li> <li>•</li> <li>•</li> <li>•</li> </ul>

# BENCHMARKING

## Decision Grid



## **IV. Critical Success Factors for Benchmarking**

**Management support**

**Barriers to successful benchmarking**

**Understanding the current process**

# Management Support for Benchmarking

## *What You Need to Make Benchmarking Effective*

- **Focus** on the processes that are critical to your business
- **Desire** to use benchmarking in conjunction with strategic planning
- **Willingness** to admit that you're not the best
- **Openness** to new ideas from potentially unexpected sources
- **Commitment** to provide resources and to overcome resistance to change
- **Recognition** given to successful benchmarking teams
- **Understanding** of the benchmarking process
- **Communication** to the organization about the objectives of the benchmarking project

# Barriers to Successful Benchmarking

- Targeted process not critical to the business
- Unreasonable fear of sharing information with benchmarking partners
- Inadequate resources committed
- Assumption that you always have to travel to do benchmarking
- Not doing your "homework" before contacting benchmarking partners
- Benchmarking a company rather than a process
- Unwillingness to change (NIH syndrome)
- Poor selection of benchmarking partners
- Lack of up-front plans for implementing findings and follow-through to implementation
- Not involving key stakeholders in the benchmarking project
- Expecting results too quickly

# Understanding the Current Process

## *Doing Your "Homework"*

- Use process mapping tools to define your current process
  - Top-down flowchart
  - Wall map
  - Product process map (or value-added flow analysis)
- Identify customer expectations for your process
  - Review existing process performance measurements against customer expectations
- Define process performance
  - Cycle time
  - Defects
  - Cost
- Use analysis tools to understand the causes for inefficiencies in the process
  - Cause and effect diagrams
  - Pareto diagrams
  - Run charts
  - Control charts
- Identify targets based on analysis
  - Entitlement (cycle time)
  - Competitors' performance
  - Customer expectations



# Appendix A

- Vision
- Mission
- Our Goal
- Business Drivers
- FM&T Initiative Integration



## Vision

We will be a vital and distinctive leader in applying technologies that advance the Department of Energy's mission and strengthen U.S. Economic competitiveness.

# Mission

- Supporting continued viability of the nuclear weapons defense capability
- Conducting our business according to the highest ethical standards and in concert with the vision, mission, and core values of the Department of Energy.
- Partnering with the national laboratories, and other federal agencies, academia, and industry to ensure perpetual renewal of the national technology base.
- Sharing our expertise, experience, and technology with industry to enhance U.S. economic competitiveness and environmental technology.
- Providing a safe, healthy, and environmentally clean workplace.
- Advancing the social and economic well-being of the community.



## Our Goal

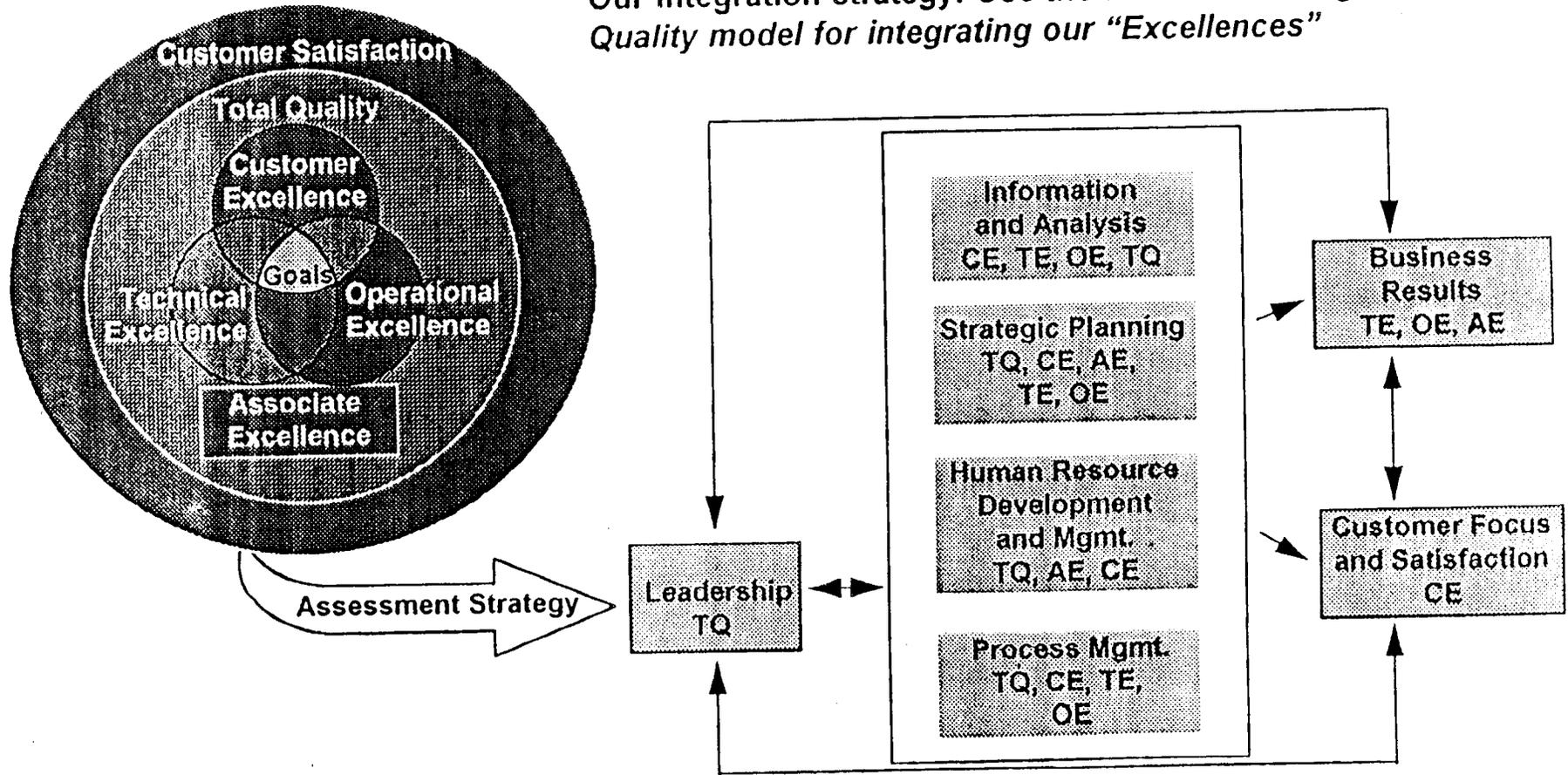
- Continuous improvement, involving everyone, in everything we do.

# Business Drivers

- Customer Satisfaction
- Associate Satisfaction
- Product and Process Quality
- ES&H Performance
- Financial Performance
- Growth

# Integration of Initiatives

Our integration strategy: *Use the Malcolm Baldrige Quality model for integrating our "Excellences"*



# Making Contact

- Initial contact must establish expectations
  - Mutual benefit
  - Effective/disciplined use of information
  - Cultural fit
  - Thorough preparation
  - Willingness to share
  - Respect for any issues of confidentiality

# Contacting Potential Benchmarking Partners

## *Checklist for Initial Phone Call*

1. Initial contact:

Identify the right person

Gain interest

Other benefits

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2. Clarification:

Establish what is to be benchmarked

Establish understanding of scope

Set procedure and timeline

Establish expectations

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3. Exchange:

Clarify what you want and what you'll share

Identify what you will provide in exchange

Establish information exchange for next step

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4. Action Plan:

Agree on actions, timing, roles and responsibilities

---

# Establishing a Relationship with Benchmarking Partners

## *Getting to Know You (Continued)*

- You may also want to offer the following information about your company and may want to ask for similar information from your benchmarking partners
  - Brochures describing the company
  - Organization charts
  - Company newsletters

## IV. The Site Visit and Beyond

- Preparing for benchmarking site visits
- Conducting benchmarking site visits
- Following-up after benchmarking site visits
- Learning from the best
- Last steps

**...focusing on *RESULTS***

# Benchmarking Site Visits

## *Preparation -- in advance*

- Get agreement on the agenda
- Send a confirmation letter (restate your intentions, ensure that the right people are present, and permit your host to review your questions)
- Clarify any issues of confidentiality
- Ensure that each member of your team understands in what areas he/she has responsibility

# Benchmarking Site Visits

## *During the site visit*

- Pay attention during introductions (names, responsibilities, experience)
- Ask to tour the facilities, if possible, in addition to the areas involved in the subject process
  - Clarify the protocol for talking with employees/associates during the tour
- Take thorough notes
- Use breaks and lunch to build rapport
- Be observant; look for the enablers
- Be prepared for the unexpected

# Benchmarking Site Visits

## *Follow-up*

- Send a letter of appreciation
- Ensure that any concerns your partner raised have been addressed
- When completed, send a courtesy copy of your final report

# Learning From the Best

## *Translating Information into Action*

- Analyze the data and insights gathered from benchmarking partners
  - Compare process performance measurements
  - Review goals
  - Prepare a gap analysis
  
- Understand the factors that contribute to your partners' superior performance
  - Which can be adopted?
  - Which can be adapted?
  
- Map the "to-be" process
- Use the project management skills to identify tasks, resources, and schedule to implement process changes
- Identify who must be "sold" on process changes
- Implement and monitor process performance

# Last Steps

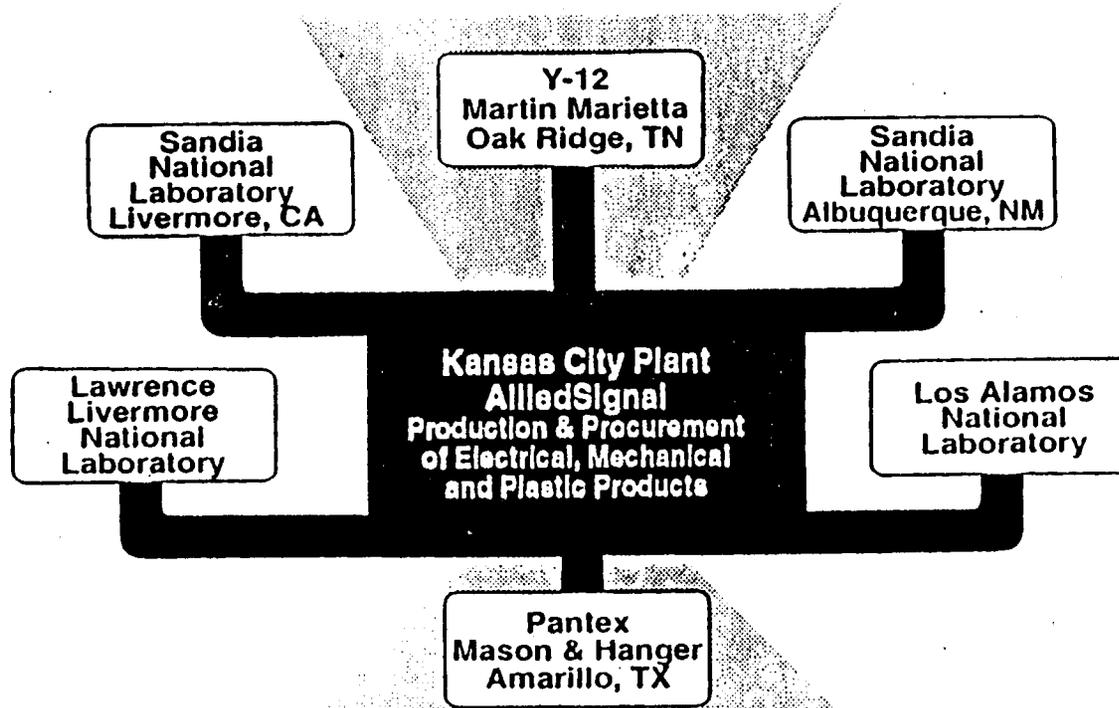
- Document the benchmarking study in a final report
  - Lessons learned
  - Capture variety of process information
- Communicate results
- Send final report to benchmarking partners
- Review process performance to ensure that goals are being met
- Identify other candidate processes for benchmarking
  - Potential for additional exchange with benchmarking partners
  - Build on success

# Key Customers

- Department of Energy
- National Laboratories
  - Department of Energy Core Mission is 87% of our business - DOE is other 10% of our business
- Department of Defense
- Other Federal Agencies
- United Kingdom
- Industrial Partners

# Weapons Complex

## DOE Schedules



## ARMED FORCES

# Tools of Benchmarking

## *Process Performance Measurements*

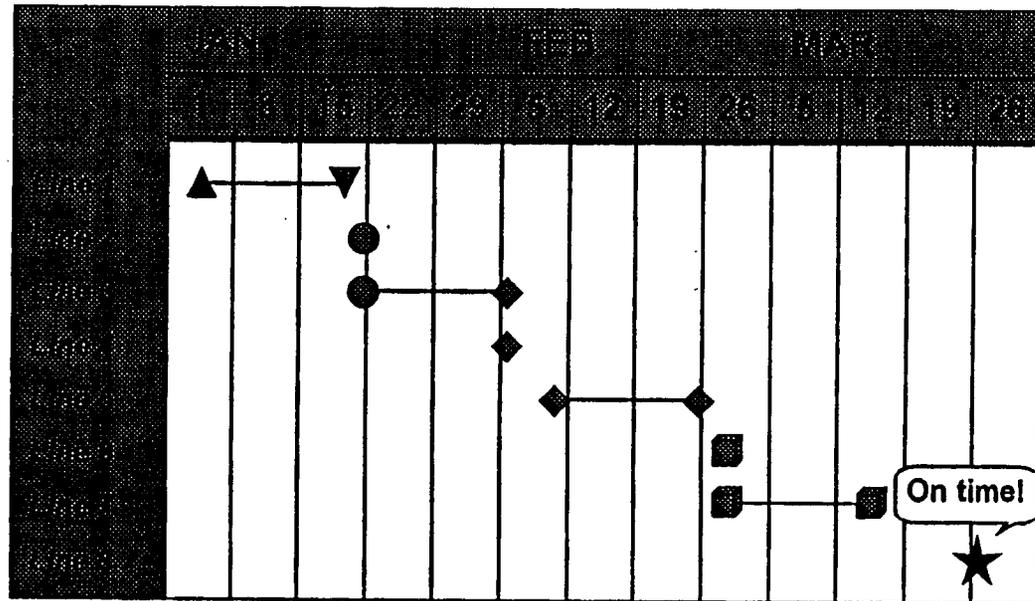
- Tied to customer expectations
- Aligned with strategic objectives
- Clearly reflective of the process (not overly influenced by other factors)
- Data easily obtained and understood
- Can be monitored over time
- Examples
  - Cycle time
  - Rejects per month

# Tools of Benchmarking

## *Project Management*

- Project management techniques are useful in
  - Planning the benchmarking study
  - Developing the implementation plan

- Tasks
- Resources
- Schedule



# Tools of Benchmarking

## *Questionnaire Design*

- Determine whether the intent of the questionnaire is to screen potential benchmarking partners or to obtain specific process-related information.
- Include a brief explanation of your purpose and how the responses will be used.
- Be specific about the process under study. When in doubt, include a simple process flowchart.
- Whenever possible, ask for objective information.
- Be neutral in your language. Don't ask questions that presuppose the answer.
- Use open-ended questions that encourage dialogue, not yes/no answers
- Test the questionnaire internally on people who are unfamiliar with your project.
  - Make sure that the questions are clear and that the responses they provide really address your issues.
  - Answer the questionnaire about your own process.

# Tools of Benchmarking

## *Questionnaire Design (Continued)*

- Ask yourself, "What kind of response do I expect from this question, and what will I do with the information when I get it?" Focus on the critical issues. Don't wander into other areas because of curiosity about their company.
- Don't use acronyms or company-specific terminology.
- Determine who the respondents are likely to be and indicate that those on distribution may forward the questionnaire to others who are better able to respond to the questions.
- Provide a contact from the benchmarking team, and an address (or fax number) where the questionnaires should be returned. Indicate whether the respondent should expect any further contact from your team.
- Keep the questionnaire simple (no more than 2 pages).
- Thank the participants for their cooperation.

# Tools of Benchmarking

## *Networking Skills*

- Be prepared. Know your own process and its performance measurements. Be familiar with the questions you will be asking, and have other questions thought out that would help you elicit additional information.
- Be sensitive to the protocol and culture of your benchmarking partner. Follow their lead.
- Use a standard set of questions with each benchmarking partner, but be flexible in the discussion to permit them to share additional information. You may want to ask, "Is there anything that we've failed to ask you that might be useful to us?"
- Practice active listening skills, and listen more than you speak. Never argue--among yourselves or with your partners.

# Tools of Benchmarking

## *Networking Skills (Continued)*

- Gather facts, but be open to hearing opinions.
- Be candid about the deficiencies of your own process, but don't assign blame.
- Be considerate of your benchmarking partners' schedule constraints. Never take more time than you have scheduled unless you are encouraged to do so by your partners.
- Thank your partners for their cooperation, and indicate if/when they should expect any further contact from your team.

# Benchmarking Tools

## *Observation Skills*

- Site visits provide opportunities to observe the enablers in place at your benchmarking partners
  - Resources
  - Process characteristics
  - Cultural attributes
  
- Examples

<b>Resources</b>	<b>Processes</b>	<b>Culture</b>
<ul style="list-style-type: none"> <li>● Facilities</li> <li>● Equipment</li> <li>● Supplies</li> <li>● Training</li> <li>● Investment in R&amp;D</li> </ul>	<ul style="list-style-type: none"> <li>● Work flow</li> <li>● Procedures</li> <li>● Strategy</li> </ul>	<ul style="list-style-type: none"> <li>● Management involvement</li> <li>● Empowerment</li> <li>● Risk taking</li> <li>● Decision-making approach</li> <li>● Internal communication</li> <li>● Amenities (offices, parking, etc.)</li> </ul>

# Benchmarking Etiquette

- Don't ask for data that you aren't willing to provide in return.
- Remember that you and your team represent your whole company in the eyes of your benchmarking partners.
- Send questions in advance of telephone conversations or site visits.
- Inquire up-front about confidentiality issues or topics that are "off-limits."
- Never press for information that is not willingly given.
- Don't reveal information that other benchmarking partners have given you unless you are certain it was meant to be shared with other companies.
- You may offer to share findings of the study, keeping in mind any issues of confidentiality between partner companies.
- When in doubt, don't ask!

# Illegal Benchmarking Practices

- Submitting phony requests for information in order to obtain pricing information
- Performing reverse engineering when the product is obtained illegally
- Covert photography or tape recording
- Violations of Antitrust Law/Unfair Trade Practices
  - Requesting information from direct competitors on:
    - Marketing strategies
    - Sales incentives
    - Cost or pricing data (other than commercially available price lists)
    - Contract terms and conditions
- Unethical practices
  - Misrepresenting yourself, your company, or your intentions in obtaining information
  - Querying job candidates about practices of their present employers
  - Using information that was given to you for a specific purpose for another reason without first obtaining permission from the benchmarking partner who provided it

## III. Identifying Candidate Partners

- Starting the search
- Screening partners
- Resources
- Companies active in benchmarking
- Making contact

## Where Do You Start the Search for the Best?

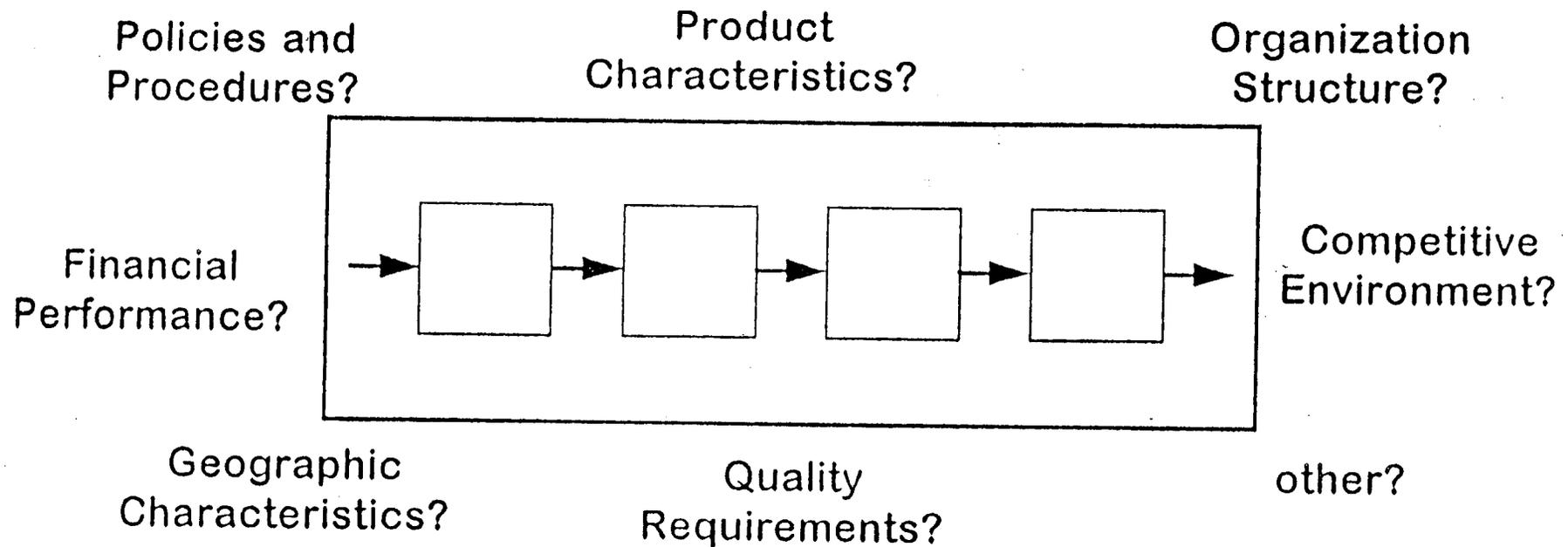
- Focus on the process, not the company
  - All of the processes at world-class companies aren't world-class processes (beware of the "halo" effect)
  - Even mediocre companies can have a world-class process or two
- Ask "Whose livelihood depends on this process?"
  - Routine machinery maintenance for safe operation
  - Fast, accurate distribution across the country
  - Fast turnaround of equipment

## Where Do You Start the Search for the Best? (Continued)

- Weigh the ease of getting access against possible performance compromises
  - Understand the spectrum from parity (just "different"), to some improvement over the current process, to best practice, to best-in-class or world-class
  - Decide "best-in-class" or best-in-Cleveland or somewhere in-between
- Act on fact — not opinion; some reputations are the result of clever advertising, others are earned

# Screening Potential Partners

*What characteristics in a potential benchmarking partner are important to the process under study?*



# Tapping into “Hidden” Resources

- Resources that are internally accessible
  - Library databases and literature searches
  - Employees who have worked at other companies, in other industries
  - Sales and marketing personnel
  - Field service personnel
  - Media attention — articles, shows
  - Other divisions of your organization
- Resources that require external contact
  - Professional associations
  - Industry publications
  - Customers
  - Suppliers
  - American Marketing Association
  - Seminars and conferences
  - Universities and alumni associations
  - Benchmarking clearinghouses
  - Consultants

# Companies<sup>1</sup> Active in Benchmarking

Alcoa

Amoco

AMP Inc.

AT&T

Bath Iron Works

Boise-Cascade

Chase Manhattan

Chevron

Compac

Corning

Dow Chemical

Dow Corning

DuPont

Eastman Kodak

Electronic Data System

First Chicago Bank

Florida Power and Light

GTE Directories\

Hewlett-Packard

IBM

Kaiser Associates

McDonnell Douglas

Medtronic

Nalco Chemicals

New York Times

Northrop (Aircraft)

Pacific Bell (Corporate)

Pacific Gas and Electric

Phillips Petroleum

Public Service Electric and Gas

Servistar

Sprint

Texaco

Texas Instruments

U.S. West

Xerox

<sup>1</sup>Such companies may be a resource on benchmarking...but may not have "world class" processes



# The Benchmarking Process

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# I. The Benchmarking Process

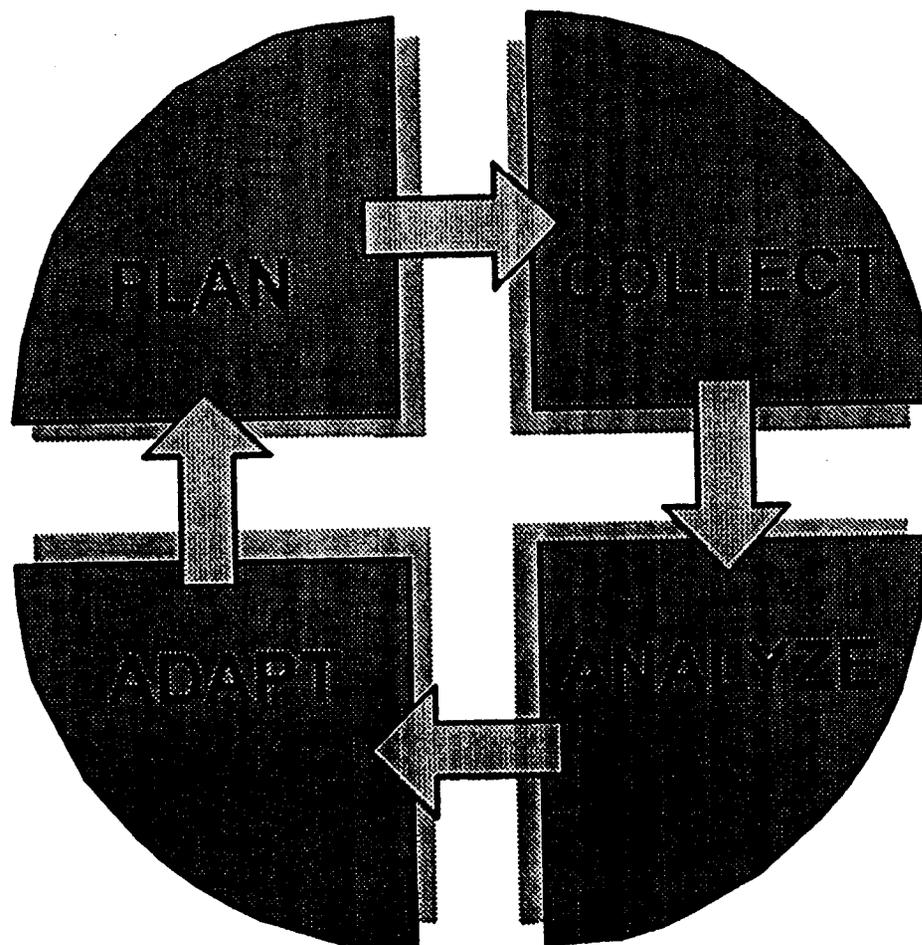
## *Different Steps But Common Elements*

- Organizations frequently develop their own benchmarking process

<b>Organization</b>	<b>Number of Steps</b>
Council for Continuous Improvement	7
IBM	4
Hamilton Standard	14
3M	7
Compac Computer	6
Xerox	10
Texas Instruments	10

# *APQC Benchmarking*

## Four Phase Model



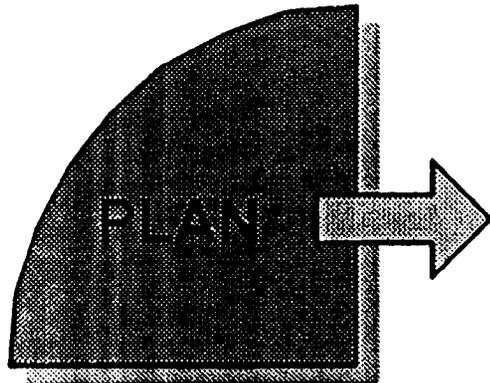
# *The Four Step Approach*

- **PLAN**
  - Prepare the Benchmarking study plan, select the team, select partners, analyze your process
  
- **COLLECT DATA**
  - Prepare & administer questions, capture the results, follow-up with partners
  
- **ANALYZE**
  - Analyze performance gaps, identify Best Practices, methods, and enablers
  
- **ADAPT AND IMPROVE**
  - Publish findings, create an improvement plan, execute the plan

# *The Four Step Approach*

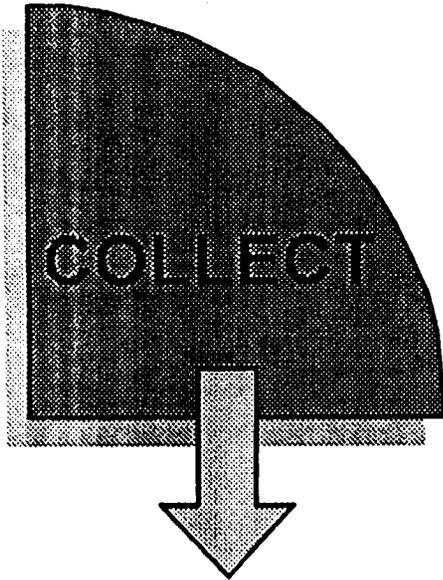
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# *Planning Phase*



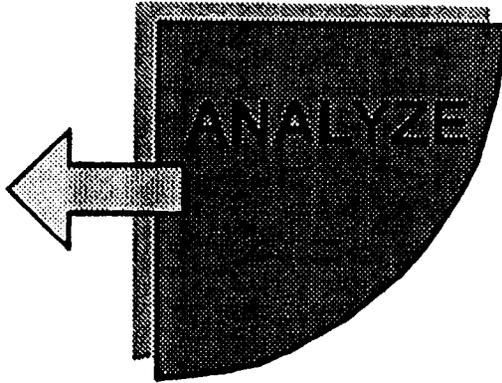
1. Form (and train, if needed) benchmarking team
2. Analyze and document the current process
  - a. Identify the area of focus
  - b. Identify the critical success factors (CSF)s for the area
  - c. Develop measures for the CSFs
3. Establish scope of benchmarking study
4. Develop purpose statement
5. Develop criteria for benchmarking partners
6. Identify target benchmarking partners
7. Define a data collection plan and determine how the data will be used/managed/distributed
8. Identify how implementation of improvements will be accomplished

# Collection Phase



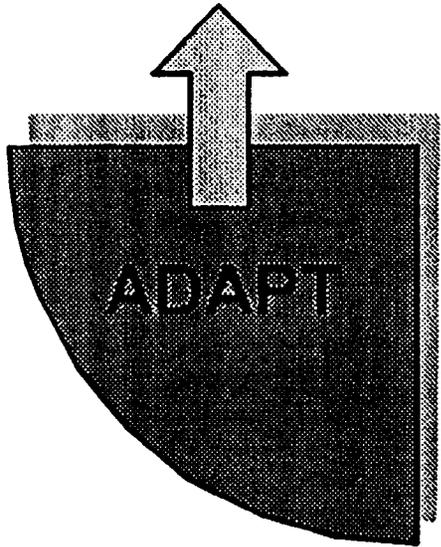
1. Secondary research based on select/sort criteria
2. Evaluate results and identify potential partners
3. Develop data collection instruments
4. Pilot data collection instruments internally
5. Identify and contact best practice partners and enlist participation
6. Screen partners and evaluate for best “fit” with criteria
7. Develop detailed questionnaire
8. Conduct detailed investigation
  - a. Detailed questionnaire
  - b. Follow-up telephone conversation
  - c. Site visits

# *Analysis Phase*



1. Compare your current performance data to your partners' data
  - Sort and compile data
  - Make your performance data comparable (normalize)
  - Identify gaps
  
2. Identify operational best practices and enablers
  - What are participants doing that you are not doing
  - How do they do it (enablers)
  
3. Formulate strategy to close the gaps
  - Assess adaptability of practices and enablers
  - Identify opportunities for improvement
  
4. Develop implementation plan

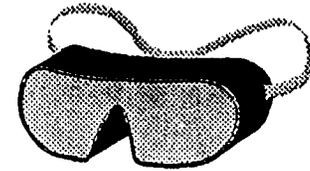
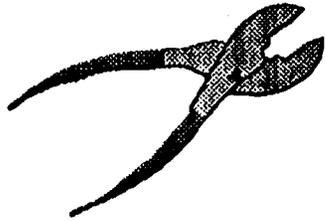
# Adapting Improvements



1. Implement the plan
2. Monitor and report progress  
  
★ ★ ★ Celebrate !!! ★ ★ ★  
(Acknowledge the benchmarking team)
3. Document the study
  - a. Communicate the results (internally and to benchmarking partners)
  - b. Assist in the internal transfer of best practices
4. Plan for continuous improvement
  - Identify new benchmarking opportunities
  - Set new goals

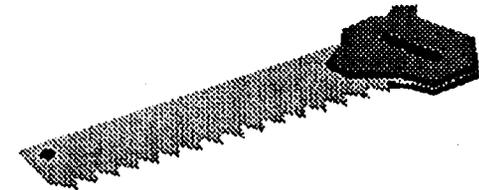
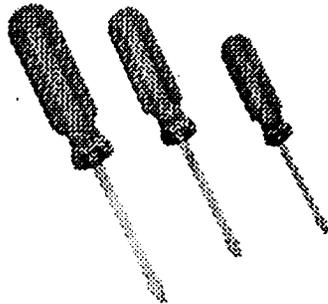
# How to Get Started

- Understand what benchmarking can and cannot do for you
- Prioritize what to benchmark
- Get management buy-in and resource commitment
- Based on the process that is selected, identify a team and a leader
- Understand the current process
- Be familiar with the benchmarking process
- Identify benchmarking partners
- Do it!



## II. Tools of Benchmarking

- Process mapping
- Process performance measurements
- Project management
- Questionnaire design
- Networking skills
- Observation skills
- Etiquette and legal issues





# Tools of Benchmarking

## *Process Mapping*

### Map Summary

Top Down	Big picture Phases
Wall Map	Participants Time & Activities
Product/Process	Product's perspective Value added

# Process Mapping

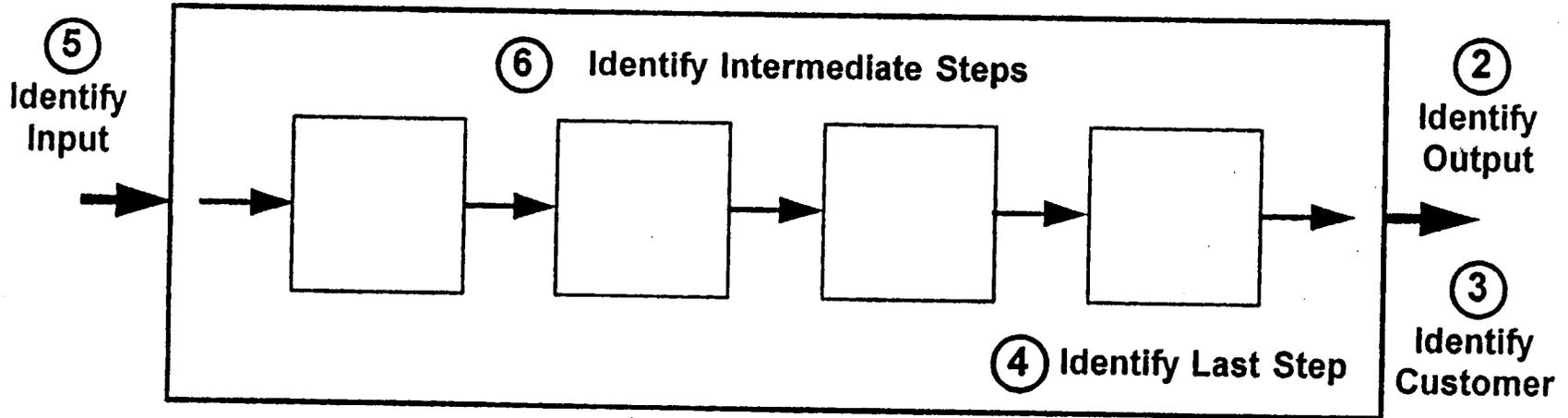
## *Top-down Map*

- Presents high level overview and identifies
  - Inputs
  - Outputs
- Defines major phases
- Describes substeps under each phase
- Uses verb-noun format

# Process Mapping

## *Instructions for Building a Top-Down Flowchart*

① Draw Process Boxes and Name Process



⑦ List Sub-steps

• _____	• _____	• _____	• _____
• _____	• _____	• _____	• _____
• _____	• _____	• _____	• _____
• _____	• _____	• _____	• _____



# Process Mapping

## *Wall Map*

- Shows the following
  - Activities
  - Participants
  - Timing
  - Sequence and dependencies
  - Loops and rework

# Process Mapping

## *How to Make a Wall Map*

1. Tape a large piece of chart paper to a wall (3 ft X 20 ft)
2. Draw horizontal scale for time phases and vertical scale for participants
3. Put process name at top
4. Determine time scale and divide horizontal scale into time increments
5. List participants (suppliers, customers, workers, managers) in chronological order
6. Group participants breaking down functional barriers
7. Create each activity on a post-it and attach to proper participant and time

# Process Mapping

## *Product/Process Map*

- Shows what happens from the product's perspective
  - Operation
  - Transport
  - Inspection
  - Wait
  - Storage
  - Distance
  - Time
- Indicates value added activities

# Process Mapping

## *How to Make a Product/Process Map*

- Think of yourself as the product. Then...
  - Walk the process and see what happens to you
  - Identify each activity
  - Determine if you are being operated on, transported, inspected, waiting, or stored
  - Determine how far you were moved
  - Determine how long each activity took
  - Determine what value-added work was done on you
  - Summarize the information

# Defining Value-Added Work

- A step is value-added if
  - The customer recognizes the value
  - It changes the product
  - It is done right the first time

# Benchmarking Process Steps

1. Decide What to Benchmark
  - A. Define the Project
    - (1) Identify the Customer
    - (2) Identify Customer Critical Satisfaction Factors (CCSF)
    - (3) Identify Internal Business Process(es)
  - B. Establish Process Owner
  - C. Authorize Time and Resources
  - D. Select Benchmarking Team
  - E. Inform Organization of the Benchmarking Study
2. Understand Your Process
  - A. Flow Chart the Process Steps
  - B. Document the Process Detail
  - C. Identify Existing Process Measures
  - D. Collect Quantitative Performance Data
  - E. Analyze the Performance Data Collected
3. Understand Best-in-Class Process
  - A. Identify Best-in-Class Organizations
  - B. Collect Best-in-Class Data
    - (1) Internal Sources
    - (2) Public Sources
    - (3) Private Sources
  - C. Visit Best-in-Class Organizations
    - (1) Gain Best-in-Class Organizations Cooperation
    - (2) Establish Data Collection Method
    - (3) Collect Data from Best-in-Class Organization
4. Compare Performance Data
  - A. Locate Areas of Superior Performance (Determine Gaps)
  - B. Identify Enablers Catalyzing Superior Performance
  - C. Project Future Performance for Best-in-Class Organization (Future Gaps)
5. Plan to "Meet and Surpass" the Best
  - A. Tell Own Organization about Benchmark Findings
  - B. Apply Wisdom and Knowledge from Own Organization
  - C. Establish Goals and Action Plans
  - D. Gain Acceptance and Support
    - (1) Management
    - (2) Stakeholders
    - (3) Employees
6. Implement and Monitor Action Plans
  - A. Implement Action Plans
  - B. Monitor Improvement and Reinforce Superior Performance
  - C. Report Benchmarking Results

7. Strive for Continuous Improvement
  - A. Establish Time Frame to Recalibrate Against the Best