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# Continuous Improvement Toolkit

## **Benchmarking**

## Managing Risk

PDPC  
FMEA RAID Logs  
Fault Tree Analysis  
Risk Assessment\*  
Traffic Light Assessment

## Deciding & Selecting

Pros and Cons  
Break-even Analysis  
Force Field Analysis  
Decision Tree  
QFD  
Kano Analysis  
Critical-to Tree  
Cause & Effect Matrix  
Confidence Intervals  
Probability Distributions  
Graphical Analysis  
Run Charts  
Control Charts  
Sampling  
Brainstorming  
Nominal Group Technique  
Affinity Diagram  
Attribute Analysis  
Lateral Thinking  
Visioning  
Creating Ideas\*\*

## Planning & Project Management\*

Importance-Urgency Mapping  
Cost -Benefit Analysis  
Voting  
TPN Analysis  
Prioritization Matrix  
Paired Comparison  
Pareto Analysis  
Design of Experiments  
Regression  
Multi-Vari Charts  
Relations Mapping\*  
TRIZ\*\*\*  
SCAMPER\*\*\*  
Mind Mapping\*  
Flowcharting  
Service Blueprints  
Designing & Analyzing Processes

RACI Matrix  
Stakeholders Analysis  
PERT/CPM  
Activity Diagram  
Roadmaps  
Project Charter  
Gantt Chart  
PDCA  
Control Planning  
Gap Analysis  
Hoshin Kanri  
Kaizen  
How-How Diagram  
Standard work  
Simulation  
TPM  
Mistake Proofing  
Pull Systems  
JIT  
Ergonomics  
Work Balancing  
Automation  
Bottleneck Analysis  
Visual Management  
Flow  
Value Analysis  
5S  
Wastes Analysis  
SMED  
Time Value Map  
Process Redesign  
IDEF0  
Value Stream Mapping  
SIPOC  
Flow Process Chart  
Process Mapping

Lean Measures  
KPIs  
OEE  
Capability Indices

MSA  
RTY  
Descriptive Statistics  
Cost of Quality  
Reliability Analysis

## Understanding Performance

### Benchmarking

Focus groups  
Interviews  
Photography  
Check Sheets  
Measles Charts  
Surveys  
Data  
Critical Incident Technique  
Observations

## Understanding Cause & Effect

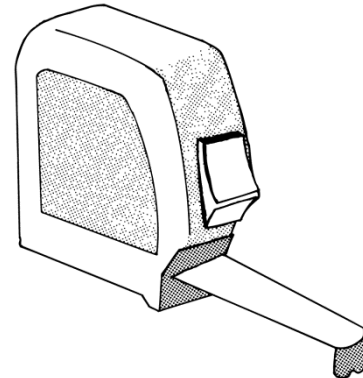
Design of Experiments  
Regression  
Multi-Vari Charts  
Relations Mapping\*  
TRIZ\*\*\*  
SCAMPER\*\*\*  
Mind Mapping\*

## Identifying & Implementing Solutions\*\*\*

Pull Systems  
JIT  
Ergonomics  
Work Balancing  
Automation  
Bottleneck Analysis  
Visual Management  
Flow  
Value Analysis  
5S  
Wastes Analysis  
SMED  
Time Value Map  
Process Redesign  
IDEF0  
Value Stream Mapping  
SIPOC  
Flow Process Chart  
Process Mapping

# - Benchmarking

- ❑ A systematic procedure that measures a company's processes, services, and products against those industry leaders.
- ❑ Used to better understand how outstanding companies do things.
- ❑ Focuses on setting quantitative goals for improvement.
- ❑ This then allows organizations to develop plans on how to make improvements or adapt specific best practices.



# - Benchmarking

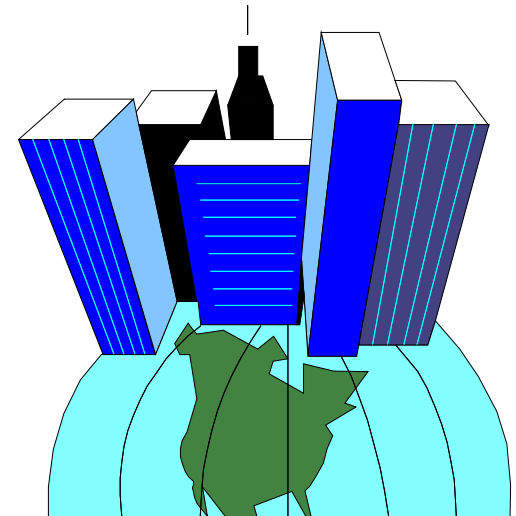
## Benchmarking Types:

### ❑ External benchmarking:

- Competitive benchmarking: Comparisons with a direct industry competitor.
- Best-in-class benchmarking.
- Strategic benchmarking.
- Operational/Functional benchmarking.
- Process benchmarking.

### ❑ Internal benchmarking:

- Process benchmarking.



# - Benchmarking

## Operational/Functional Benchmarking:

- ❑ Compares areas such as administration, customer service, and sales operations with those of outstanding in any industry.
- ❑ For example, Xerox benchmarked its distribution function against a retailer leader in distribution efficiency and customer service.
- ❑ Data are often collected by professional associations or consulting firms.



# - Benchmarking

## **Internal Benchmarking:**

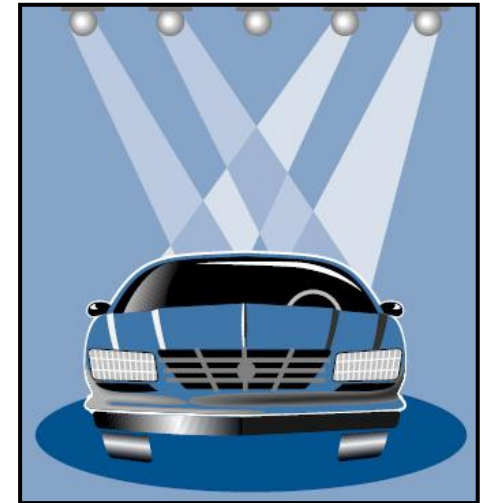
- ❑ Using an organizational unit with superior performance as the benchmark for other units.
- ❑ Applied in situations where you are looking for a long-term program of continuous improvement.
- ❑ The data is the most accessible.



# - Benchmarking

## **Best-In-Class Benchmarking:**

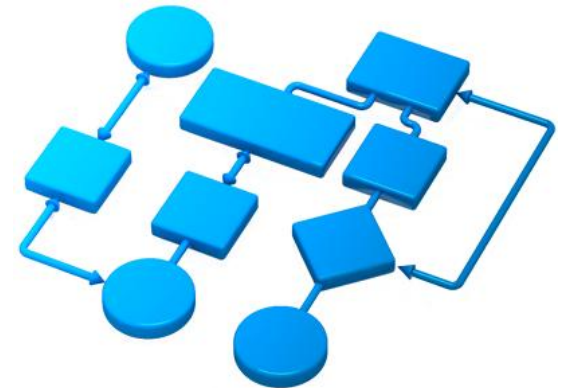
- ❑ Maximum value is usually gained from further afield than your direct competitors or industries.
- ❑ For example, a car manufacturer that is looking to provide customized cars to order could benchmark with the computer industries for ideas on rapid customization and delivery.



# - Benchmarking

## Approach:

- ❑ Identify the process, service, or product to be benchmarked.
- ❑ Identify data sources and/or potential partners to be used for comparison.
- ❑ Determine the performance metrics for analysis.
- ❑ Collect data.
- ❑ Determine the gaps and identify the causes of significant performance gaps.
- ❑ Establish goals and obtain the support of managers who must provide the resources for accomplishing the goals.
- ❑ Implement, monitor progress and communicate.





# - Benchmarking

## Benchmarking Measures:

- ❑ Dimensions typically measured are quality, time and cost.
- ❑ Typical measures used in benchmarking include:
  - Customer satisfaction levels.
  - Service upsets per customer.
  - Customer retention rate.
  - Processing time per unit.
  - Cost per unit.
  - Revenue per unit.
  - Return on investment.



# - Benchmarking

## Best Practices:

- ❑ Benchmarking involves identifying ‘best practices’ from other processes and companies.
- ❑ A best practice is the **best known way** of doing something which has been proved to produce the desired result consistently.
- ❑ It serve as Models for similar efforts throughout the company (or even across organizations).
- ❑ **Generally based on:**
  - Company-wide experience.
  - Any benchmarking knowledge.



# - Benchmarking

<b>Best Practice</b>	
<b>Subject:</b>	<b>Originated by:</b>
<b>Department:</b>	<b>Submitted by:</b>
<b>Area/Process:</b>	<b>Submission date:</b>
<b>Initial Condition</b>	<b>Before Photos</b>
<b>Solution</b>	<b>After Photos</b>
<b>Benefits/Results</b>	

# - Benchmarking

## Further Information:

- ❑ Collecting benchmarking data can sometimes be a challenge.
- ❑ There are many organizations who facilitate and provide benchmarking visits and information.
- ❑ The Internet is a valuable source of benchmarking ideas & data.
- ❑ Benchmarking is often treated as a continuous process in which organizations continually seek to improve their practices.
- ❑ It may be carried out collaboratively by groups of companies (e.g. subsidiaries of a multinational in different countries).
- ❑ Benchmarking is a valuable source for **process redesign**.