



# Greater Orlando IFMA Chapter CFM Roundtable

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CFM Roundtable

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# Greater Orlando IFMA Chapter CFM Roundtable

Today's facilitator:

**David Dunn, CFM**

Facilities Project Manager  
City of Orlando

CFM



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## Quality Assessment and Innovation

**Competency 1. Manage the process of assessing the quality of services and the facility's effectiveness.**

**Competency 2. Manage the benchmarking process.**

**Competency 3. Manage audit activities.**

**Competency 4. Manage developmental efforts of facility services to make innovative improvements in facilities and facility services.**



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**We will begin by going through the handout that has been provided to you today.**

**This handout actually comes from the new CFM Study Guide.**

**Chapter 8: Quality Assessment & Innovation**



## **Greater Orlando IFMA Chapter CFM Roundtable**

**Now let's look at some practice questions without the benefit of the handout.**

**See if you can answer the questions on your own.**

**Then we'll go through them one by one.**



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**Okay, let's see  
how you did?**



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## Study questions

1. A competent facility manager should have a general understanding and working knowledge of what four Key Concepts? (Pick four)

- A. Basics of Quality
- B. Financial Analysis
- C. Government Factors
- D. Measuring, Analyzing and Reporting Facility Management data
- E. Stock Market
- F. Setting FM Quality Standards
- G. Environmental Regulations
- H. Fostering Innovation in the FM Function
- I. Corporate Image

2. The four elements of a relationship map are:? (Pick four)

- A. The outputs of those core processes.
- B. Financial Analysis of the bottom line and how it relates to the P & L Statement.
- C. The external stakeholders.
- D. The business's core processes.
- E. The business itself.
- F. Environmental Regulations
- G. Financial Market
- H. Corporate Image



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3. Identify the Benchmark Terminology definition of Xerox and also The 10 – Step Process.

- A. The difference between the X & Y Axis as represented on the P & L.
- B. Methodology & Contributions calculations less expenses.
- C. A structured way of looking outside to identify, analyze and adopt the best in the industry or function.
- D. Functionality, Design & Space Usage as determined by the custodial staff on 2<sup>nd</sup> shift.
- E. Life Safety & Regulatory Compliance process the Chief of Police issues.
- F. Objectives & Time Line of Facility Manager Advancement.
- G. The continuous process of measuring products, services and practices against the toughest competitors or those companies known as leaders.
- H. The copier industry Icon.
- I. C & G
- J. None of the listed answers
- K. A & F

4. Select three Benchmarking Mistakes. (Pick three)

- A. Picking a topic that is of absolutely no interest to the personnel assigned.
- B. Picking a Property Insurance Carrier based on television or magazine advertisements.
- C. Picking a process that is too large and complex to be manageable.
- D. Picking a topic that is under review by the Regional FEMA Office.
- E. Picking a topic that is too intangible and difficult to measure.
- F. Picking a process that varies by Utility Demand Charges.
- G. Not having a code of ethics and contract agreed with partners.
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5. Select the three basic approaches to be taken once the Facility Manager decides to include benchmarking in the FM quality process. (Pick three)

- A. One on one approach.
- B. Roads & grounds review.
- C. Security regulations.
- D. Consortium studies.
- E. Administration review.
- F. Cleaning schedule.
- G. Third party administrator.
- H. Utilities availability.

6. Which of the following could be considered a facility costs? (Pick two)

- A. None of the listed items.
- B. Maintenance costs.
- C. Move costs.
- D. FF&E acquisition costs.
- E. CEO temporary housing costs.
- F. Janitorial costs.



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David Dunn, CFM

## My experience with the CFM exam September 2007

- On-line Assessment \$39.95
  - Identifies your actual strong & weak areas.
- CFM Study Guide \$88.00 (Now \$199.00)
  - Best examples of what type of questions you'll see on the test and a review of the questions and answers the night before testing will get you in the right mindset for the test itself.



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Thank you for participating in the June 2008  
CFM roundtable

Our next roundtable will be July 1st and  
the competency covered will be  
Technology.

- Please give us some feedback on what you are looking for in the CFM Roundtable area.



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# Greater Orlando IFMA Chapter CFM Roundtable

## CFM Roundtable Feedback Form

1. Do you have a particular Competency you would like covered?

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2. Is there another format you would like considered?

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3. Can you suggest a tour activity that you would find helpful?

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4. Anything else you would like to offer?

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## IFMA Orlando CFM Roundtable additional Handout June 3, 2008

Source <http://en.wikipedia.org>

Six Sigma is a [business management](#) strategy, originally developed by [Motorola](#), that today enjoys wide-spread application in many sectors of industry.

Six Sigma seeks to identify and remove the causes of defects and errors in [manufacturing](#) and [business processes](#).<sup>[1]</sup> It uses a set of [quality management](#) methods, including [statistical methods](#), and creates a special infrastructure of people within the organization ("Black Belts" etc.) who are experts in these methods.<sup>[1]</sup> Each Six Sigma project carried out within an organization follows a defined sequence of steps and has quantified financial targets (cost reduction or profit increase).<sup>[1]</sup>

## Historical overview

Six Sigma was originally developed as a set of practices designed to improve manufacturing [processes](#) and eliminate defects, but its application was subsequently extended to other types of business processes as well.<sup>[2]</sup> In Six Sigma, a defect is defined as anything that could lead to customer dissatisfaction.<sup>[1]</sup>

The particulars of the methodology were first formulated by [Bill Smith](#) at [Motorola](#) in 1986.<sup>[3]</sup> Six Sigma was heavily inspired by six preceding decades of quality improvement methodologies such as [quality control](#), [TQM](#), and [Zero Defects](#), based on the work of pioneers such as [Shewhart](#), [Deming](#), [Juran](#), [Ishikawa](#), [Taguchi](#) and others.

Like its predecessors, Six Sigma asserts that –

Continuous efforts to achieve stable and predictable process results (i.e. reduce process [variation](#)) are of vital importance to business success.

Manufacturing and business processes have characteristics that can be measured, analyzed, improved and controlled.

Achieving sustained quality improvement requires commitment from the entire organization, particularly from top-level management.

Features that set Six Sigma apart from previous quality improvement initiatives include –

A clear focus on achieving measurable and quantifiable financial returns from any Six Sigma project.<sup>[1]</sup>

An increased emphasis on strong and passionate management leadership and support.<sup>[1]</sup>

A special infrastructure of "Champions", "Master Black Belts", "Black Belts" etc. to lead and implement the Six Sigma approach.<sup>[1]</sup>

A clear commitment to making decisions on the basis of verifiable data, rather than assumptions and guesswork.<sup>[1]</sup>

The term "Six Sigma" derives from a field of statistics known as [process capability](#) studies. Originally, it referred to the ability of manufacturing processes to produce a very high proportion of output within specification. Processes that operate with "six sigma quality" are assumed to produce defect levels below 3.4 [defects per million opportunities](#) (DPMO).<sup>[4]</sup> Six Sigma's implicit goal is to improve all processes to that level of quality or better.

Six Sigma is a registered [service mark](#) and trademark of [Motorola](#), Inc.<sup>[5]</sup> Motorola has reported over US\$17 billion in savings<sup>[6]</sup> from Six Sigma [as of 2006](#).

Other early adopters of Six Sigma who achieved well-publicized success include [Honeywell International](#) (previously known as [Allied Signal](#)) and [General Electric](#), where the method was introduced by [Jack Welch](#).<sup>[7]</sup> By the late 1990s, about two-thirds of the [Fortune 500](#) organizations had begun Six Sigma initiatives with the aim of reducing costs and improving quality.<sup>[8]</sup>

In recent years, Six Sigma has sometimes been combined with [lean manufacturing](#) to yield a methodology named [Lean Six Sigma](#).

Graph of the [normal distribution](#), which underlies the statistical assumptions of the Six Sigma model. The Greek letter  $\sigma$  marks the distance on the horizontal axis between the [mean](#),  $\mu$ , and the curve's [point of inflection](#). The greater this distance is, the greater is the spread of values encountered. For the curve shown in red above,  $\mu = 0$  and  $\sigma = 1$ . The other curves illustrate different values of  $\mu$  and  $\sigma$ .

## Origin and meaning of the term "six sigma process"

The following outlines the statistical background of the term Six Sigma.

[Sigma](#) (the lower-case Greek letter  $\sigma$ ) is used to represent the [standard deviation](#) (a measure of variation) of a [statistical population](#). The term "six sigma process" comes from the notion that if one has six standard deviations between the [mean](#) of a process and the nearest specification limit, there will be practically no items that fail to meet the specifications.<sup>[9]</sup> This is based on the calculation method employed in a [process capability study](#).

In a capability study, the number of standard deviations between the process mean and the nearest specification limit is given in sigma units. As process standard deviation goes up, or the mean of the process moves away from the center of the tolerance, fewer standard deviations will fit between the mean and the nearest specification limit, decreasing the sigma number.<sup>[9]</sup>

Experience has shown that in the long term, processes usually do not perform as well as they do in the short.<sup>[9]</sup> As a result, the number of sigmas that will fit between the process mean and the nearest specification limit is likely to drop over time, compared to an initial short-term study.<sup>[9]</sup> To account for this real-life increase in process variation over time, an empirically-based 1.5 sigma shift is introduced into the calculation.<sup>[10][9]</sup> According to this idea, a process that fits six sigmas between the process mean and the nearest specification limit in a short-term study will in the long term only fit 4.5 sigmas – either because the process mean will move over time, or because the long-term standard deviation of the process will be greater than that observed in the short term, or both.<sup>[9]</sup>

Hence the widely accepted definition of a six sigma process is one that produces 3.4 defective parts per million opportunities (DPMO).<sup>[11]</sup> This is based on the fact that a process that is [normally distributed](#) will have 3.4 parts per million beyond a point that is 4.5 standard deviations above or below the mean (one-sided capability study).<sup>[9]</sup> So the 3.4 DPMO of a "Six Sigma" process in fact corresponds to 4.5 sigmas, namely 6 sigmas minus the 1.5 sigma shift introduced to account for long-term variation.<sup>[9]</sup> This is designed to prevent overestimation of real-life process capability.<sup>[9]</sup>

## Methodology

Six Sigma has two key methodologies:<sup>[8]</sup> DMAIC and DMADV, both inspired by [Deming's Plan-Do-Check-Act Cycle](#). DMAIC is used to improve an existing business process; DMADV is used to create new product or process designs.<sup>[8]</sup>

### DMAIC

The basic methodology consists of the following five steps:

*Define* process improvement goals that are consistent with customer demands and the enterprise strategy.

*Measure* key aspects of the current process and collect relevant data.

*Analyze* the data to verify cause-and-effect relationships. Determine what the relationships are, and attempt to ensure that all factors have been considered.

*Improve* or optimize the process based upon data analysis using techniques like [Design of Experiments](#).

*Control* to ensure that any deviations from target are corrected before they result in defects. Set up pilot runs to establish [process capability](#), move on to production, set up control mechanisms and continuously monitor the process.

## DMADV

The basic methodology consists of the following five steps:

*Define* design goals that are consistent with customer demands and the enterprise strategy.

*Measure* and identify CTQs (characteristics that are Critical To Quality), product capabilities, production process capability, and risks.

*Analyze* to develop and design alternatives, create a high-level design and evaluate design capability to select the best design.

*Design* details, optimize the design, and plan for design verification. This phase may require simulations.

*Verify* the design, set up pilot runs, implement the production process and hand it over to the process owners.

DMADV is also known as DFSS, an abbreviation of "Design For Six Sigma".<sup>[8]</sup>

## Implementation roles

One of the key innovations of Six Sigma is the professionalizing of quality management functions. Prior to Six Sigma, quality management in practice was largely relegated to the production floor and to [statisticians](#) in a separate quality department. Six Sigma borrows [martial arts](#) ranking terminology to define a hierarchy (and career path) that cuts across all business functions and a promotion path straight into the executive suite.

Six Sigma identifies several key roles for its successful implementation.<sup>[12]</sup>

*Executive Leadership* includes the CEO and other members of top management. They are responsible for setting up a vision for Six Sigma implementation. They also empower the other role holders with the freedom and resources to explore new ideas for breakthrough improvements.

*Champions* are responsible for Six Sigma implementation across the organization in an integrated manner. The Executive Leadership draws them from upper management. Champions also act as mentors to Black Belts.

*Master Black Belts*, identified by champions, act as in-house coaches on Six Sigma. They devote 100% of their time to Six Sigma. They assist champions and guide Black Belts and Green Belts. Apart from statistical tasks, their time is spent on ensuring consistent application of Six Sigma across various functions and departments.

*Black Belts* operate under Master Black Belts to apply Six Sigma methodology to specific projects. They devote 100% of their time to Six Sigma. They primarily focus on Six Sigma project execution, whereas Champions and Master Black Belts focus on identifying projects/functions for Six Sigma.

*Green Belts* are the employees who take up Six Sigma implementation along with their other job responsibilities. They operate under the guidance of Black Belts and support them in achieving the overall objectives.

*Yellow Belts* are employees who have been trained in Six Sigma techniques as part of a corporate-wide initiative, but have not completed a Six Sigma project and are not expected to actively engage in quality improvement activities.<sup>[13]</sup>

The **Balanced Scorecard (BSC)** began as a concept for measuring whether the smaller-scale operational activities of a company are aligned with its larger-scale objectives in terms of vision and strategy. It was developed and first used at [Analog Devices](#) in 1987. By focusing not only on financial outcomes but also on the human issues, the Balanced Scorecard helps provide a more comprehensive view of a business, which in turn helps organizations act in their best long-term interests. The [strategic management](#) system helps managers focus on performance metrics while

balancing financial objectives with customer, process and employee perspectives. Measures are often indicators of future performance.

## History

In 1992, [Robert S. Kaplan](#) and [David P. Norton](#) began publicizing the Balanced Scorecard through a series of journal articles. In 1996, they published the book *The Balanced Scorecard*. Since the original concept was introduced, Balanced Scorecards have become a fertile field of theory and research, and many practitioners have diverted from the original Kaplan & Norton articles. Kaplan & Norton themselves revisited Balanced Scorecards with the benefit of a decade's experience since the original article.

The Balanced Scorecard is a performance planning and measurement framework, with similar principles as [Management by Objectives](#), which was publicized by [Robert S. Kaplan](#) and David P. Norton in the early 1990s. Having realized the shortcomings of traditional management control systems, Kaplan and Norton designed the Balanced Scorecard as a result of a one-year research project involving 12 companies. Since its introduction, the Balanced Scorecard has been awarded a prize by the American Accounting Association as the “best theoretical contribution in 1997”, and its industry and academic attention has placed it alongside approaches such as [Activity Based Costing](#) and [Total Quality Management](#). Balanced scorecard is a tool to execute and monitor the organisational strategy by using a combination of financial and non financial measures. It is designed to translate vision and strategy into objectives and measures across four balanced perspectives: financial, customers, internal business process and learning and growth. It gives a framework ensuring that the strategy is translated into a coherent set of performance measures.

## Use

Implementing Balanced Scorecards typically includes four processes:

Translating the vision into operational goals;

Communicating the vision and link it to individual performance;

Business planning;

Feedback and learning, and adjusting the strategy accordingly.

The Balanced Scorecard is a framework, or what can be best characterized as a “strategic management system” that claims to incorporate all quantitative and abstract measures of true importance to the enterprise. According to Kaplan and Norton, “The Balanced Scorecard provides managers with the instrumentation they need to navigate to future competitive success”.

Many books and articles referring to Balanced Scorecards confuse the design process elements and the Balanced Scorecard itself. In particular, it is common for people to refer to a “strategic linkage model” or “strategy map” as being a Balanced Scorecard.

Balanced Scorecard is a [performance management](#) tool. Although it helps focus managers' attention on strategic issues and the management of the implementation of strategy, it is important to remember that the Balanced Scorecard itself has no

role in the formation of strategy. In fact, Balanced Scorecards can comfortably co-exist with strategic planning systems and other tools.

## **Original methodology**

The earliest Balanced Scorecards comprised simple tables broken into four sections - typically these "perspectives" were labeled "Financial", "Customer", "Internal Business Processes", and "Learning & Growth". Designing the Balanced Scorecard required selecting five or six good measures for each perspective.

Many authors have since suggested alternative headings for these perspectives, and also suggested using either additional or fewer perspectives. These suggestions were notably triggered by a recognition that different but equivalent headings would yield alternative sets of measures. The major design challenge faced with this type of Balanced Scorecard is justifying the choice of measures made. "Of all the measures you could have chosen, why did you choose these?" This common question is hard to ask using this type of design process. If users are not confident that the measures within the Balanced Scorecard are well chosen, they will have less confidence in the information it provides. Although less common, these early-style Balanced Scorecards are still designed and used today.

In short, early-style Balanced Scorecards are hard to design in a way that builds confidence that they are well designed. Because of this, many are abandoned soon after completion.

## **Improved methodology**

In the mid 1990s, an improved design method emerged. In the new method, measures are selected based on a set of "strategic objectives" plotted on a "strategic linkage model" or "strategy map". With this modified approach, the strategic objectives are typically distributed across a similar set of "perspectives", as is found in the earlier designs, but the design question becomes slightly less abstract.

Managers have to identify five or six goals within each of the perspectives, and then demonstrate some inter-linking between these goals by plotting causal links on the diagram. Having reached some consensus about the objectives and how they inter-relate, the Balanced Scorecard is devised by choosing suitable measures for each objective. This type of approach provides greater contextual justification for the measures chosen, and is generally easier for managers to work through. This style of Balanced Scorecard has been commonly used since 1996 or so.

Several design issues still remain with this enhanced approach to Balanced Scorecard design, but it has been much more successful than the design approach it supersedes.

## **Popularity**

Kaplan and Norton found that companies are using Balanced Scorecards to:

- Drive strategy execution;
- Clarify strategy and make strategy operational;
- Identify and align strategic initiatives;
- Link budget with strategy;
- Align the organization with strategy;

Conduct periodic strategic performance reviews to learn about and improve strategy. In 1997, Kurtzman found that 64 percent of the companies questioned were measuring performance from a number of perspectives in a similar way to the Balanced Scorecard.

Balanced Scorecards have been implemented by government agencies, military units, business units and corporations as a whole, non-profit organizations, and schools.

Many examples of Balanced Scorecards can be found via Web searches. However, adapting one organization's Balanced Scorecard to another is generally not advised by theorists, who believe that much of the benefit of the Balanced Scorecard comes from the implementation method.

## Variants, Alternatives and Criticisms

Since the late 1990s, various alternatives to the Balanced Scorecard have emerged, such as [The Performance Prism](#), [Results Based Management](#) and [Third Generation Balanced Scorecard](#). These tools seek to solve some of the remaining design issues, in particular issues relating to the design of sets of Balanced Scorecards to use across an organization, and issues in setting targets for the measures selected. [Applied Information Economics](#) (AIE) has been researched as an alternative to Balanced Scorecards. In 2000, the [Federal CIO Council](#) commissioned a study [1] to compare the two methods by funding studies in side-by-side projects in two different agencies. The Dept. of Veterans Affairs used AIE and the US Dept. of Agriculture applied Balanced Scorecards. The resulting report found that while AIE was much more sophisticated, AIE actually took slightly less time to utilize. AIE was also more likely to generate findings that were newsworthy to the organization, while the users of Balanced Scorecards felt it simply documented their inputs and offered no other particular insight. However, Balanced Scorecards are still much more widely used than AIE. [citation needed]

A criticism of Balanced Scorecards is that the scores are not based on any proven economic or financial theory, and therefore have no basis in the decision sciences. The process is entirely subjective and makes no provision to assess quantities (e.g., risk and economic value) in a way that is actuarially or economically well-founded. Another criticism is that the Balanced Scorecard does not provide a bottom line score or a unified view with clear recommendations: it is simply a list of metrics [2]. Some people also claim that positive feedback from users of Balanced Scorecards may be due to a placebo effect, as there are no empirical studies linking the use of Balanced Scorecards to better decision making or improved financial performance of companies.

## The Four Perspectives

The grouping of performance measures in general categories (perspectives) is seen to aid in the gathering and selection of the appropriate performance measures for the enterprise. Four general perspectives have been proposed by the Balanced Scorecard:

Financial perspective;  
Customer perspective;

Internal process perspective;  
Learning and growth perspective.

The **financial perspective** examines if the company's implementation and execution of its strategy are contributing to the bottom-line improvement of the company. It represents the long-term strategic objectives of the organization and thus it incorporates the tangible outcomes of the strategy in traditional financial terms. The three possible stages as described by Kaplan and Norton (1996) are rapid growth, sustain and harvest. Financial objectives and measures for the growth stage will stem from the development and growth of the organization which will lead to increased sales volumes, acquisition of new customers, growth in revenues etc. The sustain stage on the other hand will be characterized by measures that evaluate the effectiveness of the organization to manage its operations and costs, by calculating the return on investment, the return on capital employed, etc. Finally, the harvest stage will be based on cash flow analysis with measures such as payback periods and revenue volume. Some of the most common financial measures that are incorporated in the financial perspective are EVA, revenue growth, costs, profit margins, cash flow, net operating income etc.

The **customer perspective** defines the value proposition that the organization will apply in order to satisfy customers and thus generate more sales to the most desired (i.e. the most profitable) customer groups. The measures that are selected for the customer perspective should measure both the value that is delivered to the customer (value position) which may involve time, quality, performance and service and cost and the outcomes that come as a result of this value proposition (e.g., customer satisfaction, market share). The value proposition can be centered on one of the three: operational excellence, customer intimacy or product leadership, while maintaining threshold levels at the other two.

The **internal process perspective** is concerned with the processes that create and deliver the customer value proposition. It focuses on all the activities and key processes required in order for the company to excel at providing the value expected by the customers both productively and efficiently. These can include both short-term and long-term objectives as well as incorporating innovative process development in order to stimulate improvement. In order to identify the measures that correspond to the internal process perspective, Kaplan and Norton propose using certain clusters that group similar value creating processes in an organization. The clusters for the internal process perspective are operations management (by improving asset utilization, supply chain management, etc), customer management (by expanding and deepening relations), innovation (by new products and services) and regulatory & social (by establishing good relations with the external stakeholders).

The **learning and growth perspective** is the foundation of any strategy and focuses on the intangible assets of an organization, mainly on the internal skills and capabilities that are required to support the value-creating internal processes. The learning and growth perspective is concerned with the jobs (human capital), the systems (information capital), and the climate (organization capital) of the enterprise. These three factors relate to what Kaplan and Norton claim is the infrastructure that

is needed in order to enable ambitious objectives in the other three perspectives to be achieved. This of course will be in the long term, since an improvement in the learning and growth perspective will require certain expenditures that may decrease short-term financial results, whilst contributing to long-term success.

**Benchmarking** (also "best practice benchmarking" or "process benchmarking") is a process used in [management](#) and particularly [strategic management](#), in which organizations evaluate various aspects of their processes in relation to [best practice](#), usually within their own sector. This then allows organizations to develop plans on how to adopt such best practice, usually with the aim of increasing some aspect of performance. Benchmarking may be a one-off event, but is often treated as a continuous process in which organizations continually seek to challenge their practices.

Benchmarking in simplistic terms is the process where you compare your process with that of a better process and try to improve the standard of the process you follow to improve quality of the system, product, services etc.

A process similar to benchmarking is also used in technical product testing and in land surveying. See the article [benchmark](#) for these applications.

## Advantages of benchmarking

Benchmarking is a powerful management tool because it overcomes "[paradigm blindness](#)." Paradigm Blindness can be summed up as the mode of thinking, "The way we do it is the best because this is the way we've always done it."

Benchmarking opens organizations to new methods, ideas and tools to improve their effectiveness. It helps crack through resistance to change by demonstrating other methods of solving problems than the one currently employed, and demonstrating that they work, because they are being used by others.

## Collaborative benchmarking

*Benchmarking*, originally invented as a formal process by [Rank Xerox](#), is usually carried out by individual companies. Sometimes it may be carried out collaboratively by groups of companies (eg subsidiaries of a multinational in different countries). One example is that of the [Dutch](#) municipally-owned [water supply](#) companies, which have carried out a voluntary collaborative benchmarking process since 1997 through their industry association.

## Procedure

There is no single benchmarking process that has been universally adopted. The wide appeal and acceptance of benchmarking has led to various benchmarking methodologies emerging. The most prominent methodology is the 12 stage methodology by Robert Camp (who wrote the first book on benchmarking in 1989)<sup>[1]</sup>. The 12 stage methodology consisted of 1. Select subject ahead 2. Define the process 3. Identify potential partners 4. Identify data sources 5. Collect data and select partners 6. Determine the gap 7. Establish process differences 8. Target future performance 9. Communicate 10. Adjust goal 11. Implement 12. Review/recalibrate.

The following is an example of a typical shorter version of the methodology:

**Identify your problem areas** - Because benchmarking can be applied to any business process or function, a range of research techniques may be required. They include: informal conversations with customers, employees, or suppliers; **exploratory research** techniques such as **focus groups**; or in-depth **marketing research**, **quantitative research**, **surveys**, **questionnaires**, **re engineering analysis**, process mapping, quality control variance reports, or financial ratio analysis. Before embarking on comparison with other organizations it essential that you know your own organization's function, process; **base lining performance** provides a point against which improvement effort can be measured.

**Identify other industries that have similar processes** - For instance if one were interested in improving hand offs in addiction treatment s/he would try to identify other fields that also have hand off challenges. These could include air traffic control, cell phone switching between towers, transfer of patients from surgery to recovery rooms.

**Identify organizations that are leaders in these areas** - Look for the very best in any industry and in any country. Consult customers, suppliers, financial analysts, trade associations, and magazines to determine which companies are worthy of study.

**Survey companies for measures and practices** - Companies target specific business processes using detailed surveys of measures and practices used to identify business process alternatives and leading companies. Surveys are typically masked to protect confidential data by neutral associations and consultants.

**Visit the "best practice" companies to identify leading edge practices** - Companies typically agree to mutually exchange information beneficial to all parties in a benchmarking group and share the results within the group.

**Implement new and improved business practices** - Take the leading edge practices and develop implementation plans which include identification of specific opportunities, funding the project and selling the ideas to the organization for the purpose of gaining demonstrated value from the process.

## Cost of benchmarking

Benchmarking is a moderately expensive process, but most organizations find that it more than pays for itself. The three main types of costs are:

**Visit Costs** - This includes hotel rooms, travel costs, meals, a token gift, and lost labor time.

**Time Costs** - Members of the benchmarking team will be investing time in researching problems, finding exceptional companies to study, visits, and implementation. This will take them away from their regular tasks for part of each day so additional staff might be required.

**Benchmarking Database Costs** - Organizations that institutionalize benchmarking into their daily procedures find it is useful to create and maintain a database of best practices and the companies associated with each best practice now.

The cost of benchmarking can substantially be reduced through utilizing the many internet resources that have sprung up over the last few years. These aim to capture benchmarks and best practices from organizations, business sectors and countries to make the benchmarking process much quicker and cheaper.

## Technical benchmarking or Product Benchmarking

The technique initially used to compare existing corporate strategies with a view to achieving the best possible performance in new situations (see above), has recently been extended to the comparison of technical products. This process is usually referred to as "Technical Benchmarking" or "Product Benchmarking". Its use is particularly well developed within the automotive industry ("Automotive Benchmarking"), where it is vital to design products that match precise user expectations, at minimum possible cost, by applying the best technologies available worldwide. Many data are obtained by fully disassembling existing cars and their systems. Such analyses were initially carried out in-house by car makers and their suppliers. However, as they are expensive, they are increasingly outsourced to companies specialized in this area. Indeed, outsourcing has enabled a drastic decrease in costs for each company (by cost sharing) and the development of very efficient tools (standards, software).

## Types of Benchmarking

**Process benchmarking** - the initiating firm focuses its observation and investigation of business processes with a goal of identifying and observing the best practices from one or more benchmark firms. Activity analysis will be required where the objective is to benchmark cost and efficiency; increasingly applied to back-office processes where outsourcing may be a consideration.

**Financial benchmarking** - performing a financial analysis and comparing the results in an effort to assess your overall competitiveness.

**Performance benchmarking** - allows the initiator firm to assess their competitive position by comparing products and services with those of target firms.

**Product benchmarking** - the process of designing new products or upgrades to current ones. This process can sometimes involve reverse engineering which is taking apart competitors products to find strengths and weaknesses.

**Strategic benchmarking** - involves observing how others compete. This type is usually not industry specific meaning it is best to look at other industries.

**Functional benchmarking** - a company will focus its benchmarking on a single function in order to improve the operation of that particular function. Complex functions such as Human Resources, Finance and Accounting and Information and Communication Technology are unlikely to be directly comparable in cost and efficiency terms and may need to be disaggregated into processes to make valid comparison.