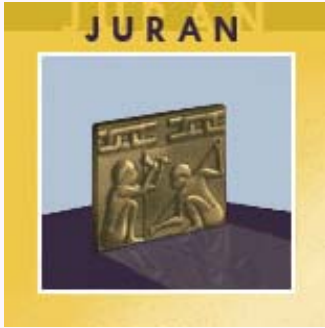


# JURAN *Introduction*



## Who We Are

Juran is an internationally recognized performance improvement, training and consultancy organization. The company was founded in 1979 by Dr. Joseph M. Juran, a pioneer in the field of quality who instituted revolutionary methods of management in Japan after the Second World War. Juran offers a comprehensive range of quality and performance improvement services including: benchmarking, quality management, breakthrough improvement, change management, Six Sigma and lean manufacturing. The company is headquartered in Fairfield County, Connecticut (USA) with offices in Europe and Asia.

## Brief Product Definitions:

### **Benchmarking**

*A method of comparing the performance of organizations, functions or processes against the world-class leaders, aiming to not only match these performance levels, but to exceed them.*

### **Quality Management**

*Tools and techniques to achieve a greater level of quality.*

### **Breakthrough Improvement**

*A set of tools along with a transformation framework to help organizations achieve a higher level of performance.*

### **Change Management**

*A structured methodology for integrating change and the ability to adapt throughout an organization.*

*It is an organized, systematic application of the knowledge, tools, and resources of change to provide organizations with a key process to achieve their business strategy.*

### **Six Sigma**

*The "Six Sigma" term refers to a philosophy, goal and/or methodology utilized to drive out waste and improve the quality, cost and time performance of any business (whether the products are durable goods or services).*

### **Lean Manufacturing**

*Lean techniques focus on adopting an integrated approach to the production process while ensuring resources are utilized as efficiently as possible.*

## Juran and the Oil & Gas Industry

Juran's benchmarking programs embody all facets of the hydrocarbon value chain. We have extensive experience in benchmarking onshore and offshore processing facilities, onshore and offshore pipelines, storage and loading terminals (marine and inland), FPSOs, fuel storage terminals, LNG regasification plants, gas transmission systems, refineries and petrochemical plants.

Juran's proven benchmarking approach goes beyond numerical analysis and always includes a "learning" phase focusing on the transfer of knowledge from best practices. Thanks to nearly 20 years of close collaboration with representatives of the top oil and gas majors, Juran's benchmarking methodology produces a comprehensive analysis, through a normalization process that accommodates the effects of size, capacity, utilization, etc.

Beyond benchmarking, our expertise also extends to the estimation of operating expenditure and manning requirements for new oil and gas projects, manning efficiency studies, and synergy studies for mergers and acquisitions.



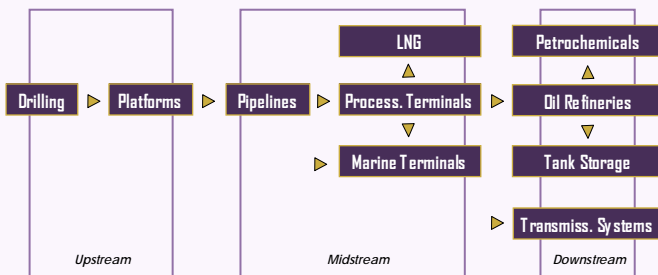
Juran collaborates with more than 200 oil and gas facilities ( i.e. platforms, processing and marine terminals, pipelines, gas transmission systems, storage tanks, refineries, LNG and petrochemical plants).

# JURAN *Introduction*

## Benchmarking with Juran

An increasing number of oil and gas companies, consider benchmarking a strategic instrument for continuous improvement. It enables them to analyze and optimize key business processes that ultimately lead to better financial results and increased customer satisfaction. The strength of benchmarking is that it allows decisions to be made based on facts, not intuition. However, benchmarking requires openness to new ideas and eagerness to learn from what others do best, whether they are inside or outside the industry, domestic or foreign.

Juran offers a large variety of benchmarking programs that embody all facets of the hydrocarbon value chain. (Please see below.) These programs can be both internal (within the same organization) and external (competitive).



More information about each individual program is available on our website.

## What Our Clients Say

"Benchmarking has led to Shell's reengineering of its NS assets maintenance practices leading to 41% maintenance cost reductions. That is why we submitted Juran's program for the European Best Practice Benchmarking Award".

*(Shell, Nicholas Kauffmann, '97)*

"Our operation started to benchmark back in 1999. We did not come out as well as we thought. So we went through a denial phase. After careful analysis and second opinions we accepted that we had substantial room for improvement. We assigned a full time continuous improvement officer. We started with the low hanging fruit and have achieved substantial multi-million savings in OPEX. In the meantime we have been able to make these savings sustainable over time. This year we will attack the second level improvement opportunities and we have again set some aggressive goals (approximately 5 million US\$ savings). In 2005 we aim at achieving a so-called 1st quartile OPEX performance".

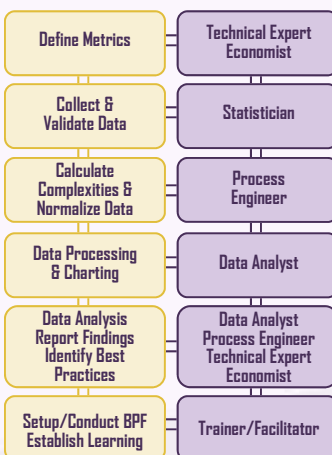
*(BP, Mr. N. Manson, process improvement manager, '03)*

We have reduced our energy costs by 30% thanks to actions taken upon the benchmarking results."

*(NAM-Shell, Mr. P. Drost, Managing Director Den Helder gas processing plant, '02)*

## Our Strength = Our Diversity

### Benchmarking Process Disciplines



Juran has carefully composed an enthusiastic team of experienced consultants that possess the different disciplines required for the various steps in the benchmarking process. Our expertise ranges from management consultancy and statistical skills to design engineering and plant operating know-how. Our dedicated benchmarking team is built around the customers' requirements.

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