



Basic

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Concepts of  
Quality



# What is Quality?

ATTRIBUTES are used to describe QUALITY... examples:

Beauty,  
Goodness,  
Freshness,  
Expensiveness etc

because different people perceive these attributes differently, the use of attributes to describe quality is IMPRECISE.

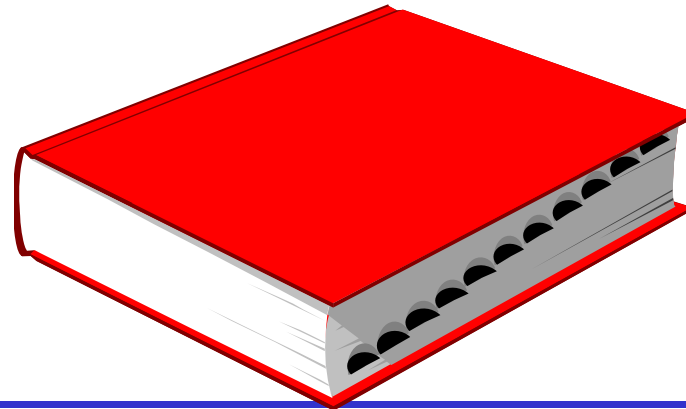
Quality, therefore needs to be defined.



# What is Quality?

According to the Oxford Dictionary (2003), quality is defined as being

- 'the degree of excellence of a thing;
- relative nature or kind or character of a thing;
- class or grade of something determined by this;





# Quality Defined: ISO 9000:2000

Degree to which a set of inherent characteristic fulfils requirements (3.1.1)

- Characteristic – distinguishing feature, i.e. physical, sensory, temporal or functional etc (3.5.1)
- Requirement – need or expectation that is stated or implied or obligatory, i.e. custom or common practice for you! (3.1.2)





# Who defines Quality - the Q Lens

Lens of the organisation

people

products

processes

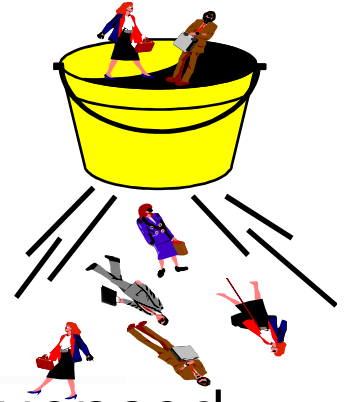
outcomes

results

benefits

Lens of the customer





# Customer behaviours...

- Surveys on the factors we (customers) are influenced by shows that:
  - 30% consider Quality as a decisive factor to buy (the good name and reputation of a product)
  - 19% were persuaded by just the good name of manufacturer
  - 17% by the price and only price
  - 14% by the product's tried and tested features
- Pay more for Quality among the 17% of only Price
  - 9% on average
  - **'It costs 5-20 times more to win a new customer than to keep an existing one'**



# Formal Definition of Quality

Degree to which a set of inherent characteristics fulfils requirements

(ISO 9000:2005 clause 3.1.1)

- Characteristic – distinguishing feature, i.e. physical, sensory, temporal or functional etc (3.5.1)
- Requirement – need or expectation that is stated or implied or obligatory, i.e. custom or common practice for you! (3.1.2)



# What is Quality Management?

- Quality Management (QM) (3.2.8)

  - Coordinated activities to direct and control an organization with regard to quality

- Management system (MS) (3.2.2)

  - System to establish policy and objectives and to achieve those objectives

- Quality Management system (QMS) (3.2.3)

  - Management system to direct and control an organization with regard to quality

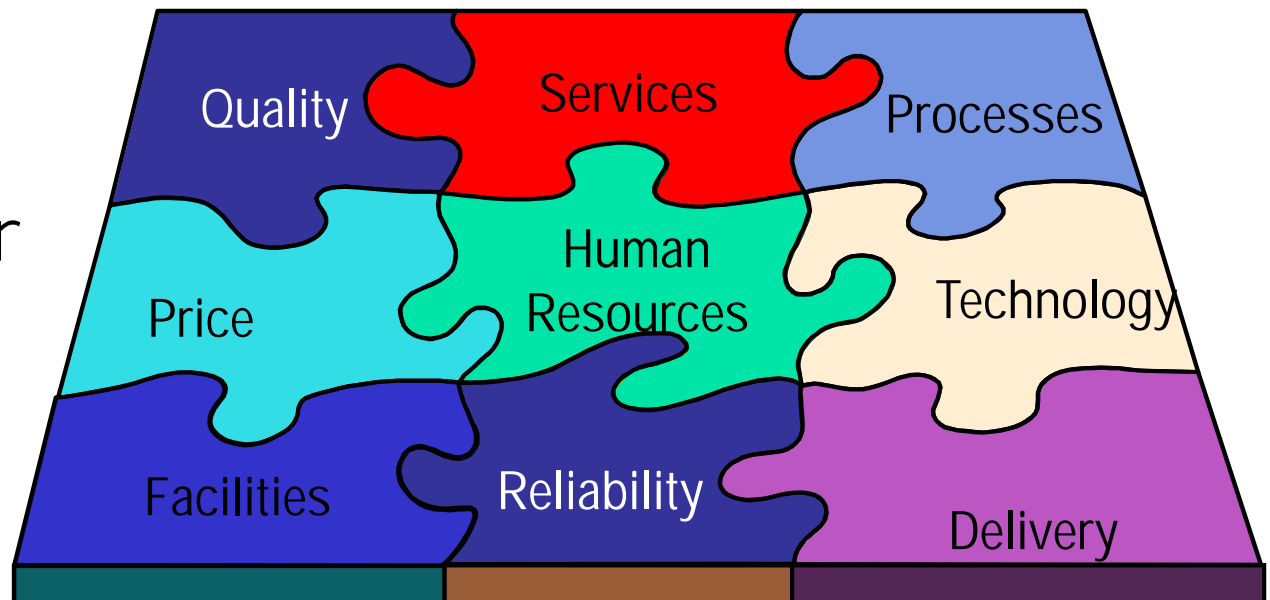




# Is it about Reputation?

The reputation enjoyed by any organization is it built by:

- quality,
- reliability,
- delivery; or
- price...



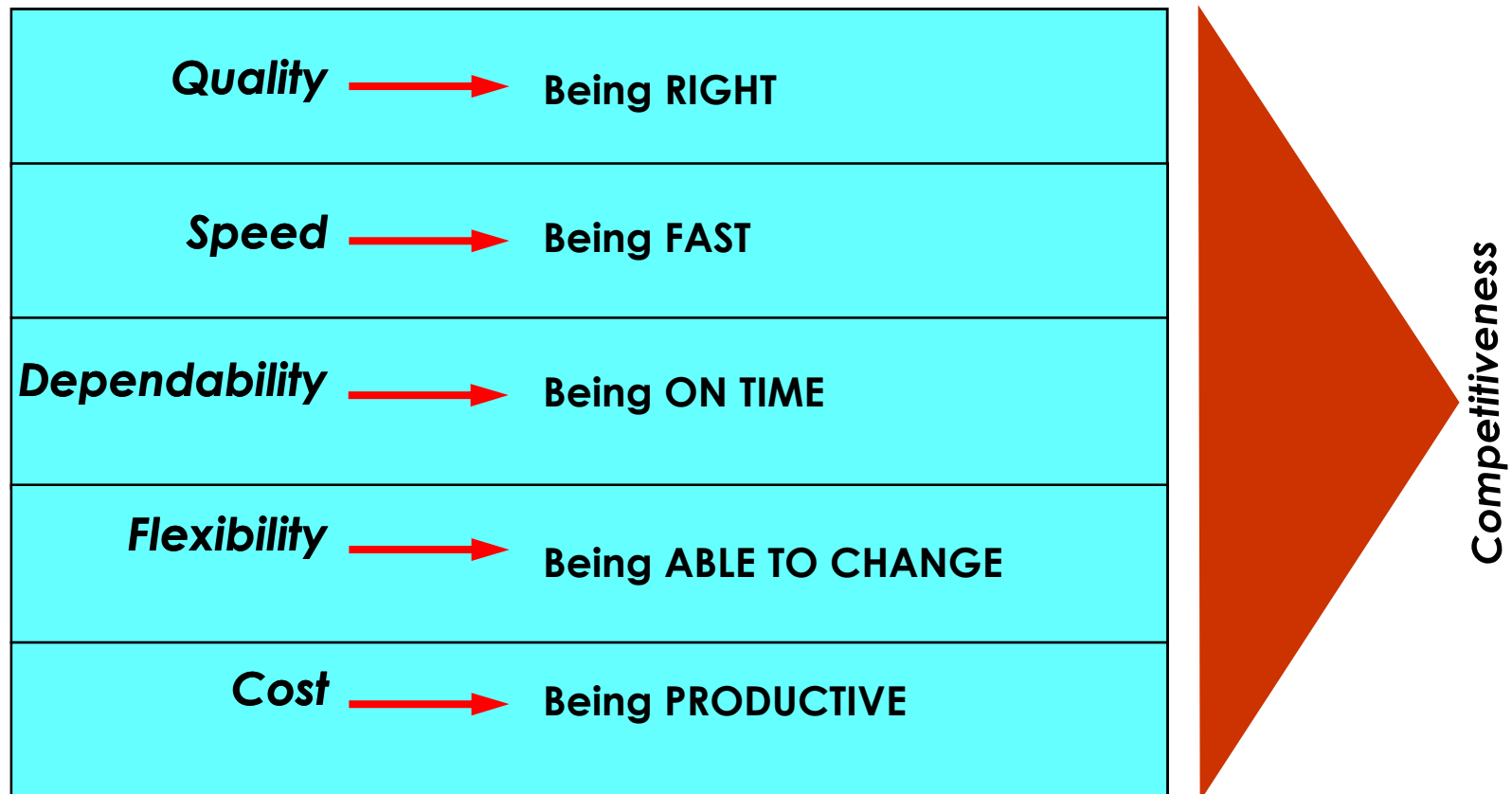


# Exploring reputation...

- Reputations, good or bad, can quickly become national reputations;
  - Made in Kenya?
  - Made in Japan?
- The management of the competitive weapons, such as quality can be learned like any other skill, and used to eventually turn round poor reputation



# Performance objectives for quality





# Dimensions of Quality - Product

## 1. Performance

- ✓ *Basic operating characteristics*

## 2. Features

- ✓ *“Extra” items added to basic features*

## 3. Reliability

- ✓ *Probability product will operate over time*

## 4. Conformance

- ✓ *Meeting pre-established standards*

## 5. Durability

- ✓ *Life span before replacement*



# Dimensions of Quality - Product

## 6. Serviceability

- ✓ *Ease of getting repairs, speed & competence of repairs*

## 7. Aesthetics

- ✓ *Look, feel, sound, smell or taste*

## 8. Safety

- ✓ *Freedom from injury or harm*

## 9. Other perceptions

- ✓ *Subjective perceptions based on brand name, advertising, etc*



# Dimensions of Quality Service

## 1. Time & Timeliness

- ✓ Customer waiting time, completed on time

## 2. Completeness

- ✓ Customer gets all they asked for

## 3. Courtesy

- ✓ Treatment by employees

## 4. Consistency

- ✓ Same level of service for all customers

## 5. Accessibility & Convenience

- ✓ Ease of obtaining service

## 6. Accuracy

- ✓ Performed right every time

## 7. Responsiveness

- ✓ Reactions to unusual situations





# Historical Development of QM

The development of quality management can be defined in four stages:

- (1) Quality inspection stage (QI) – 1920s;
- (2) Quality control stage (QC) – 1950s;
- (3) Quality assurance stage (QA) – 1970s;
- (4) Total Quality management (TQM) stage



# Quality: meeting requirements

- Specifications are imprecise means of conveying subjective aspects, i.e.
  - Not everything is measurable, e.g. courtesy or friendliness
- Thus, Conformance to requirements is not necessarily all there is to achieving quality

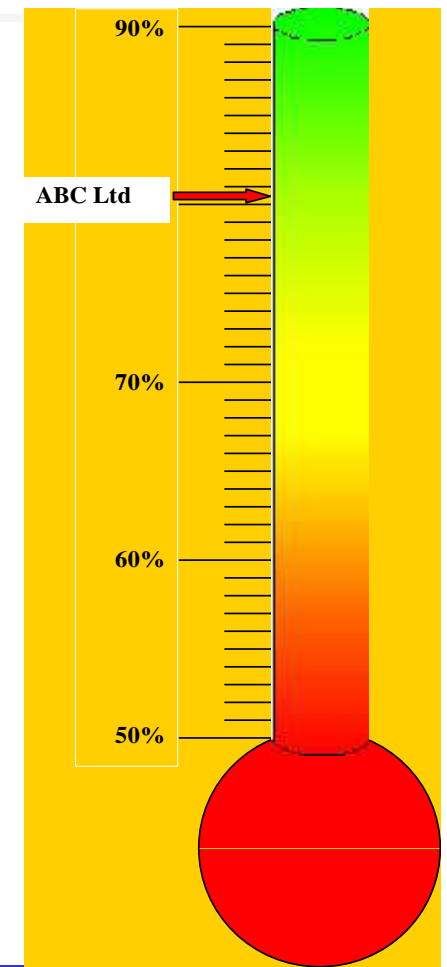






# Quality: Customer Satisfaction

- Customer Satisfaction or is it meeting requirements?
- Only true measure of acceptable quality...
  - Takes account of both subjective and objective interpretations of needs and expectations
  - Correct interpretation of needs and expectations...acceptable quality





# Customers' Changing Perceptions

Needs and Expectations of customers constantly change:

- Technology – Mobile phones
- Challenges.
- Legislation – EMCA, Procurement
- Competitor products



Wants become demands next time!!!

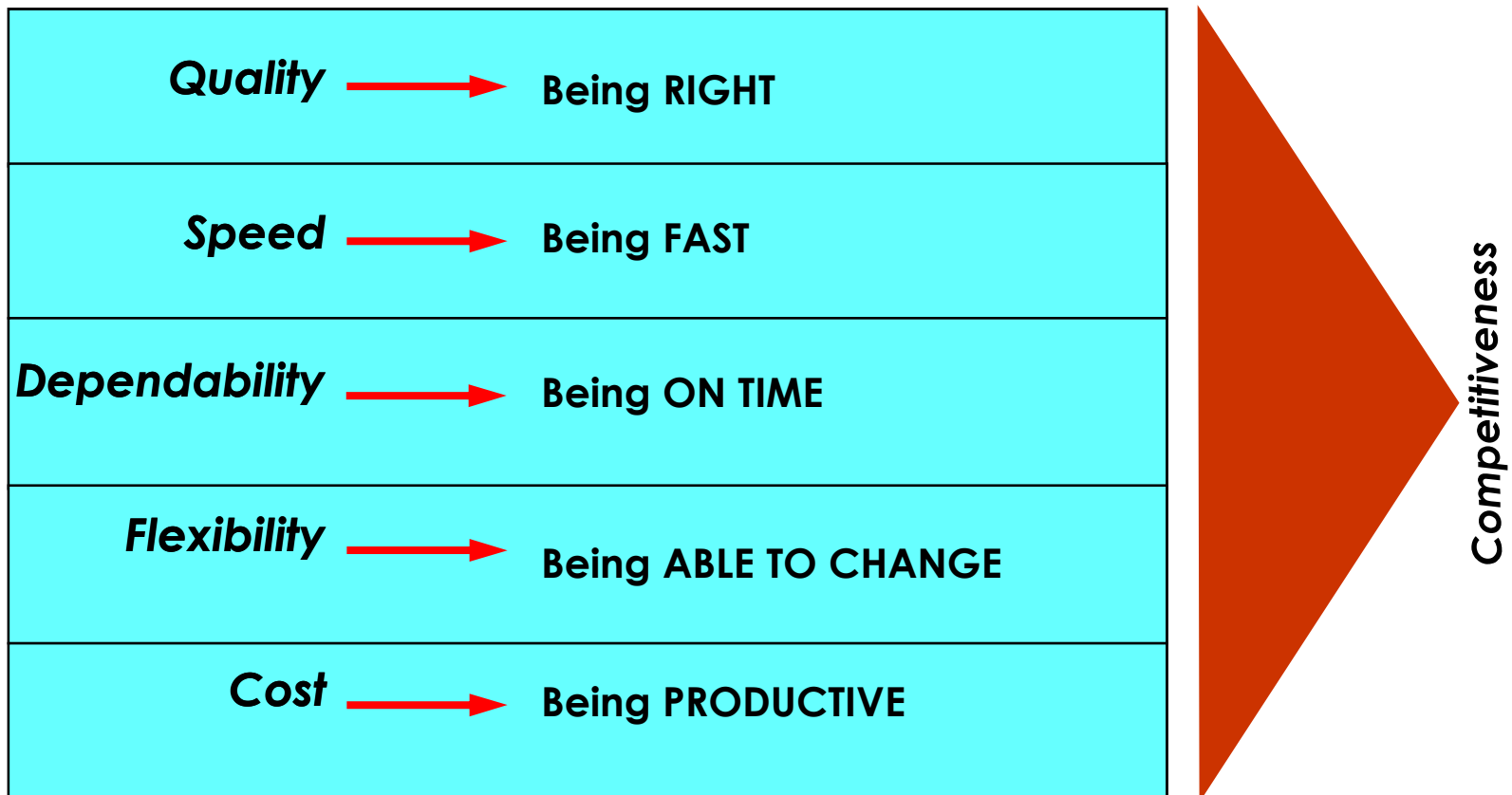


# Quality and Value

- Value is not a price tag but measure of perceived benefits (meet requirements but...)
  - Training outcome
- Functionality but overpriced
- Value for Money???? (50cents less)
- Quality of the complete transaction counts...service quality as well...human relationship – Banks (attempt to reduce costs)



# Quality: the performance objective





# Quality: Customer/Supplier Chains

## Customer/Supplier Chains

- There exists in every department, organization, even household a series of suppliers and customers
- The typist is a supplier to her supervisor is she meeting his or her requirements? Is error free typing set out as wanted, when wanted? If so then we have a quality typing service.



# Customer/Supplier Chains

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To achieve customer satisfaction:-

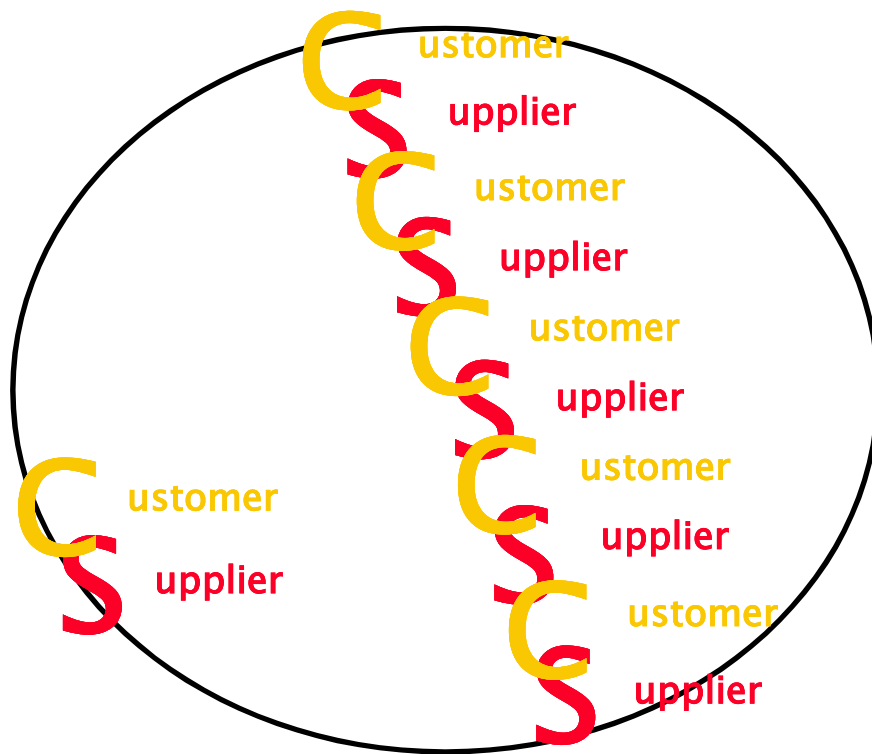
- identify
- strengthen

customer –supplier chains within the organization.



# Customer/Supplier Chains

*Outside Organisation*



*Outside Organisation*

The concept of internal and external customer-suppliers forms the core of the total quality approach:

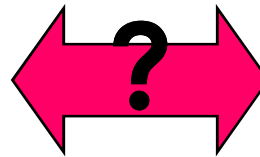
- A deliberate effort has to be made to manage quality...it will not just happen
- Failure to meet requirements in any part of a quality chains have a way of multiplying



# Cost of Quality

## Cost of good Quality

- **Prevention**
  - Planning
  - Design
  - Process
  - Training
  - Information
- **Appraisal (=control)**
  - Inspection
  - Testing
  - Equipment
  - Operator



## Cost of poor Quality

- **Internal failure**
  - Scrap
  - Rework
  - Process failure
  - Downtime
  - Price reduction
- **External failure**
  - Complaints
  - Returns
  - Warranty Claims
  - Liability
  - Lost sales





# Quality of Defects

## A Defect

- Non conformance of a unit of a product with specified requirements

Minor- Unnoticeable

Major- Cause stoppage of operations, may affect performance

Critical- Must be attended to Promptly

## Causes of Defects

- lack of Know How
- carelessness
- Improper Designs
- Lack of or insufficient instructions
- Inherent errors in RM,MACHINES



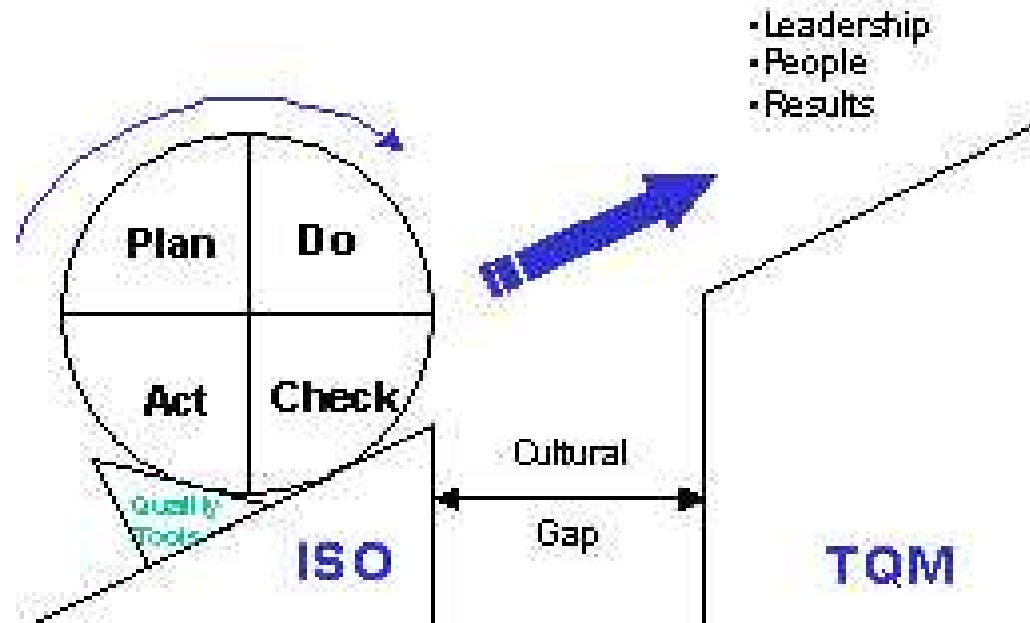
# The ISO 9000 Concept...

- Represents an international consensus on good management practices for a systematic and generic application of principles and practices based on quality
- ISO 9000 is a written standard that defines the basic elements of a QMS that organizations should use to ensure that their products and/or services meet or exceed customer expectations
- Is a set of standardized requirements for QMS and is applicable to any organization regardless of its size or whether public or private sectors



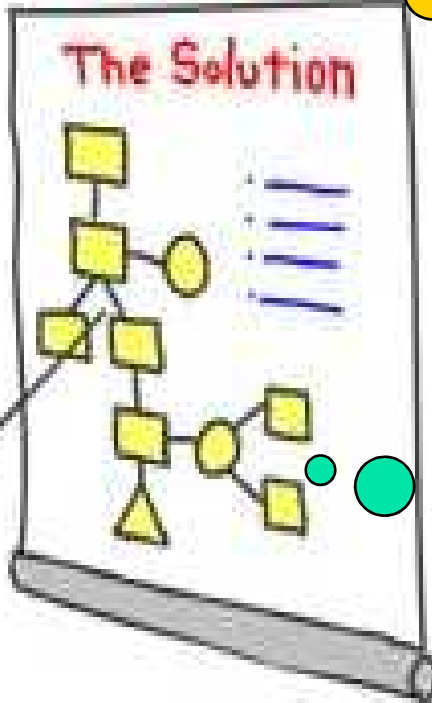
# The ISO 9000 Concept...

- ISO 9000 is seen as a vehicle towards TQM
- The principal goal of the ISO 9000 Standards is to demonstrate quality assurance
- “Quality culture” refers to the degree of awareness, commitment, collective attitude and behaviour of the organization with regard to quality.





# Quality for what?



**Question:** *How much of the training and education effort should be devoted to **QUALITY?***

**Reply:** *What fraction of your work do you want done without **QUALITY?***

Notable quotable:

**Myrion Tribus**

28/28