

Total Quality Management



Introduction

- **Total** – Made up of the whole(or) Complete.
- **Quality** – Degree of Excellence a product or service provides to the customer in present and future.
- **Management** – Act , art, or manner of handling , controlling, directing, etc.

TQM is the art of managing the whole to achieve excellence.



"TQM is a management approach for an organization, centered on quality, based on the participation of all its members and aiming at long-term success through customer satisfaction, and benefits to all members of the organization and to society."

Definition

TQM is composed of three paradigms:

Total: Organization wide

Quality: With its usual Definitions, with all its complexities (External Definition)

Management: The system of managing with steps like Plan, Organise, Control, Lead, Staff, etc.

Definition

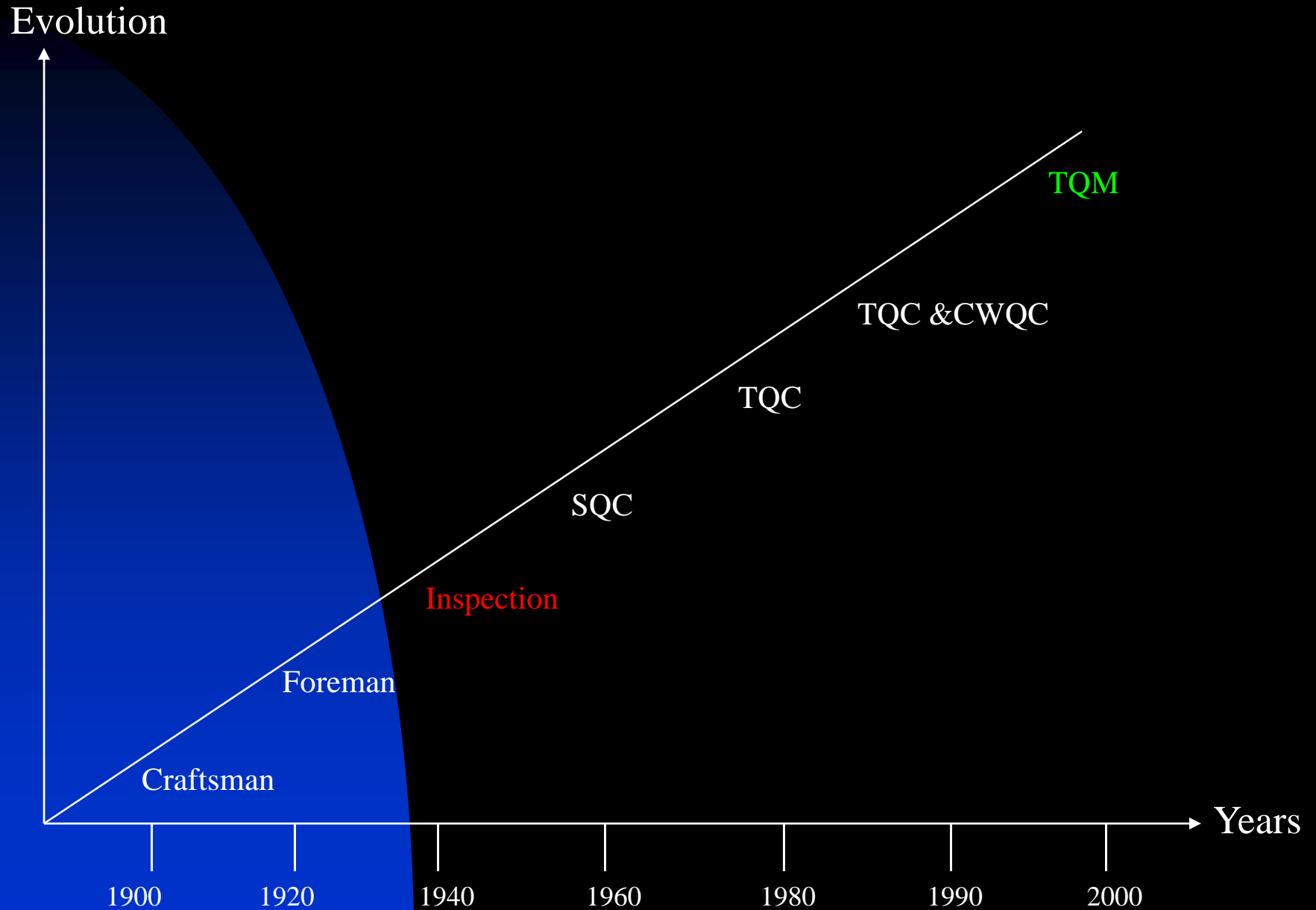
Total Quality Management (TQM) is a management strategy aimed at embedding awareness of quality in all organizational processes.

Explanation

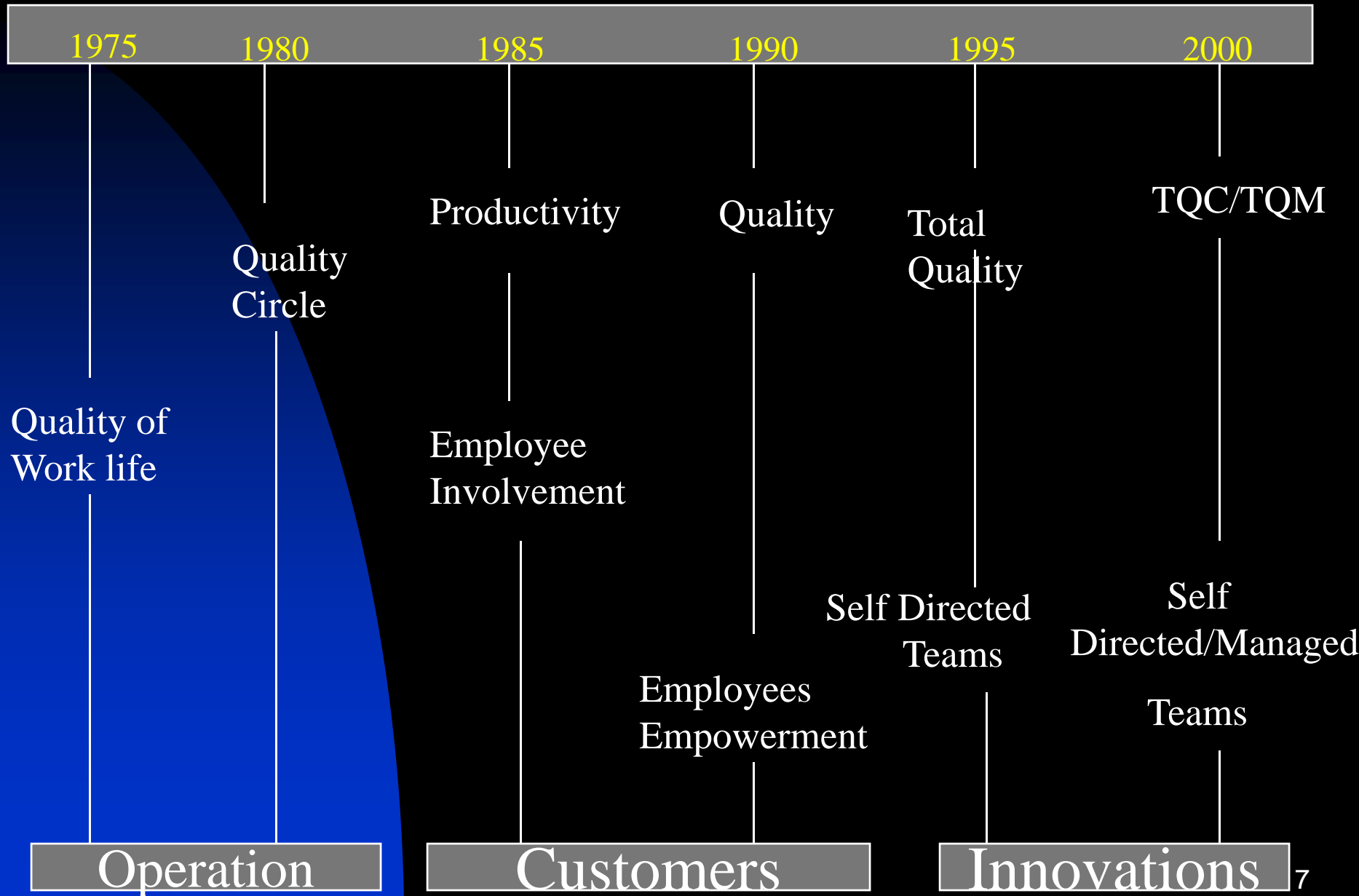
TQM requires that the company maintain this **quality standard** in all aspects of its business.

This requires ensuring that things are done right the first time and that defects and waste are eliminated from operations.

Evolution of quality Era



Evolution of quality –Means & Focus



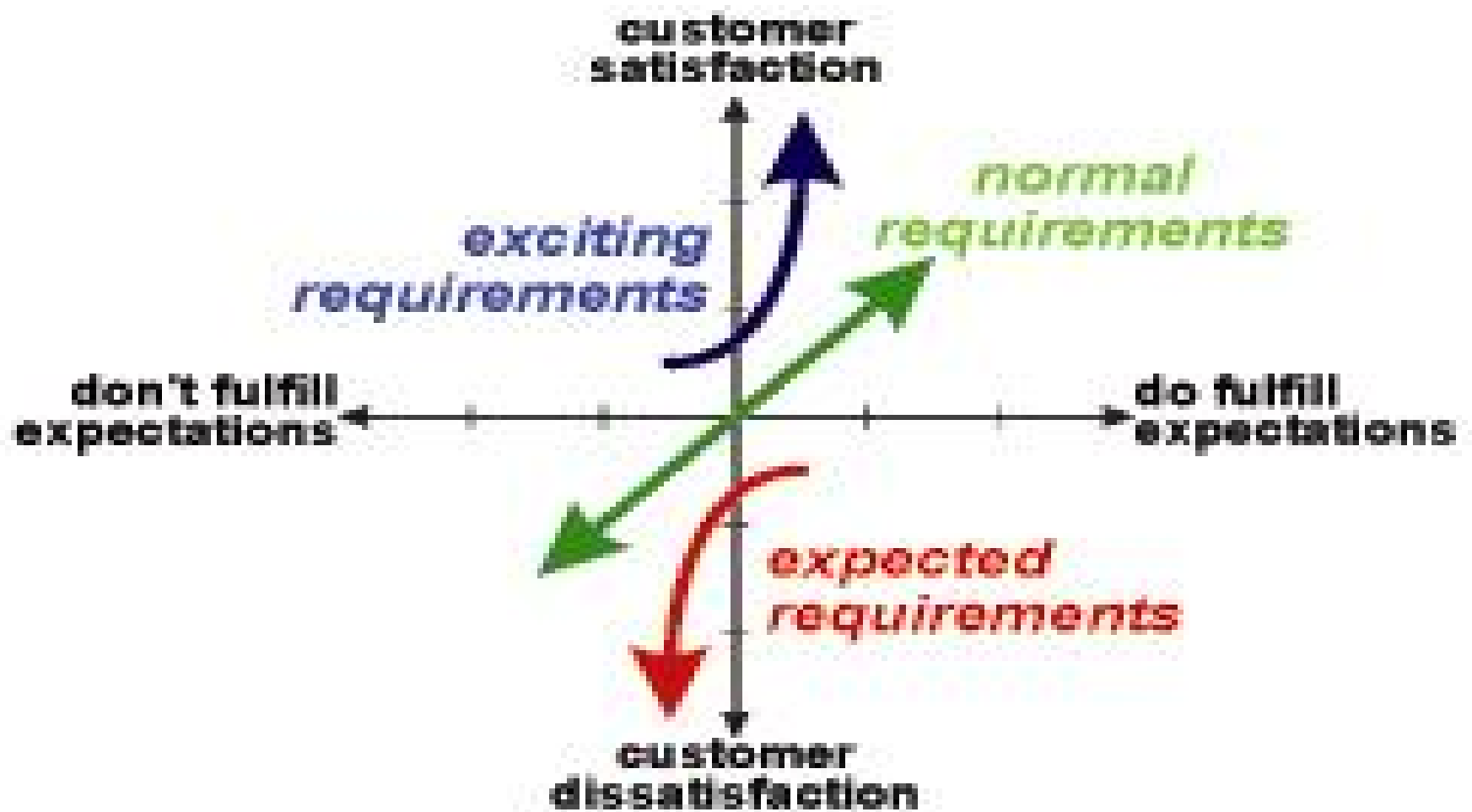
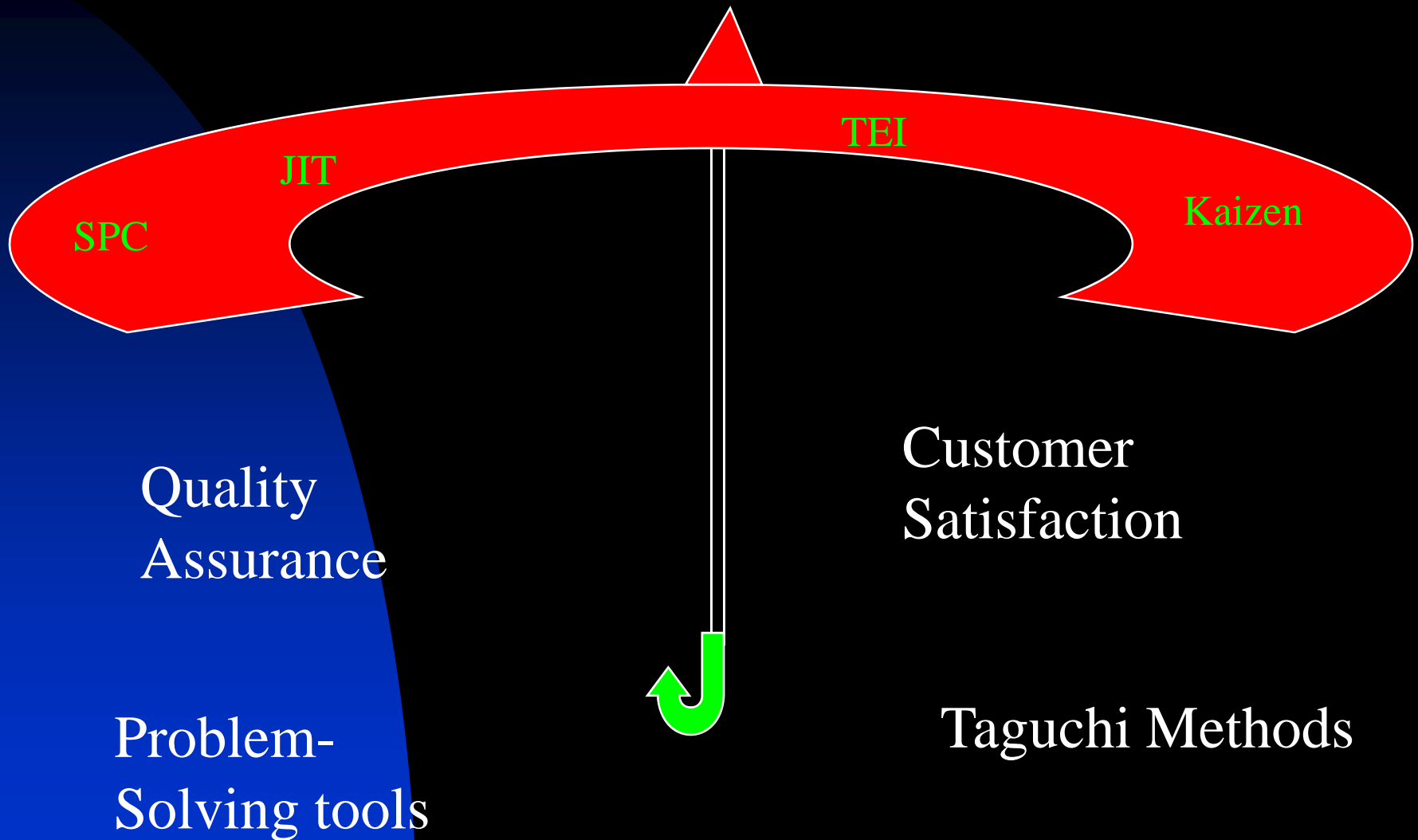


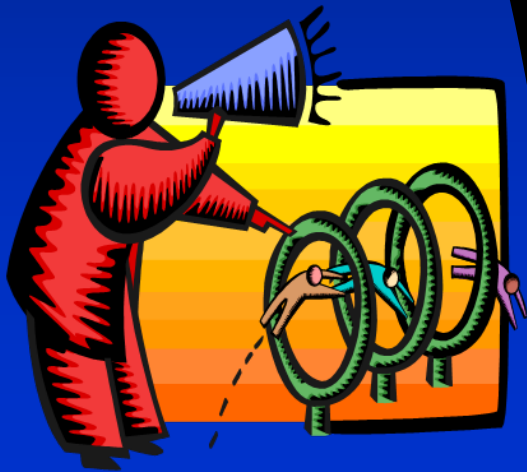
Figure 1. Kano Model

Umbrella Model of TQM



Basic Approach

- A committed and involved management to provide long-term top - to - bottom organizational support.
- An unwavering focus on the customer, both internally and externally.
- Effective involvement and utilization of the entire work force.



Basic Approach

- Continuous improvement of the business and production process.
- Treating supplier as partners.
- Establish performance measures for the processes.

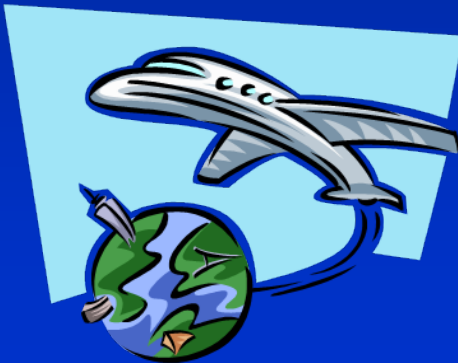


New and Old Cultures

Quality Element

TQM

- Definition -Product Customer
- Priorities -Service &Cost Quality
- Decisions- Short Long
- Emphasis- Detection Prevention₂

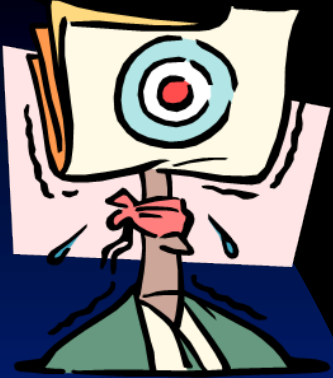


New and Old Cultures

- Errors- Operations System
- Responsibility- QC Every Body
- Problem Solving - Managers Teams
- Procurement- Price Partners/JIT
- Manager's Role- Plan Delegate
Assign Coach
Enforce Mentor



Real Life



- TQM has being implemented in TVS Group.

- Boeing Aircraft

- Reliance



- Tata L & T HMT
- ITI

Guru's of TQM

- Walter.A.Shewhart -TQC &PDSA
- W.Edwards Deming- 14 Points & PDCA
- Joseph.M.Juran-Juran's Trilogy
- A.Feiganbaum-Customer requirement,CWQC,Employee Involvement, TQC.



Guru's of TQM

- Kaoru Ishikawa-Disciple of Juran & Feigenbaum. TQC in Japan, SPC, Cause & Effect Diagram, QC.
- Philips.B.Crosby. Four Absolutes-Quality-Req, Prevention of NC, Zero Defects & Measure of NC.
- Taguchi.G-Loss Function.



Definitions

- ISO 9000:2000

Quality is the degree to which a set of inherent characteristics fulfills requirements.

- Quantified

$Q = P/E$ P-Performance
 E-Expectations

- Joseph M. Juran Quality is fitness for use or purpose



Definitions



- Philips B

Crosby

Quality is Conformance to requirements

- W. Edwards Deming

A predictable degree of uniformity and dependability
at low cost and suited to market

- Bill Conway

**** Development, manufacture, administration
And distribution of consistently low cost and
products and services that customers need and
want.

Dimensions of Quality

Product- TV

Performance - Primary Characteristics, such as brightness

Features –Secondary Characteristics, Remote Control

Conformance-Meeting Specifications or Standards

Reliability –Consistency of Performance over time-fail

Durability- Useful life ,include Repair.
Service





Dimensions of Quality

Durability- Useful life ,include repair.



Service-Resolution of problems,ease of repair.



Response- Human relations with Customers.

Aesthetics-Sensory Features.

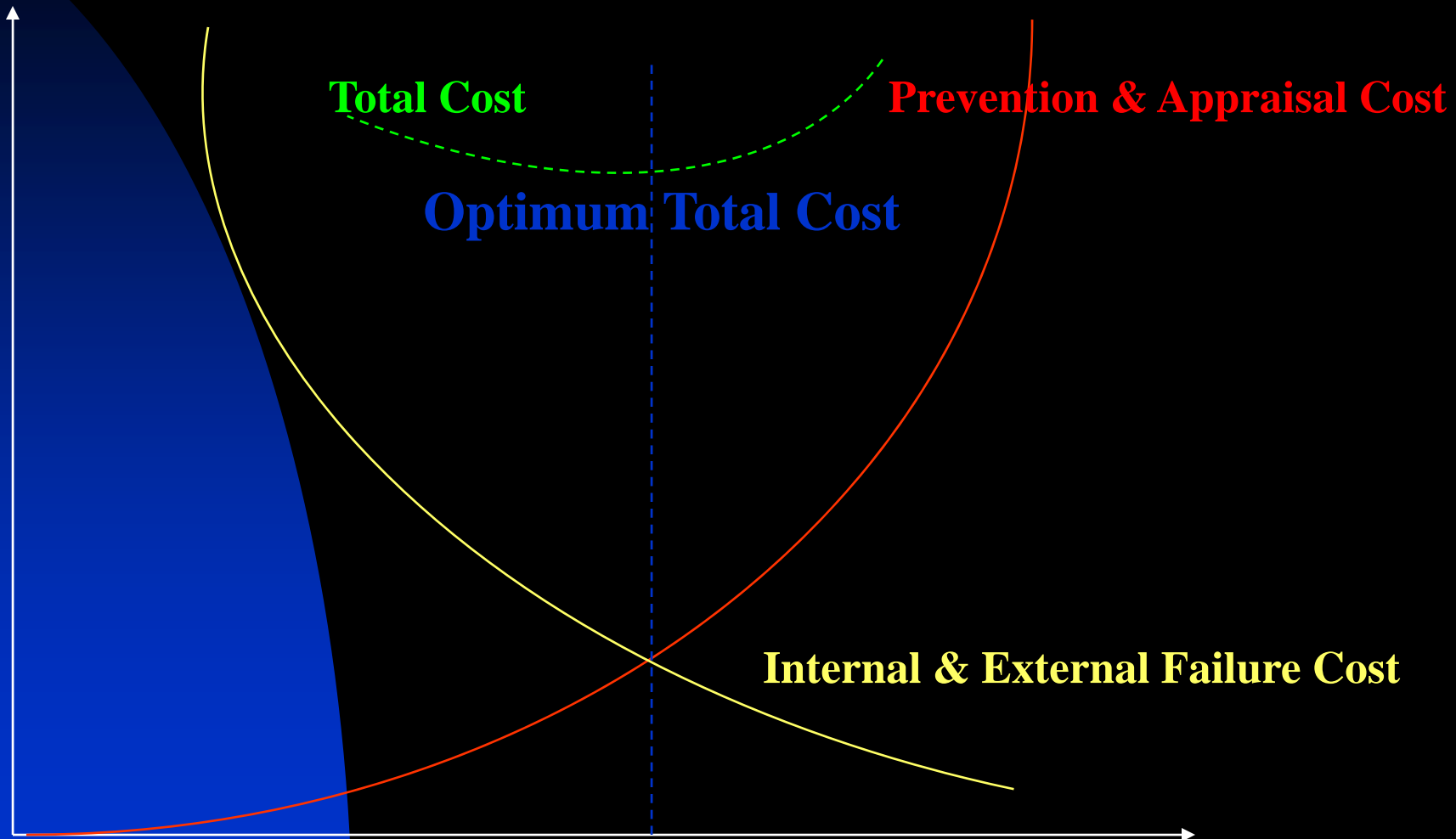


Reputation- Past performance, Company Image.

Quality Cost

- Prevention Cost –Planning, Document, Control, Training
- Appraisal Cost –Inspection & Tests, Installation, Calibration, M/c Depreciation, Reports & Rejects.
- Internal Failure Cost – Scraps, Repair Rework, Design Changes, Defect Failure Analysis, Retests & ReInspection, Downgrading, Down Time.
- External Failure Cost – Complaints, Goodwill, Failures, Services & Replacement, Guarantee & Warranty, Compensation, Recall, Loss of Sales, Seconds Sales.

Economics of Quality of Conformance



Obstacles

Top management commitment

Changing Organization Culture

Improper planning

Continuous Training & Education



Obstacles

Organization Structure & Departments

Data's & Facts For Effective Decisions

Internal & External Customers-
Dissatisfaction

Empowerment & Teamwork

Continuous Improvement



Benefits

Improved Quality

Employee Participation

Team Work

Internal & External Customer Satisfaction

Productivity ,Communication

Profitability & Market Share

