

Project Quality Management

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Project Quality Management

Lecture 1

PMG354

Quality Fundamentals and Concepts

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Lecture

01

Objectives



At the end of this lecture, we expect to acquire a knowledge about the different meaning and concepts of quality to be considered when planning and executing projects in order to achieve the intended outcome.



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Contents

- What does quality mean ?
- Quality grade & Quality class
- Characteristics of quality
- Quality Cost
- Responsibility for quality
- Benefits of quality
- Management of quality
- Evolution of quality-related thinking
- Quality Assurance and Quality Control

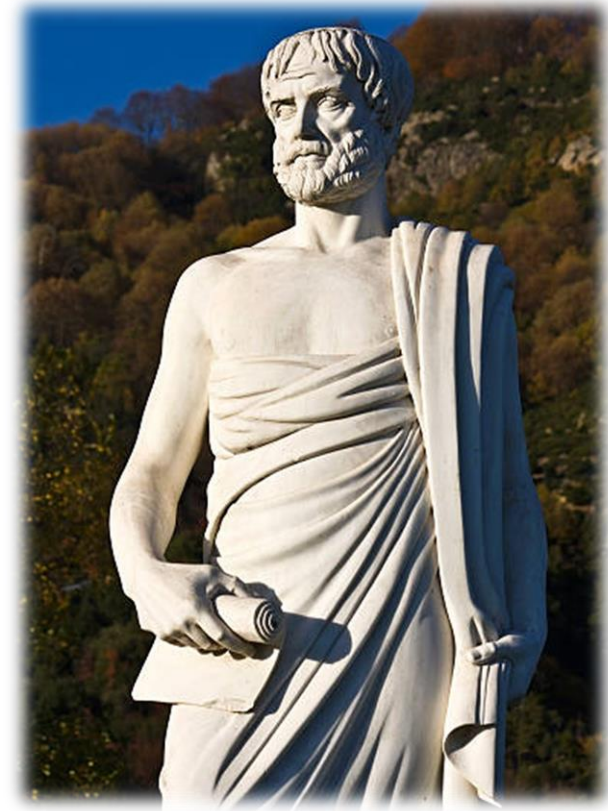
Lecture

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What does quality mean ?

“Quality is not an Act...
it is a Habit.”

- Aristotle



Quality may be defined as :

The degree to which
a set of inherent
characteristics fulfills
requirements



“Conformance to
customer requirements
(including laws, rules,
procedures, policies and
standards).”





Quality meaning in different areas of society

Airlines

On-time, comfortable, low-cost service

Health Care

Correct diagnosis, minimum wait time, lower cost, security

Food Services

Good product, fast delivery, good environment

Postal Services

Fast delivery, correct delivery, cost containment

Academia

Proper preparation for future, on-time knowledge delivery

Insurance

Payoff on time, reasonable cost

Automotive

Defect-free

Quality

Is

“All about Customer Satisfaction”

Who is the customer?

Who contracts with
the organization for
specific purposes

Who is witness on
the quality of
products and
services

Quality Grade and Quality Class



Quality Class



The type of product that
fulfill the customer
requirement

Quality Grade



Differences in
product or service
performance

Characteristics of Quality

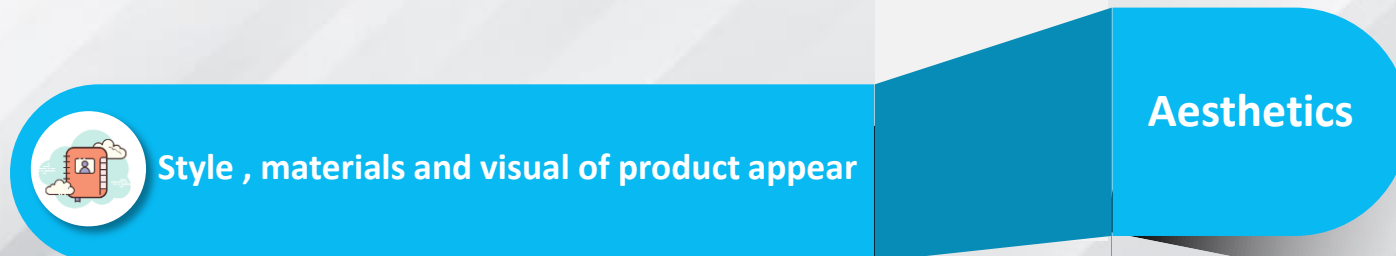
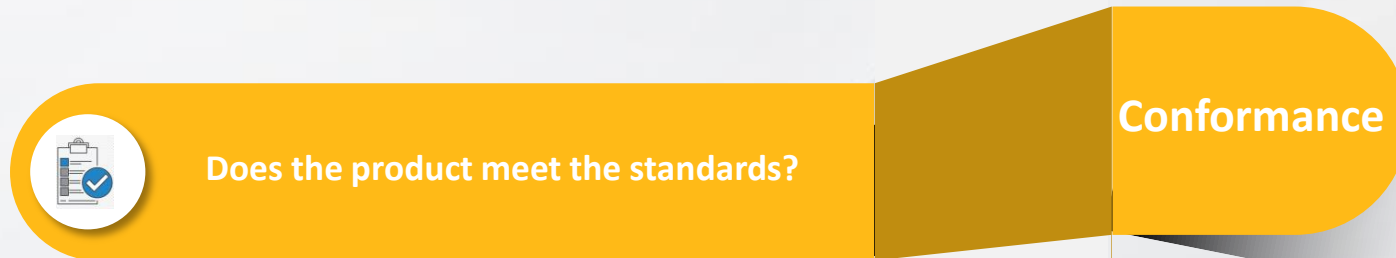


Quality of Product



Criteria for Quality Product

Measuring product quality characteristics is absolutely crucial , but there are some techniques and metrics for measuring quality.



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What is the ease of fixing or repairing the product if it fails ?

Serviceability



Are attributes of a product that supplement the product's basic performance

Features



This criterion defines how much the consumer will benefit from the product service before it starts to lose its quality?

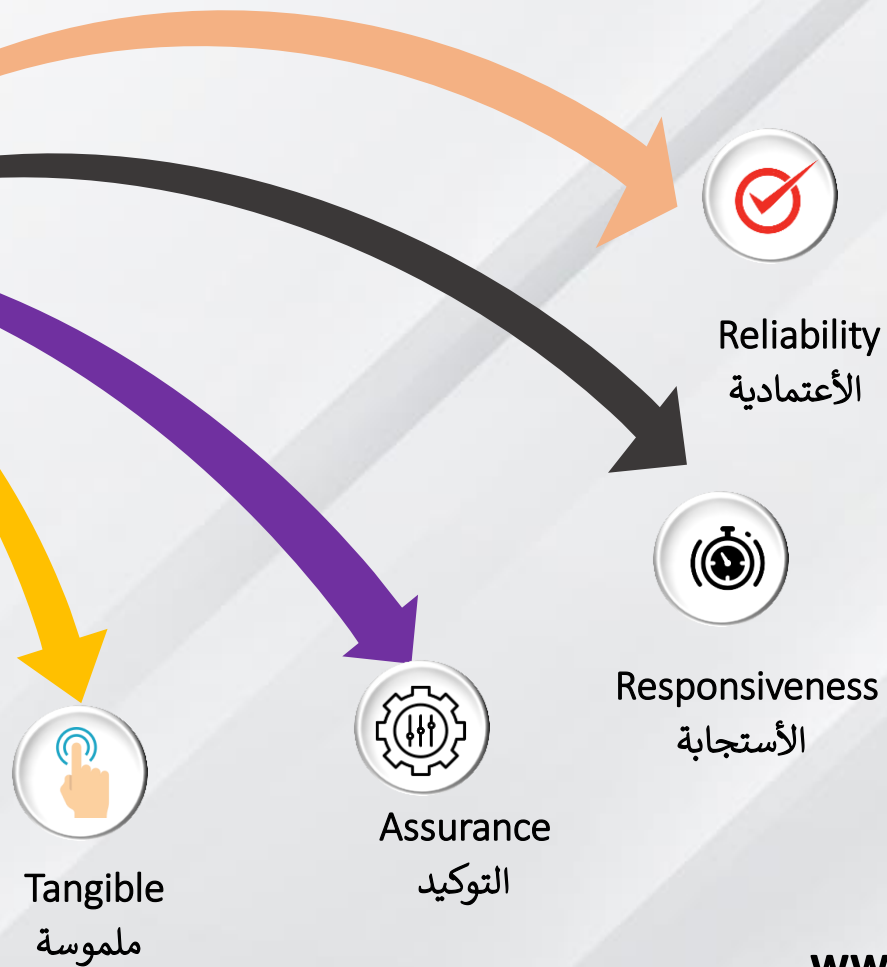
Durability



Refers to the effectiveness with a product achieves its intended purpose.

Performance

Quality of Service



**Criteria for
Quality
Service**

Measuring service quality is absolutely crucial , but there are some techniques and metrics for measuring quality.

Reliability

It relates to the ability of the service provider to perform the promised service accurately



Responsiveness

The ability to deal effectively with complaints and promptness of the service



Assurance

Refers to the knowledge of employees and their ability to inspire trust and confidence



Tangibles

The state of facilitating goods; physical condition of the buildings and the environment; appearance of personnel; and condition of equipment



Quality Cost



The quality cost is generally classified into two main categories

COPQ

Internal cost

Cost associated with **defects** found **before** the customer receives the product or service

External cost

Cost associated with **defects** found **after** the customer receives the product or service

COQ

Inspection cost

Cost incurred to determine the **degree of conformance** to quality requirements

Prevention cost

Cost incurred to **Prevent poor quality**

Who Is Responsible for Quality ?

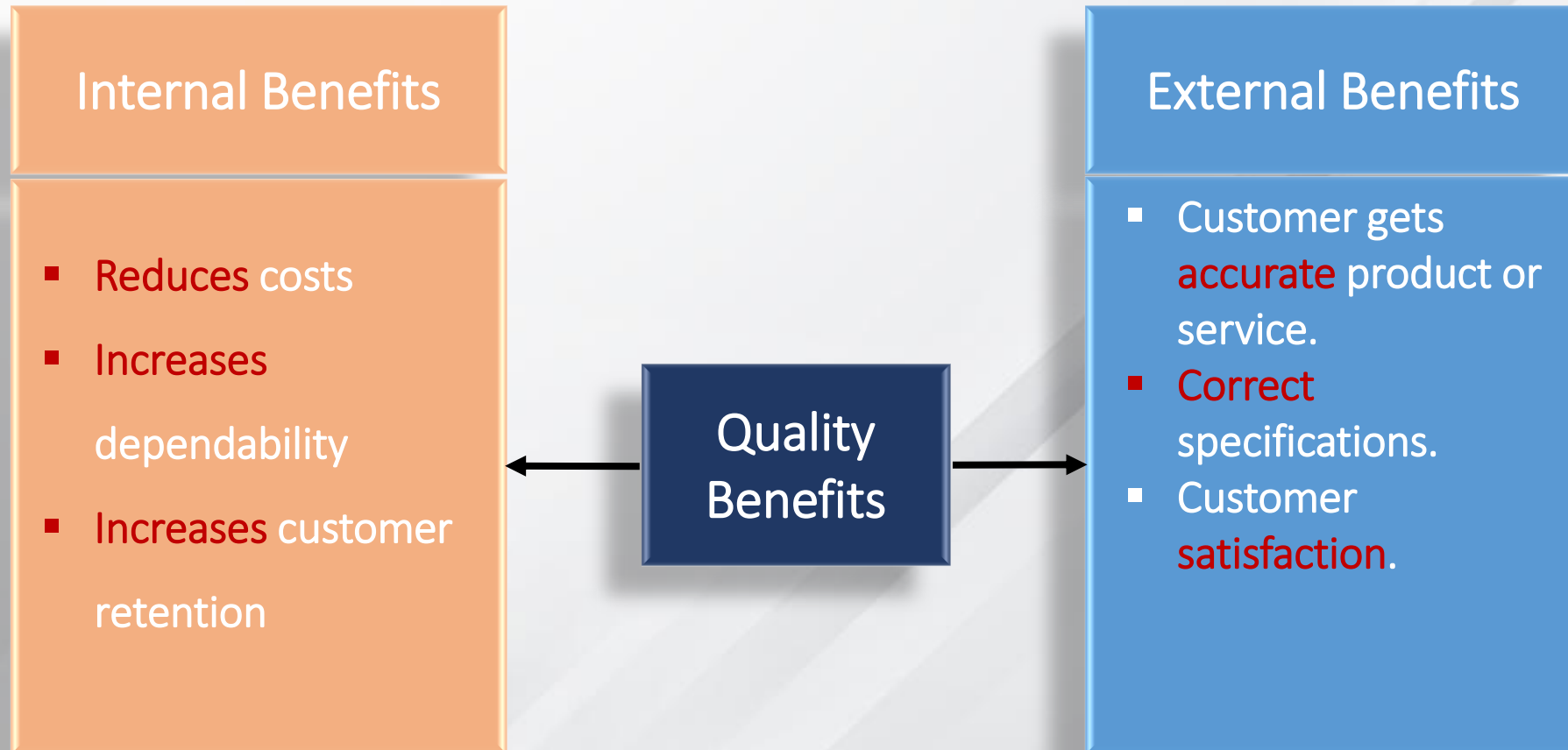


QUALITY

**IT'S
EVERYONE'S
RESPONSIBILITY**

Benefits of Quality





Management of Quality



01

First Step : Plan Quality
What is quality and how will we ensure it?

02

Second Step : perform Quality Control
Are we meeting the quality standards?

03

Third Step : perform Quality Assurance
Are we Following the quality standards?

Evolution of quality-related thinking



The challenge that companies face in the 21st Century is to succeed in a global economy where competition is huge and where customers are becoming increasingly demanding of quality.

It is realized that the survival of business comes from the strong relationships between the organization itself and its **interested parties** to satisfy their needs and expectations.



Lecture

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Evolution of quality-related thinking

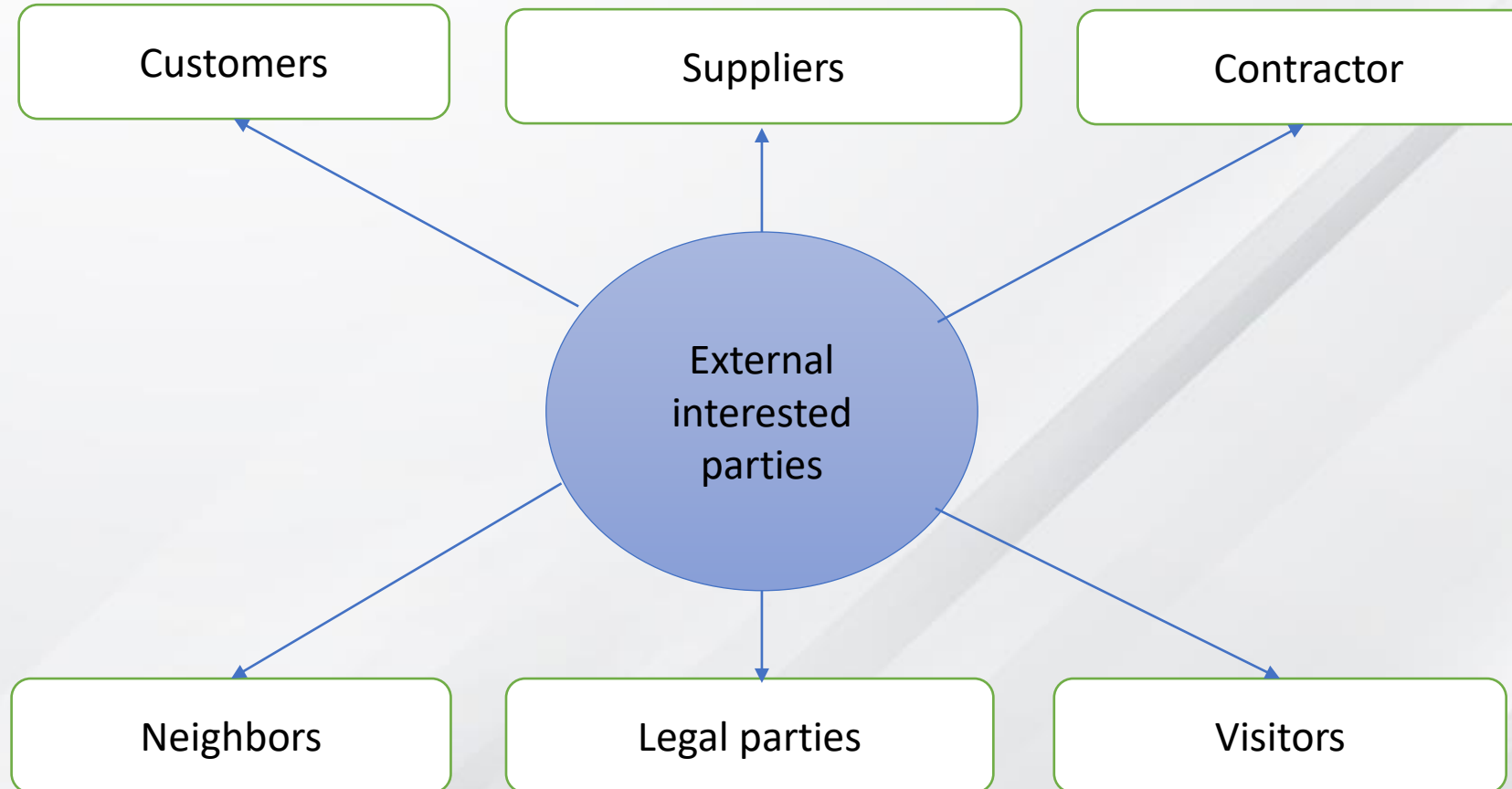
In delivery of products or services, three aspects have to be considered - price, quality and delivery

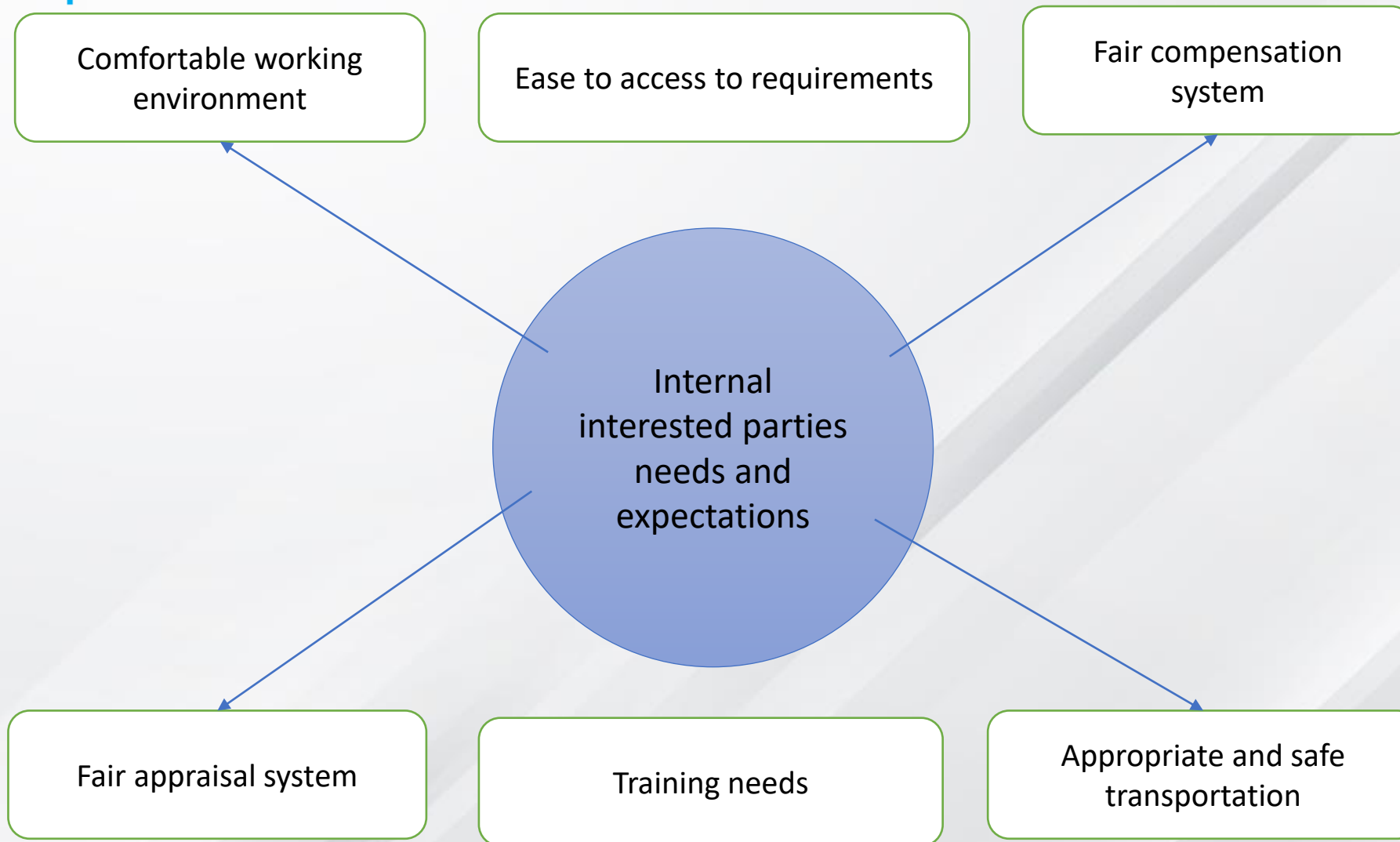
definition

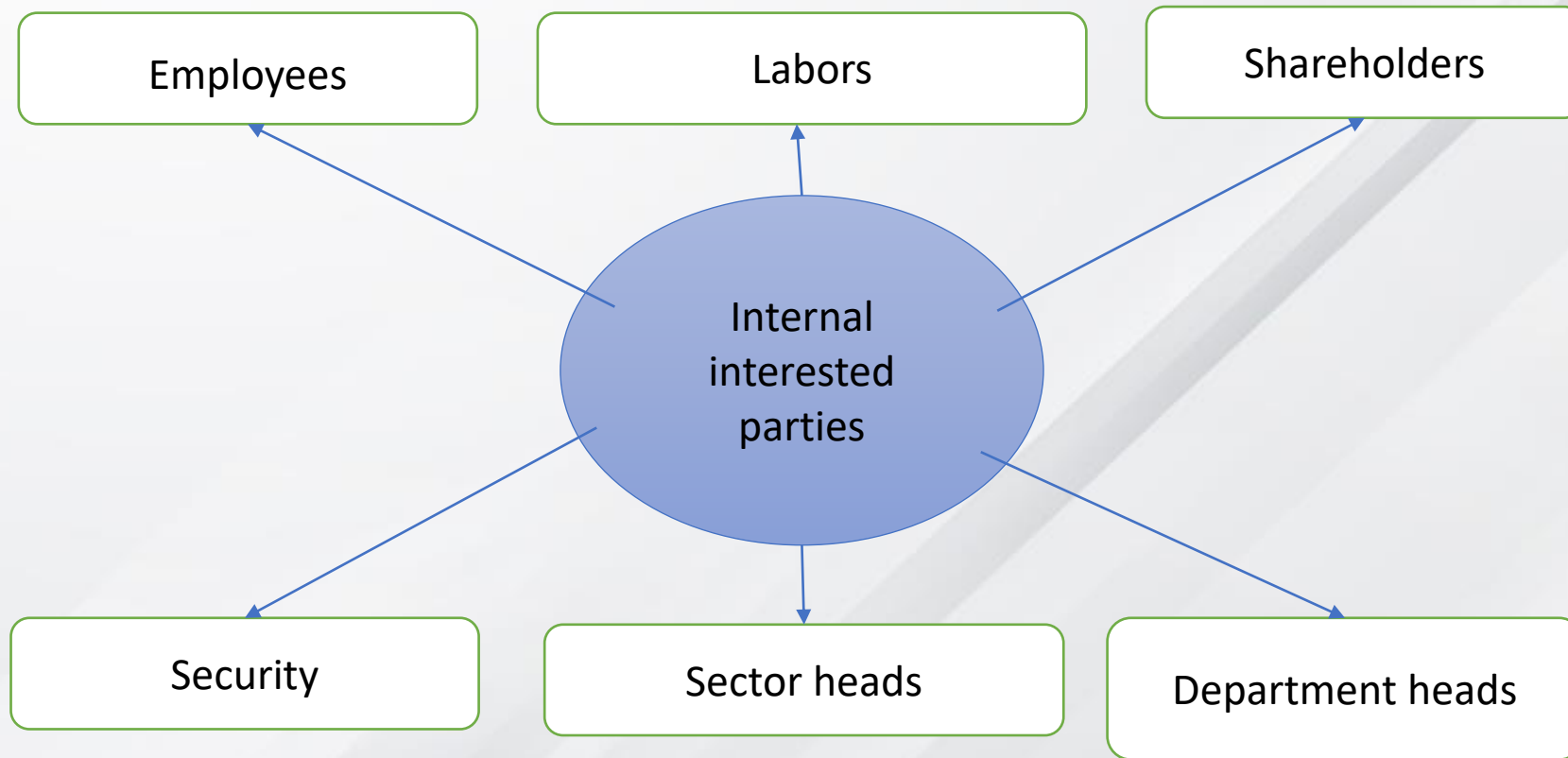


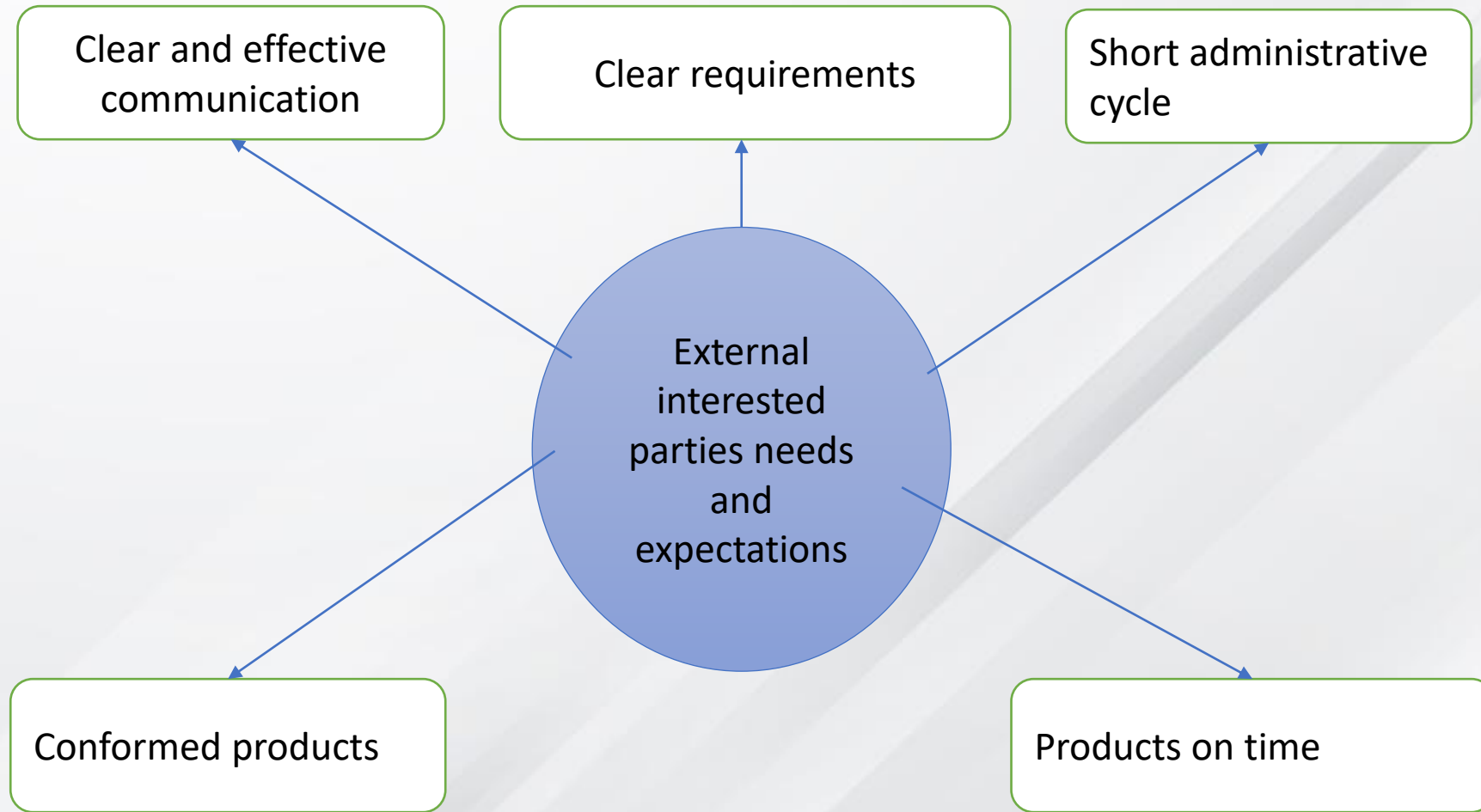
INTERESTED PARTY / stakeholder

person or organization that can affect, be affected by,
or perceive itself to be affected by a decision or
activity

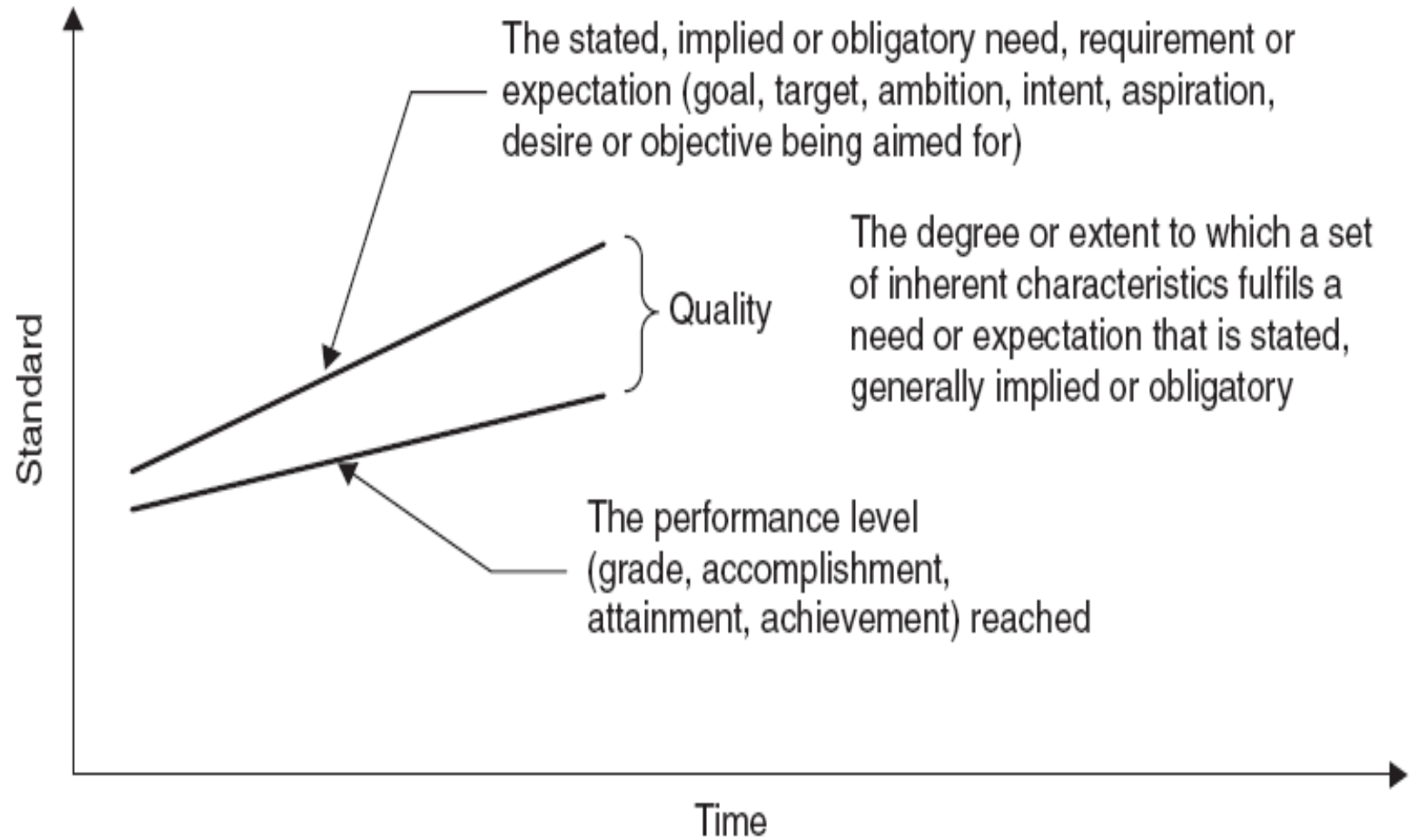








So..... What Is Quality?



Differences Between Quality Assurance and Quality Control



Both QC and QA personnel.
Control is defined as
“To check, test, or verify by evidence
or experiments”
Assurance is defined as
“Confidence of mind or manner.”



	Quality Assurance (QA)	Quality Control (QC)
Definition	QA is a set of activities for ensuring quality in the processes by which products are developed	QC is a set of activities for ensuring quality in products – services . The activities focus on identifying defects in the actual products produced.
Focus on	QA aims to prevent defects with a focus on the process used to make the product. It is a proactive quality process.	QC aims to identify (and correct) defects in the finished product. Quality control, therefore, is a reactive process.
Goal	The goal of QA is to improve development and test processes so that defects do not arise when the product is being developed.	The goal of QC is to identify defects after a product is developed and before it's released .
How?	- Establish a good quality management system and the assessment of its adequacy. - Periodic conformance audits of the operations of the system.	Finding & eliminating sources of quality problems through tools & equipment so that customer's requirements are continually met.

Quality Assurance (QA)

Process

Proactive

Staff function

Prevent defects

Defining process

Quality Control (QC)

Product- Service

Reactive

Individual function

Find defects

Testing



QA and QC responsibilities

Quality Assurance (QA)

Everyone on the team involved in developing the process is responsible for **quality assurance**

- Verify the accuracy of the data in order to provide confidence in the results.

Quality Control (QC)

Quality control is usually the responsibility of a **specific team** that tests the product for defects

- QC personnel **perform** the testing and compare the results to the specification requirements.
- Responsible for controlling the quality of the work performed.





Thank You