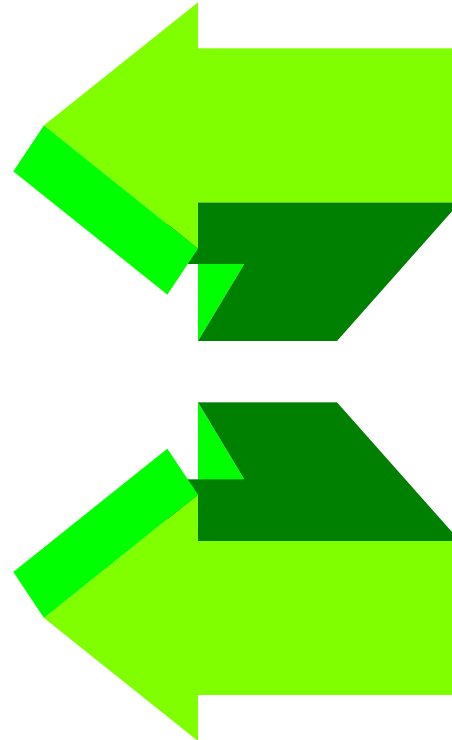


Service Quality

- Convenience
- Reliability
- Responsiveness
- Time
- Assurance
- Courtesy
- Tangibles



Examples of Service Quality

Dimension	Examples
1. Convenience	Was the service center conveniently located?
2. Reliability	Was the problem fixed?
3. Responsiveness	Were customer service personnel willing and able to answer questions?
4. Time	How long did the customer wait?
5. Assurance	Did the customer service personnel seem knowledgeable about the repair?
6. Courtesy	Were customer service personnel and the cashier friendly and courteous?
7. Tangibles	Were the facilities clean, personnel neat?

Challenges with Service Quality

- Customer expectations often change
- Different customers have different expectations
- Each customer contact is a “moment of truth”
- Customer participation can affect perception of quality
- Fail-safing must be designed into the system

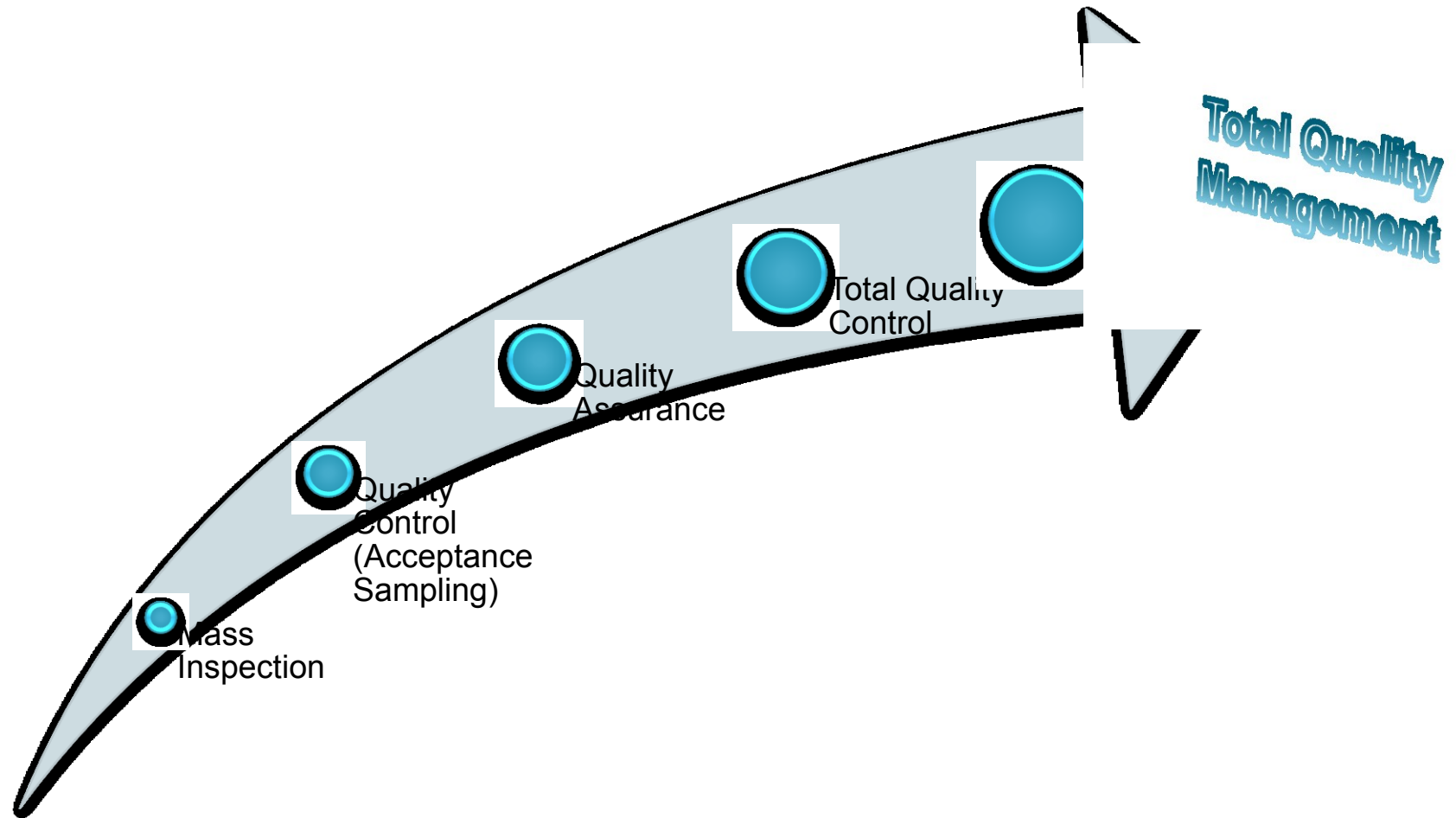
Examples of Quality Dimensions

Dimension	(Product) Automobile	(Service) Auto Repair
1. Performance	Everything works, fit & finish Ride, handling, grade of materials used	All work done, at agreed price Friendliness, courtesy, Competency, quickness
2. Aesthetics	Interior design, soft touch	Clean work/waiting area
3. Special features	Gauge/control placement Cellular phone, CD player	Location, call when ready Computer diagnostics

Examples of Quality Dimensions (Cont'd)

<u>Dimension</u>	<u>(Product)</u> <u>Automobile</u>	<u>(Service)</u> <u>Auto Repair</u>
5. Reliability	Infrequency of breakdowns	Work done correctly, ready when promised
6. Durability	Useful life in miles, resistance to rust & corrosion	Work holds up over time
7. Perceived quality	Top-rated car	Award-winning service department
8. Serviceability	Handling of complaints and/or requests for information	Handling of complaints

Evolution of Quality Management



Evolution of Quality Management

- Mass Inspection
 - Inspecting
 - Salvaging
 - Sorting
 - Grading
 - Rectifying
 - Rejecting
- Quality Control
 - Quality manuals
 - Product testing using SQC
 - Basic quality planning
- Quality Assurance
 - Emphasis on prevention
 - Proactive approach using SPC
 - Advance quality planning
- Total Quality Control
 - All aspects of quality of inputs
 - Testing equipments



Quality Management Evolution

Proactive Approach
Prevention

Stop defects at source.

Zero defects

Total Quality Management

4

Quality Assurance

3

Reactive Approach
Detection

Finding & Fixing mistakes

Quality Control

2

Inspection

1

Incorporates QC/QA activities into a company-wide system aimed at satisfying the customer.

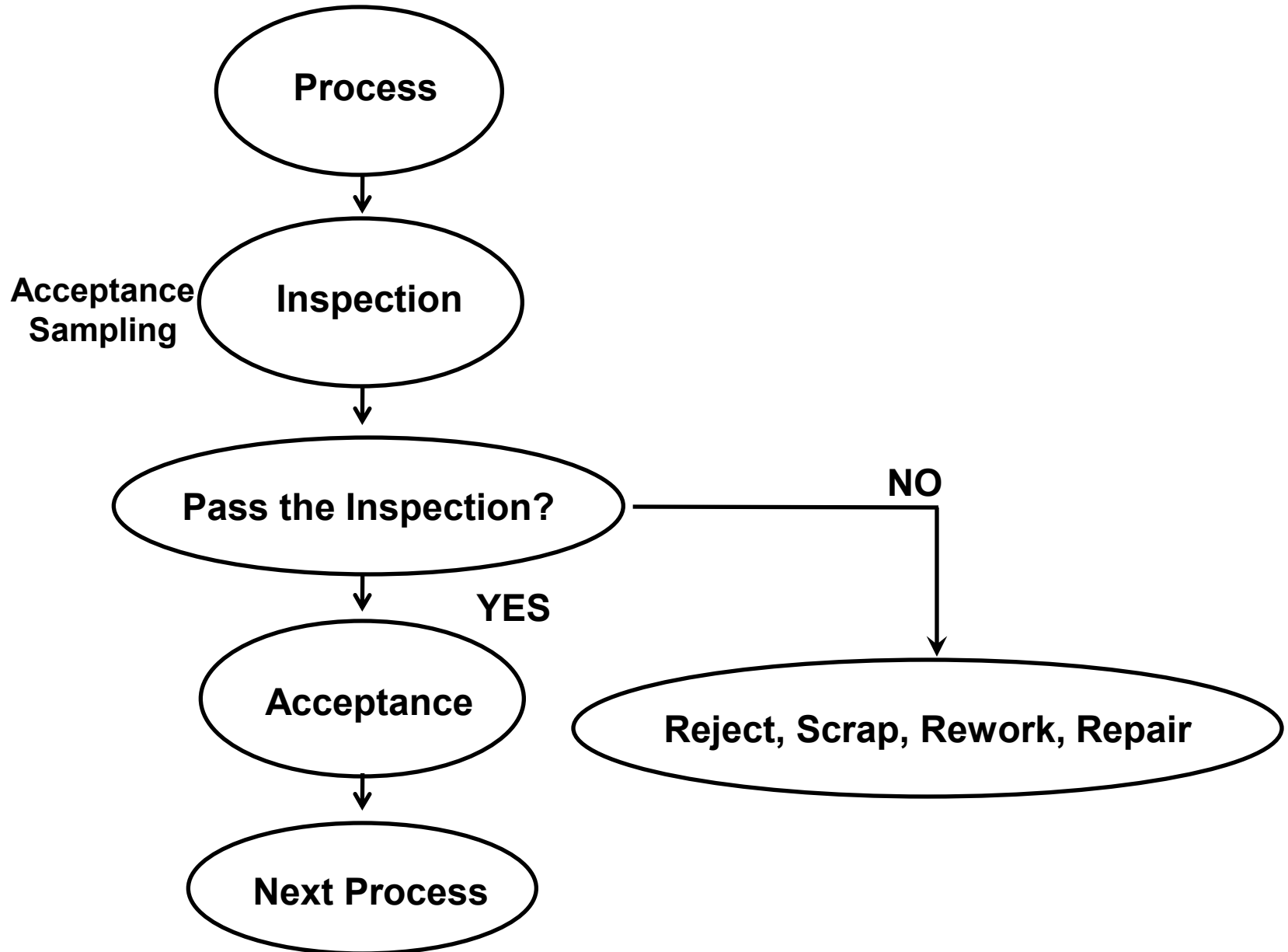
(involves all organizational functions)

Planned and systematic actions to insure that products or services conform to company requirements

Operational techniques to make inspection more efficient & to reduce the costs of quality. (example: SPC)

Inspect products

The Acceptance Inspection Model



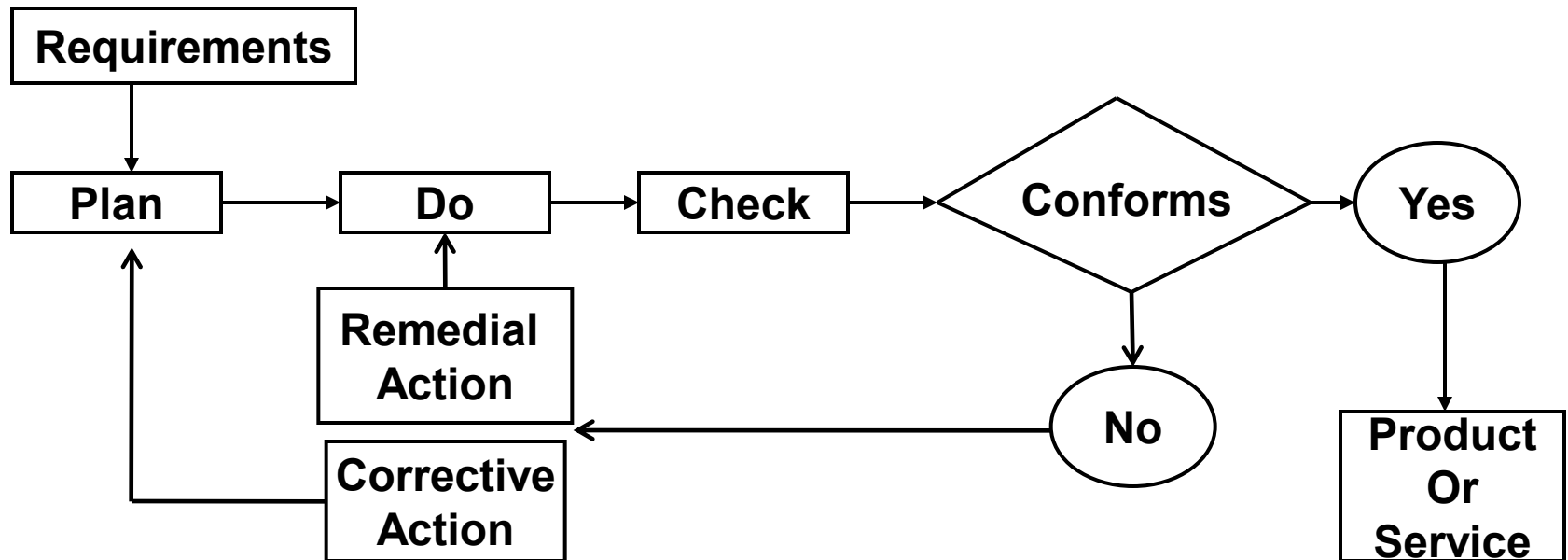
Quality Control

- **Quality Control (QC)** - “the operational techniques and activities that are used to fulfil requirements for quality”.
- The purpose of quality control is to **uncover defects** and have them corrected so that defect-free products will be produced.
- Quality control is limited to looking at *products* .
- Quality control is testing the final product against product quality standards.
- Quality control is operational techniques that are used to fulfill requirements for product quality.

Quality Control

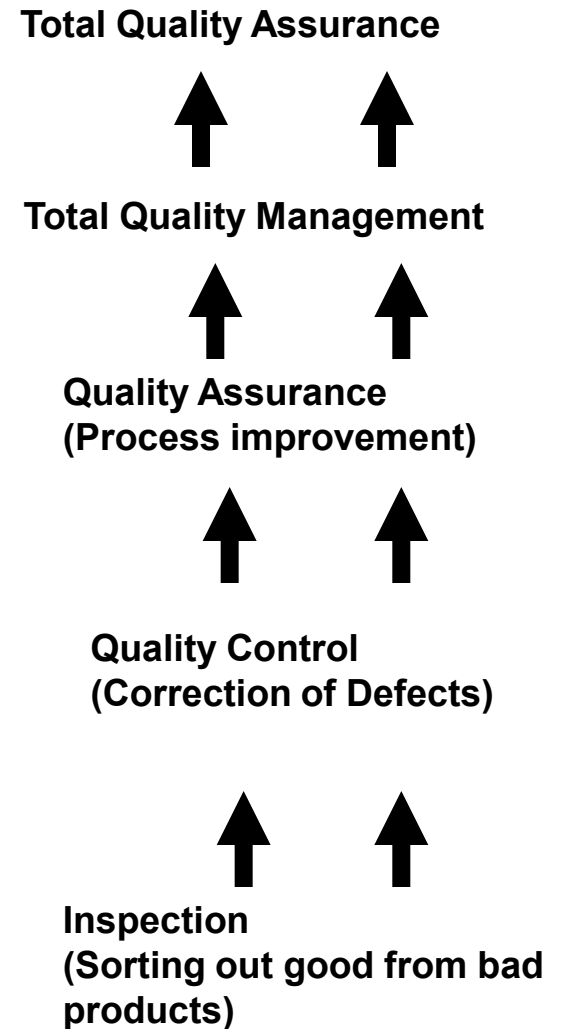
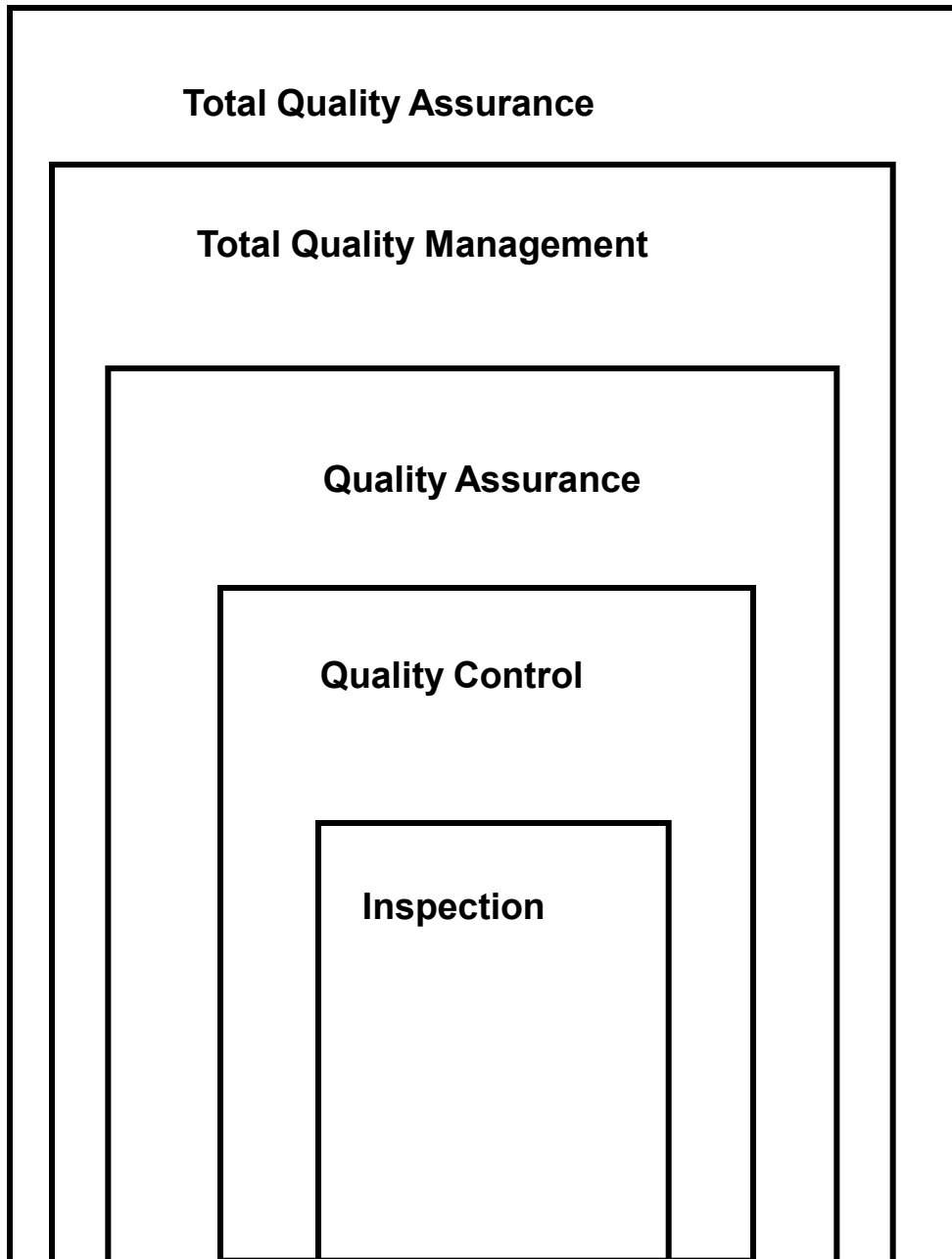
It is that part of Quality Management focused on fulfilling requirements of the Customers for the quality products.

A Simplest Form of Quality Control is:-



Quality Assurance

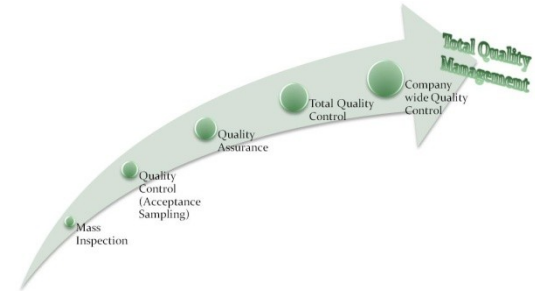
- **Quality Assurance (QA)** - “all planned and systemic activities necessary to provide adequate confidence that a product or service will satisfy given requirements for quality”.
- Quality assurance is oriented toward **preventing defects**.
- It is defined by those activities that modify the development processes to prevent the introduction of defects.
- Quality assurance is more concerned with the *processes* that produce the final product, and making sure that quality is part of each phase.
- QA is about maturing the process towards minimum defect.
- It is about balancing methodology, leadership, and technology.
- It is about taking into account human factors as well as technological ones.



The Phases of Development of Quality Assurance Systems

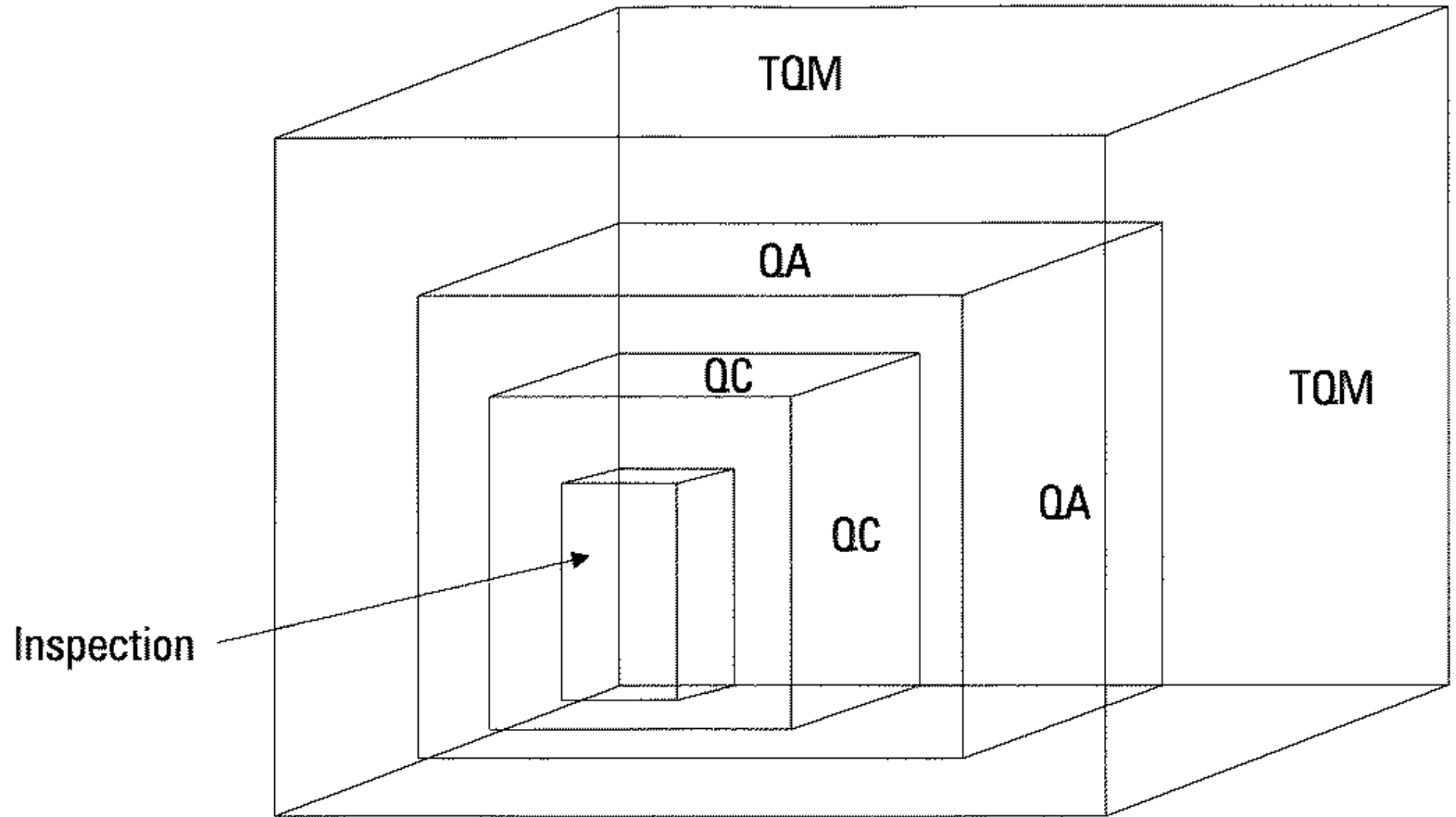
Evolution of Quality Management

- Company wide Quality Control
 - Measured in all functions connected with production such as
 - R&D
 - Design
 - Engineering
 - Purchasing,
 - Operations etc



- Total Quality Management
 - Measured in all aspects of business,
 - Top management commitment
 - Continuous improvement
 - Involvement & participation of employees

Evolution of Quality Management



TQM Evolution

Evolution

