AWARENESS PROGRAMME ON INTEGRATED MANAGEMENT SYSTEM

BY G RAMESH – MR & MA
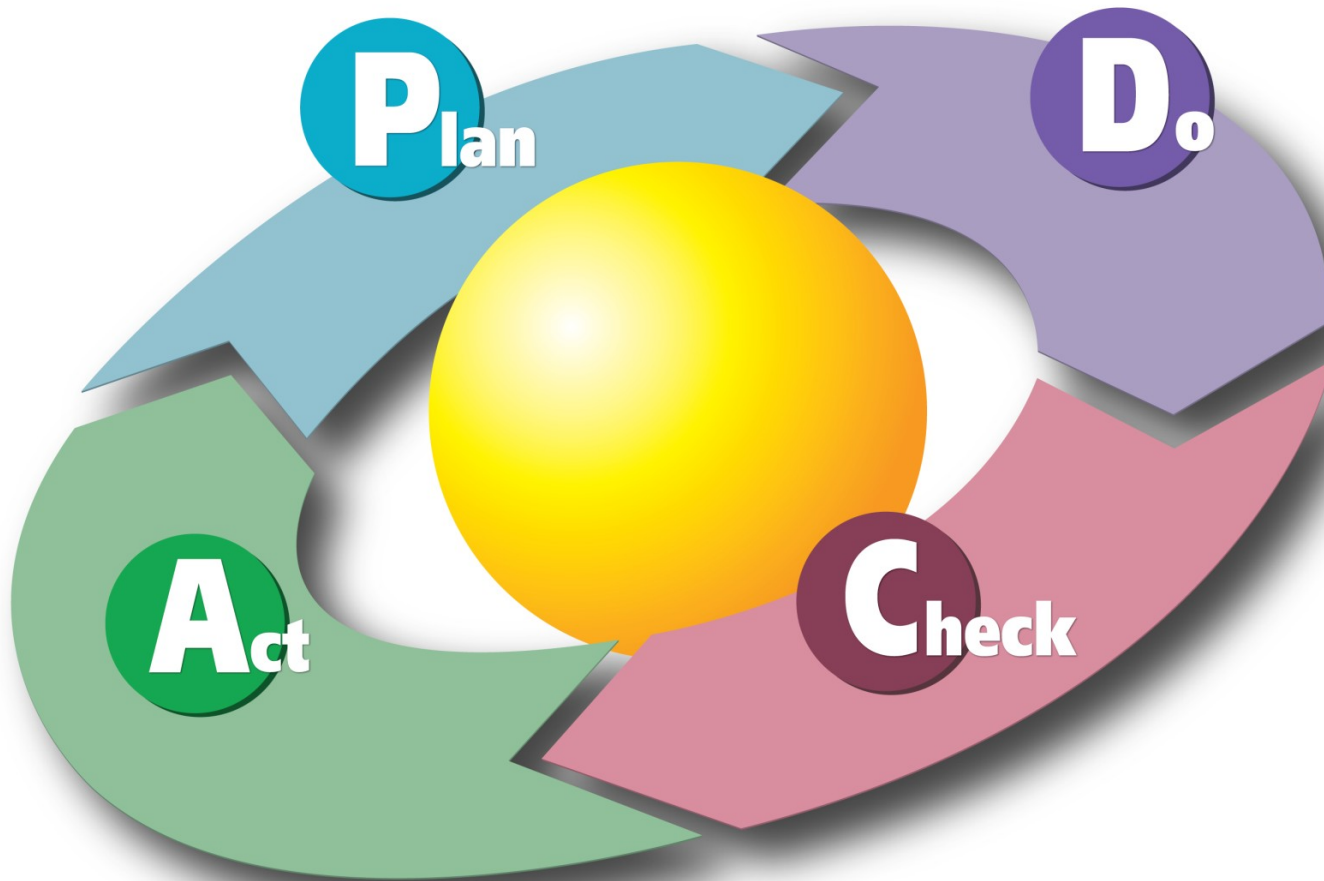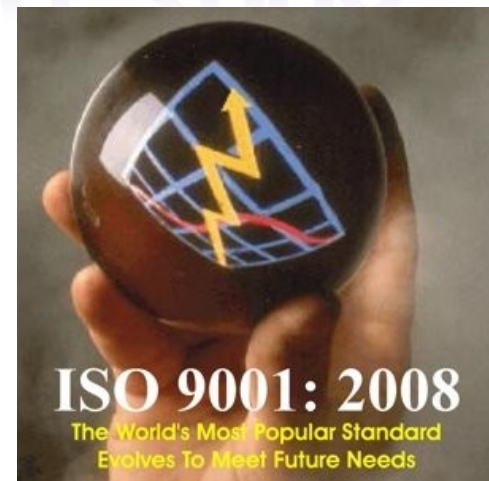
WHAT IS ISO?

- ISO (International Organization for Standardization) is a worldwide federation of national standards bodies, at present comprising of 140 members, one in each country. The object of ISO is to promote the development of standardization and related activities in the world with a developing co operation in the spheres of intellectual, scientific, technological and economic activity. The results of ISO technical work are published as International Standards.
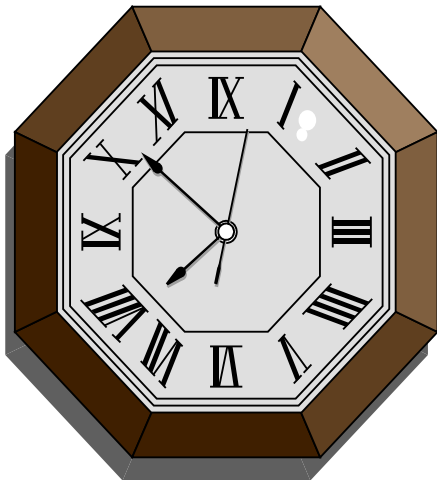
WHAT IS QUALITY???

"degree to which a set of inherent characteristics fulfils requirements"

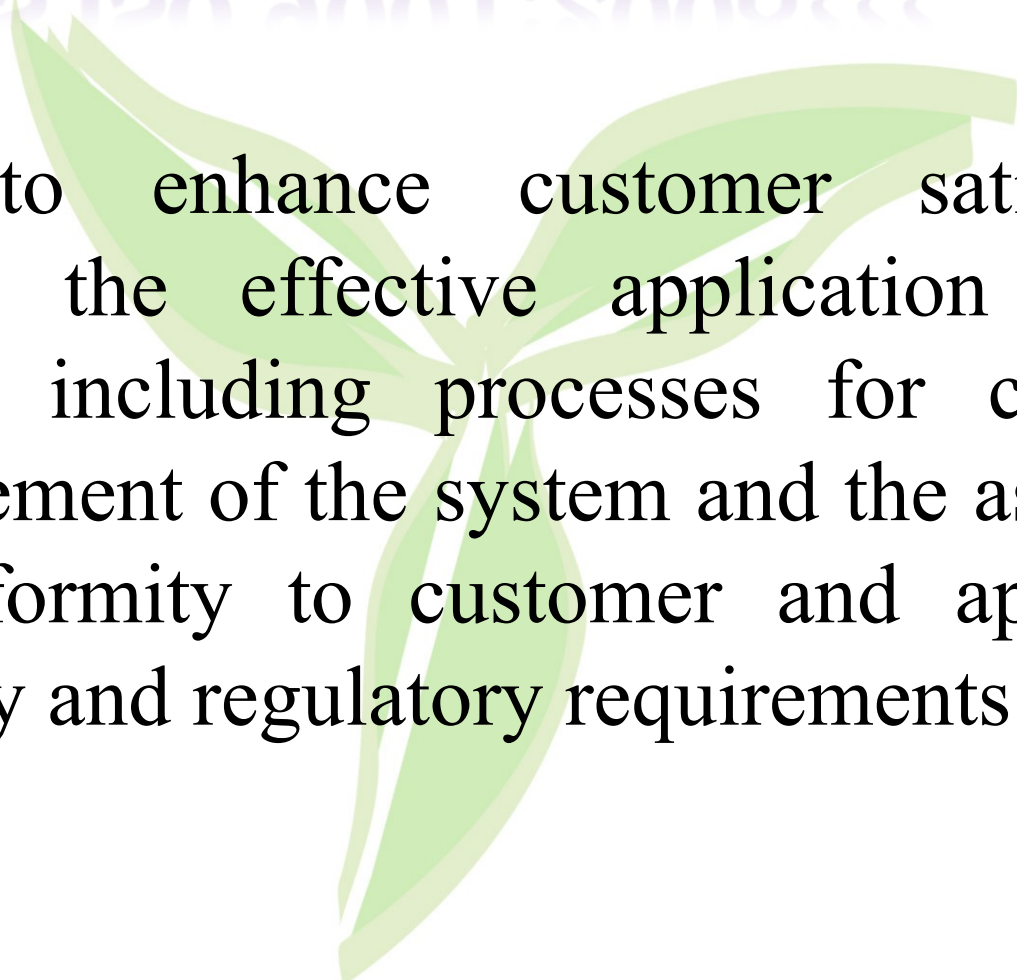Which is of a better quality?

(or)

WHAT IS ISO 9001:2008???

- ISO 9001:2008 is an International standard specifies the requirements for a Quality Management Systems (QMS) where an organization

a) Needs to demonstrate its ability to consistently provide product that meets customer and applicable statutory and regulatory requirements, and

b) Aims to enhance customer satisfaction through the effective application of the system, including processes for continual improvement of the system and the assurance of conformity to customer and applicable statutory and regulatory requirements.

QMS PRINCIPLES...

Any organization can benefit from implementing QMS as its requirements are underpinned by eight management principles:

1- Customer-Focused Organisation

2- Leadership

3- Involvement of People

4- Process Approach

5- System Approach

6- Continual Improvement

7- Factual Approach to Decision Making

8- Mutually Beneficial Supplier Relationship

PRINCIPLE 1-CUSTOMER FOCUS

Organisations depend on customers.

Determine customer needs & expectations

↓

Requirements

↓

Customer satisfaction

Customer

PRINCIPLE 2 - LEADERSHIP

Leaders establish unity of purpose, direction and internal environment in which people become fully involved.

PRINCIPLE 3 - INVOLVEMENT OF PEOPLE

- People are the essence of the organisation.
- Their full involvement enables, using their abilities to the benefit of the organisation.

PRINCIPLE 4 - PROCESS APPROACH

A desired result is more efficiently achieved when resources and activities are managed as a process.

PRINCIPLE 5 - SYSTEM APPROACH

Identifying, understanding and managing a system of interrelated processes for a given objective contributes to effectiveness and efficiency.

PRINCIPLE 6 - CONTINUAL IMPROVEMENT

Continual improvement is a permanent objective of the organisation

PRINCIPLE 7 - FACTUAL APPROACH TO DECISION MAKING

Effective decisions are based on the logical and intuitive analysis of data and information.
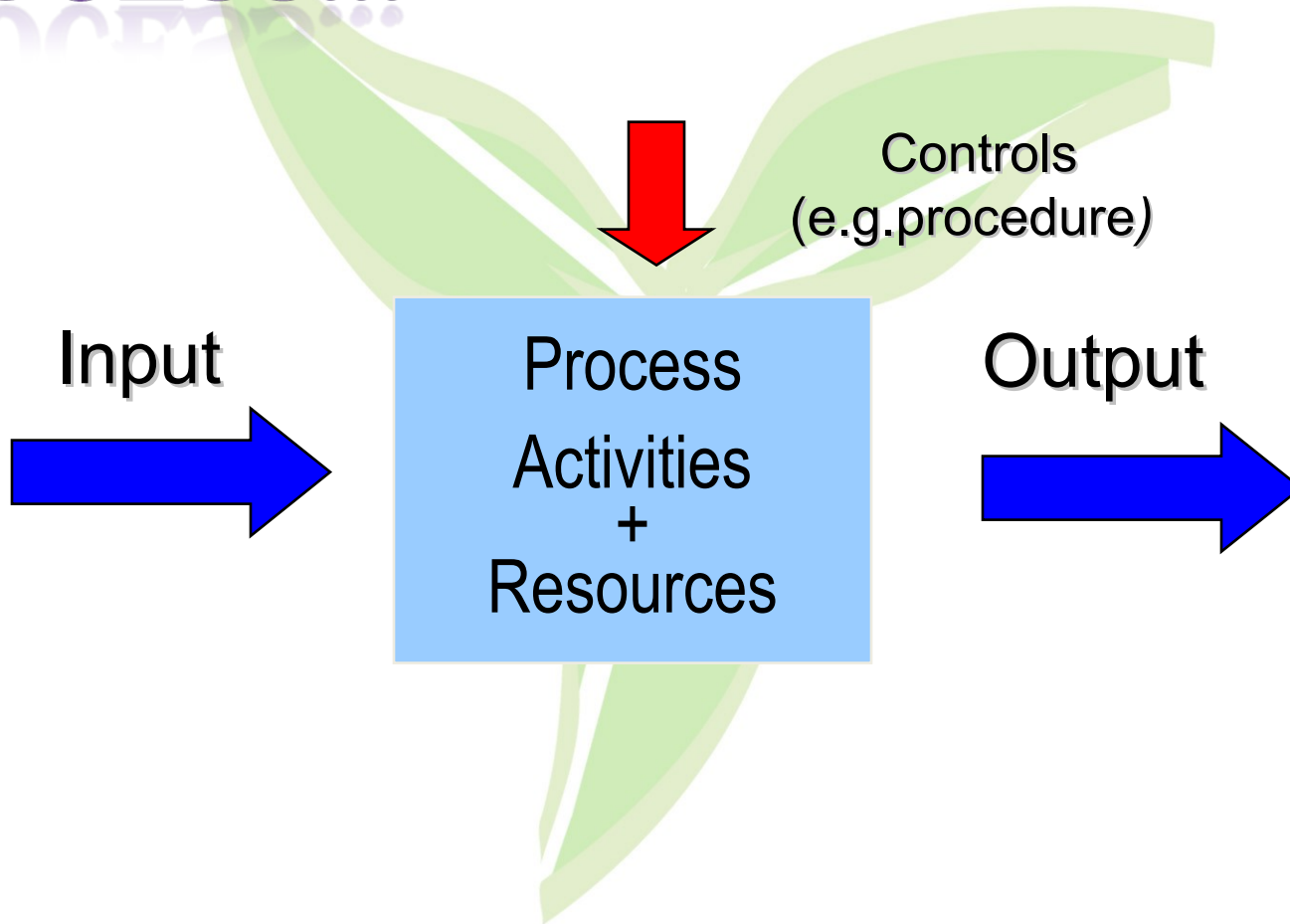
PRINCIPLE 8 - MUTUALLY BENEFICIAL SUPPLIER RELATIONSHIP

Mutually beneficial relationship between organisation and its suppliers enhance the ability of both organisations to create value.

PROCESS APPROACH...

- Process approach to management is encouraged

- Process model as a conceptual presentation of QMS requirements specified

PDCA FOR QMS...

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CUSTOMERS

Requirements

Continual Improvement of the Quality Management System

Management responsibility

Resource management

Measurement, analysis, improvement

Input

Product realisation

Product

Output

Satisfaction

CUSTOMERS
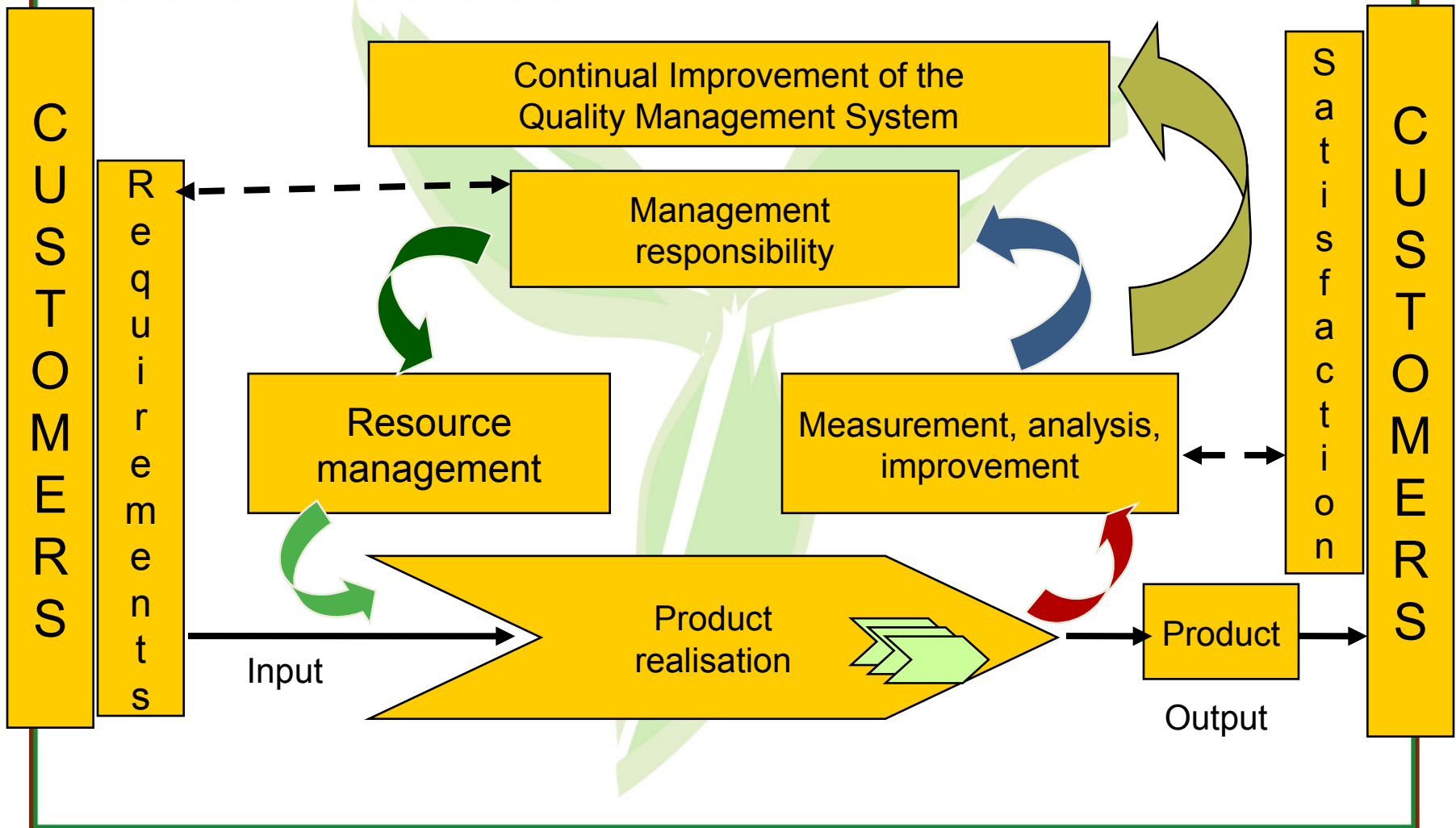
FIVE MAIN ELEMENTS OF ISO 9001:2008 ...

Clause 4 - Quality management systems

➢ establishing and monitoring the process whereby product and service quality are maintained.

Clause 5 - Management responsibility

➢ how the management establish, maintain, monitor and communicate their commitment in line with the standards.

Clause 6 - Resource management

➢ how the business provides the resources - both physical and human - to enable the standards to be met and maintained.

FIVE MAIN ELEMENTS OF ISO 9001:2008 CONTD...

Clause 7 -   Product realization

➢ how businesses, establish and monitor quality from concept to final product or service delivery.

Clause 8 -   Measurement, analysis and improvement.

➢ how businesses, use data to monitor their quality of product / service and how this data is used to improve quality provision.

QUALITY POLICY...

Responsibility – Top Management

a) appropriate to the purpose of the organisation

b) commitment to comply with requirements & continually improve the effectiveness of the QMS

c) framework for establishing & reviewing quality objectives

d) communicated and understood within the organisation

e) is reviewed for continuing suitability

QUALITY OBJECTIVES...

- establish quality objectives at relevant functions and levels
- objectives must be SMART
- consistent with the quality policy
- include those needed to meet requirements for product
- documented
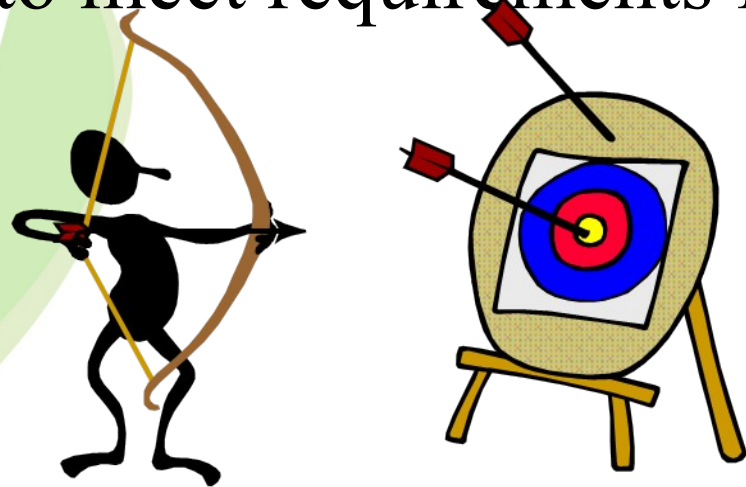
QUALITY OBJECTIVES

- Specific / Simple

- Measurable / Monitor-able

- Achievable / Acceptable

- Realistic / Reasonable

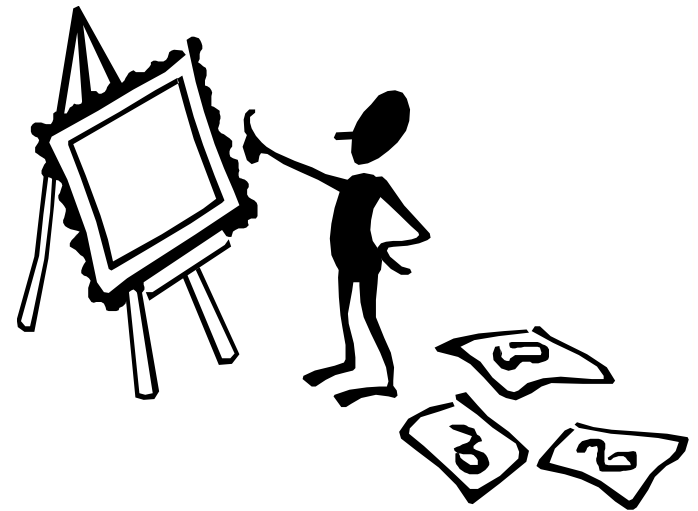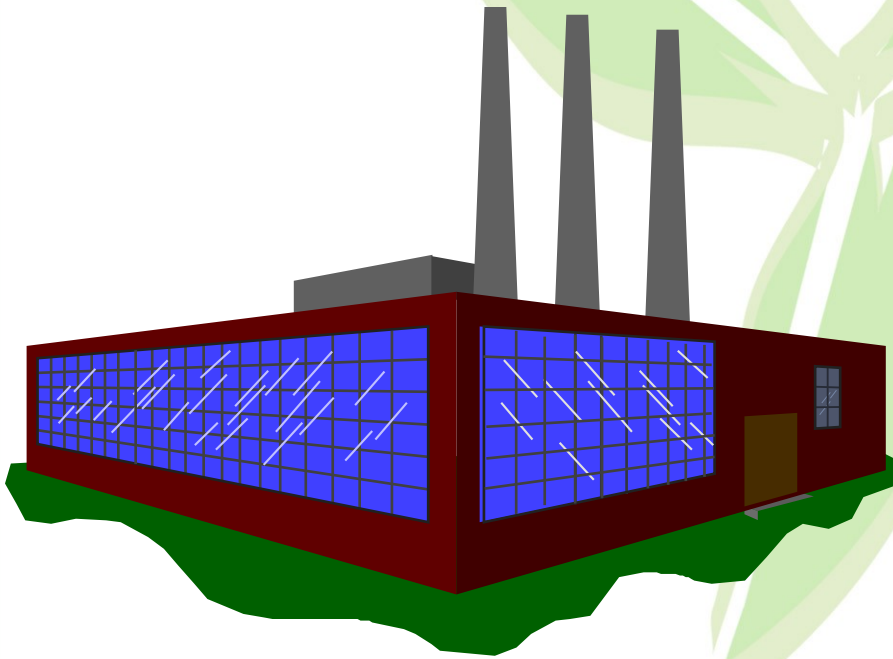- Time bound / Target

MANDATORY PROCEDURES...

Mandatory procedures for QMS

1. Control of Documents – 4.2.3

2. Control of Records – 4.2.4

3. Internal Audit – 8.2.2

4. Control of nonconforming products – 8.3

5. Corrective Action – 8.5.2

6. Preventive Action – 8.5.3

POINTS TO PONDER...

Quality system is for the organisation, and not organisation for the system.

POINTS TO PONDER...

Unnecessary changes should not be imposed.

Always consider:

- **company culture;**
- **operating philosophy;**
- **nature of business;**
- **market environment**

WHAT ARE THE BENEFITS OF QMS REGISTRATION???

- Customer satisfaction

- Reduced operating costs

- Improved stakeholder relationships

- Legal compliance

- Improved risk management

- Proven business credentials

- Ability to win more business

- Increased competitiveness

ENVIRONMENTAL MANAGEMENT SYSTEM ISO 14001:2004

Environmental Management
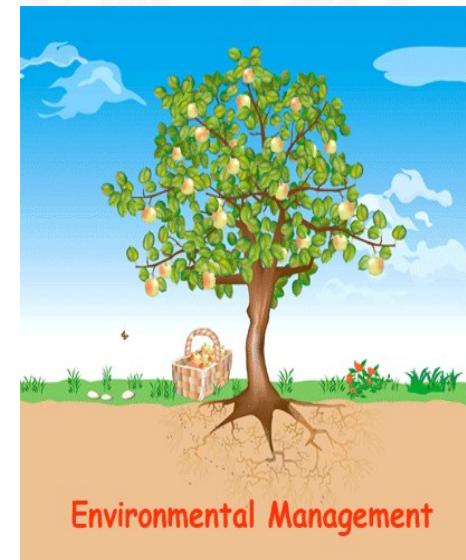
WHAT IS AN ENVIRONMENT???

Surroundings in which and organization operates, including air, water, land, natural resources, flora, fauna, humans, and their interrelation.

Note: Surroundings in this context extend from within an organization to the global system

WHAT IS ISO 14001:2004...

ISO 14001:2004 is an international standard specifies requirements for an environmental management system to enable an organization to develop and implement a policy and objectives which take into account legal and other requirements to which the organization subscribes, and information about significant environmental aspects. It applies to those environmental aspects that the organization identifies as those which it can control and those which it can influence.
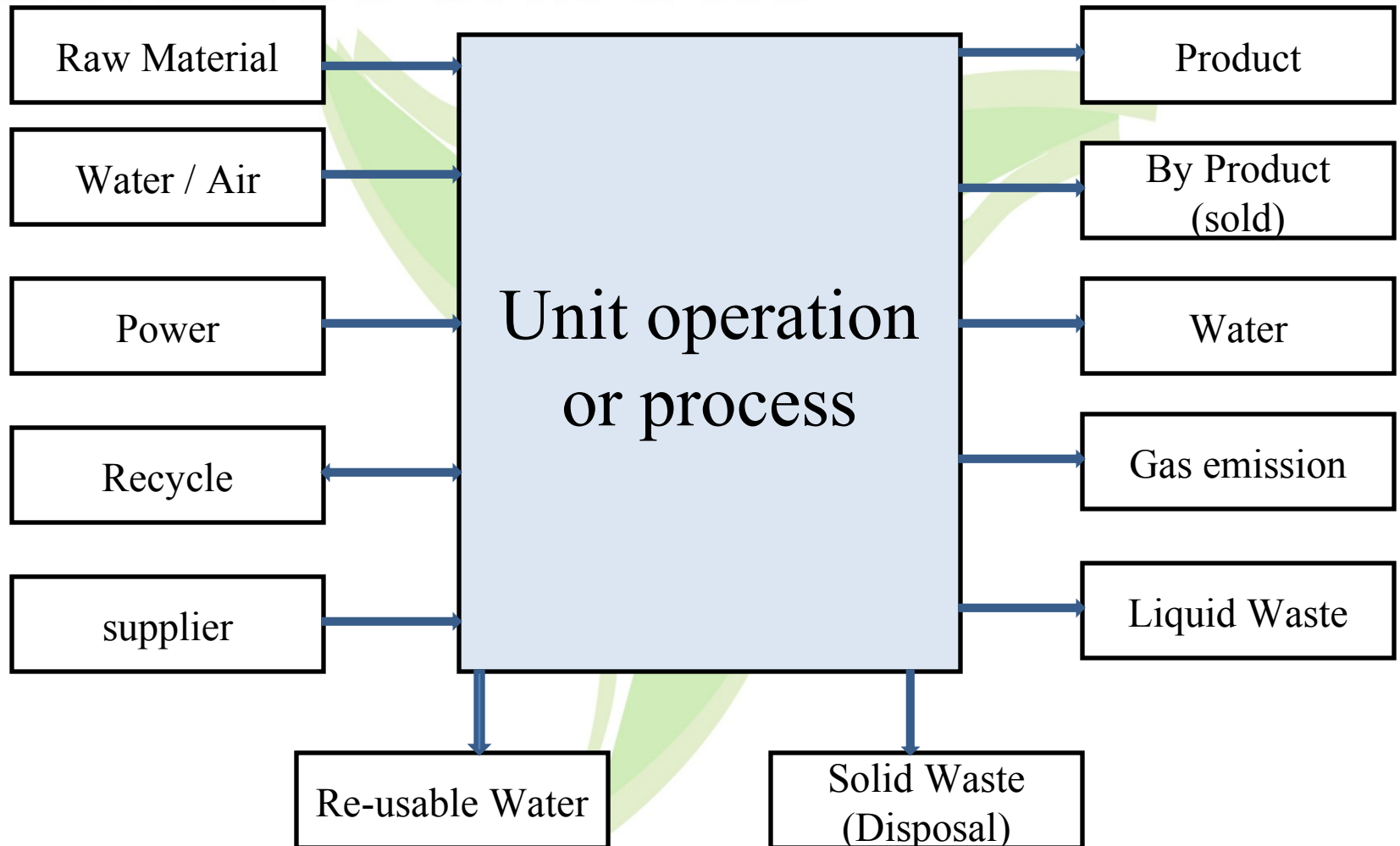
EMS PRINCIPLES...

1. It must result in better environmental management.

2. It must be applicable in all nations.

3. It should promote the broad interests of the public and the users of the standards.

4. It should be cost effective, non-prescriptive, and flexible, to allow them to meet the differing needs of organizations of any size worldwide.

EMS PRINCIPLES

CONTD...

5. As a part of their flexibility, it should be suitable for internal or external verification.

6. It should be scientifically based.

7. And above all, they should be practical, useful and useable.

PDCA FOR EMS...

PLAN
Survey environmental impact and issues Assess environmental activity plans

DO
Implement environmental activities Build implementation and operation systems Educate employees

ISO14001

ACT
Management review of operations

CHECK
Internal audits Corrective and preventionmeasures

ENVIRONMENTAL POLICY…

Responsibility – Top Management

a) Appropriate to nature, scale & environmental impacts

b) Commitment to continual improvement and prevention of pollution

c) Commitment to comply with legal and other requirements

d) Framework for setting and reviewing environmental objective and targets

ENVIRONMENTAL POLICY CONTD...

e) documented, implemented and maintained.

f) Communicated to all persons working for or on behalf of the organization

g) Available to the public
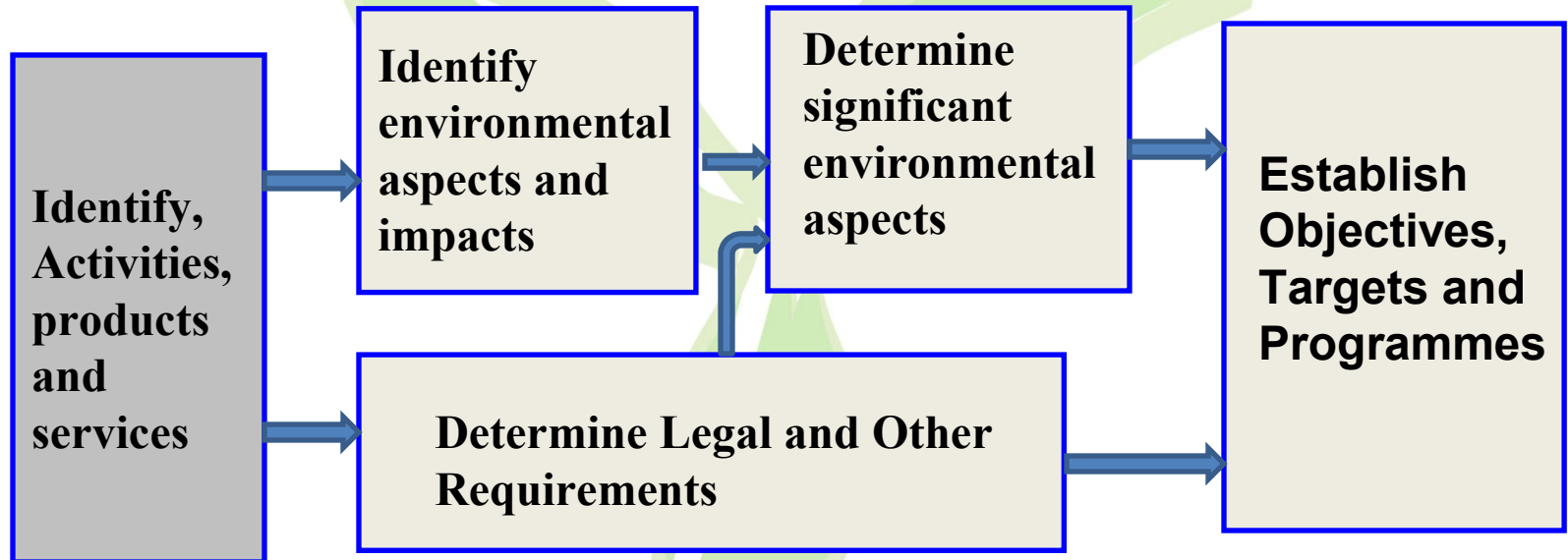
OBJECTIVES, TARGETS...

Objectives should be

- SMART

- Consistent with the environmental policy

- Commitments to prevention of pollution

- Compliance with legal and other requirements

- Continual improvement
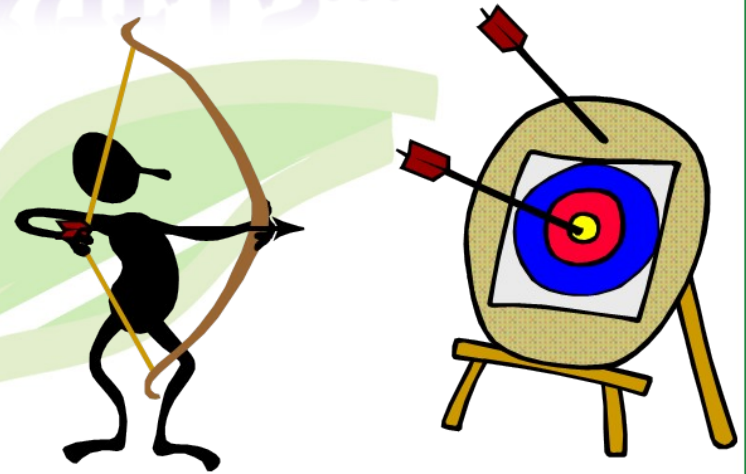
AND PROGRAMMES...

- Develop and use a plan to achieve objectives and targets

- Assign responsibility for achieving objectives and targets at relevant functions and levels

- Describe what is to be done, what will be measured, and what the schedule will be

- Time frame by which they are to be achieved.

PLANNING...

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| Identify, Activities, products and services | → | Identify environmental aspects and impacts | → | Determine significant environmental aspects | → | Establish Objectives, Targets and Programmes |

Determine Legal and Other Requirements

ENVIRONMENTAL ASPECTS...

- Identify environmental aspects of activities products and services that you "*can control and ...can influence*"
  - Examples include air emissions, water discharges, soil contamination, by using of raw materials, energy, natural resources, etc.,
- To determine those which have or can have significant impacts on the environment
- Environmental aspect register shall be prepared to identify the significant aspect in the activity involved.
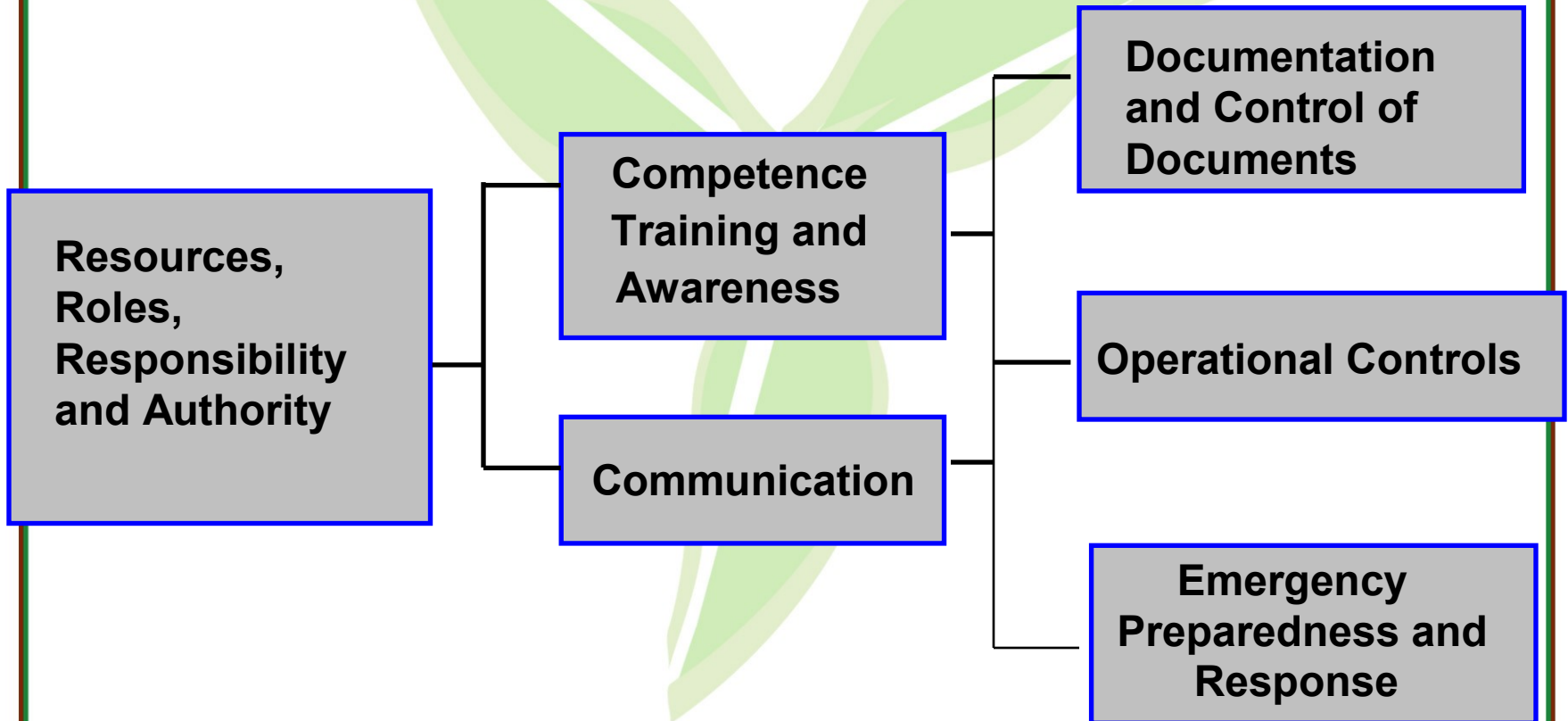
LEGAL AND OTHER REQUIREMENTS...

- Identify legal requirements according to the nature of the project and its location e.g., Pollution board clearance, IBR clearance, etc.,

- Identify other requirements to which we "subscribe" e.g., Executive Orders, agency/bureau policies or voluntary practices

IMPLEMENTATION & CONTROL...

Organization & Accountability

Capabilities & Communications

Controls

Resources, Roles, Responsibility and Authority

Competence Training and Awareness

Communication

Documentation and Control of Documents

Operational Controls

Emergency Preparedness and Response

RESOURCES, ROLES, RESPONSIBILITY AND AUTHORITY...

- Management provides resources to implement, maintain and improve the system
- Roles and responsibilities are defined, documented, communicated

EMERGENCY PREPAREDNESS AND RESPONSE ...

Develop and use procedures to

- ❖ Identify potential for accidents and emergencies and associated environmental impact and what response will be

- ❖ Prevent, respond to and mitigate associated environmental impacts

- ❖ Review and revise procedures after emergency or accident

- ❖ Periodically test such procedures where practicable (by mock drill)

NONCONFORMITY, CORRECTIVE AND PREVENTIVE ACTION...

Develop and use procedures defining Responsibility and Authority to address problems

- ❖ Who is responsible
- ❖ Mitigate impacts
- ❖ Identify cause
- ❖ Develop corrective action and implement it
- ❖ Modify procedures if necessary to prevent recurrence
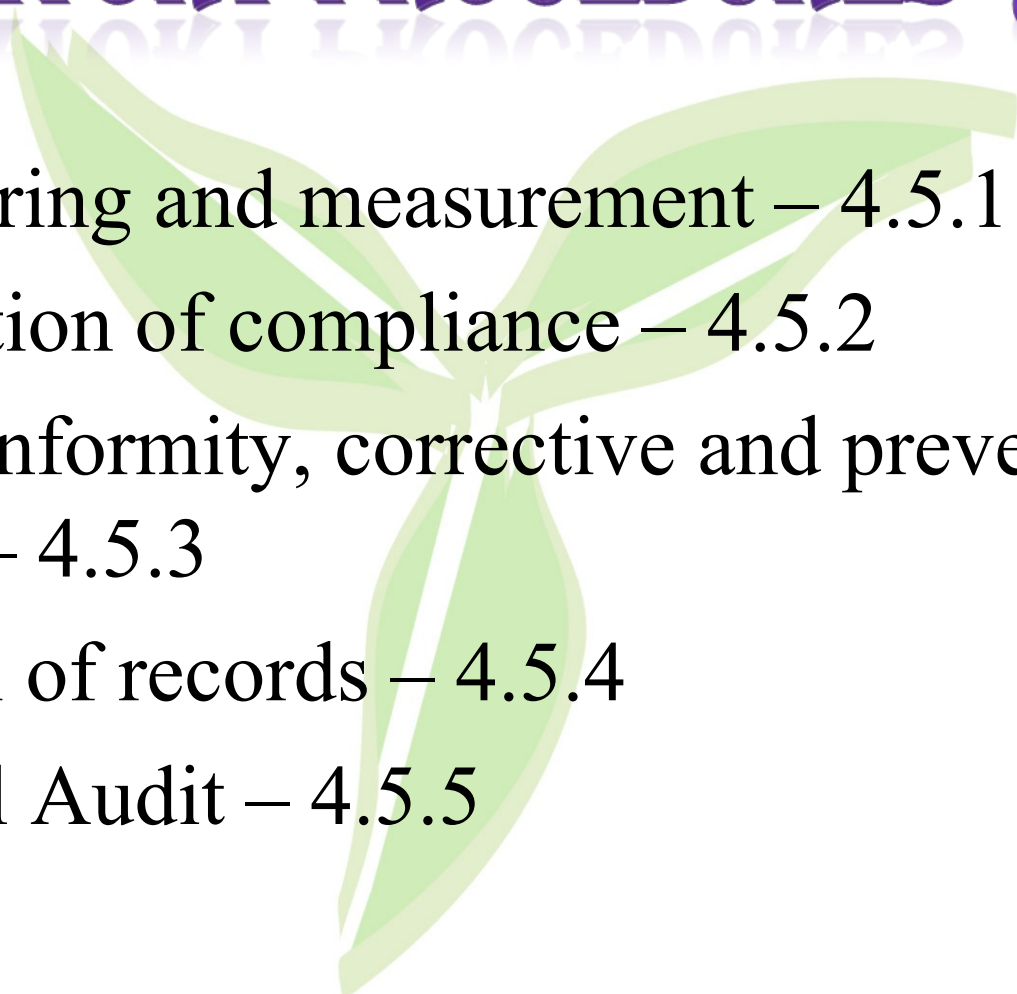- ❖ Review effectiveness of modified procedures

MANDATORY PROCEDURES…

Mandatory procedures for EMS

1. Environmental Aspects – 4.3.1
2. Legal and other requirements – 4.3.2
3. Competence, training & awareness – 4.4.2
4. Communication – 4.4.3
5. Control of documents – 4.4.5
6. Operational control – 4.4.6
7. Emergency preparedness & response – 4.4.7

MANDATORY PROCEDURES CONTD...

8. Monitoring and measurement – 4.5.1

9. Evaluation of compliance – 4.5.2

10. Non conformity, corrective and preventive action – 4.5.3

11. Control of records – 4.5.4

12. Internal Audit – 4.5.5

POINTS TO PONDER...

❖ The EMS and related measurement tools are just that, tools. Alone, they will not guarantee success. The organization must **use** the tools, not just **have** them.

❖ An effective EMS is "alive"; constantly measuring performance, making adjustments, and looking for opportunities for continual improvement.

❖ An EMS cycle gets repeated to ensure it is meeting the policy goals, working properly and updated as necessary.

WHAT IS OH&S???

- **Occupational Health & Safety**

    Conditions and factories that affect the well being of employees, temporary workers, contract personnel, visitors and any other person in the work place.

WHAT IS IS18001:2007???

IS 18001:2007 is the standard which prescribes the requirements for an occupational health and safety (OH&S) management system, to enable an organization to formulate a policy and objectives, taking into account legislative requirements and information about significant hazards and risks, which the organization can control and over which it can be expected to have an influence, to protect its employees and others, whose health and safety may be affected by the activities of the organization.

PDCA FOR OHSMS...

OHS Management System Model

OH&S POLICY...

Responsibility – Top management

a) Appropriate to the nature, scale and the hazards and risks of its activities and facilities

b) Commitment to continual improvement

c) Commitment to comply with applicable OH&S and other requirements.

d) Implemented, maintained and communicated to all employees

OH&S POLICY

e) Provide a frame work for establishing, maintaining and periodically reviewing of OH&S objectives and targets

f) Be reviewed periodically to ensure that it remains relevant and appropriate to the organization.

g) Be available to the public

OBJECTIVES & TARGETS...

Objectives should be

- SMART

- Consistent with the OH&S policy

- Commitments to health and safety

- Compliance with legal and other requirements

- Continual improvement
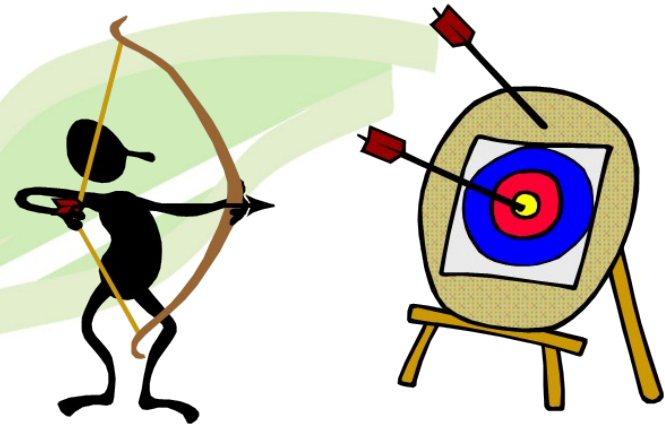
DEFINITIONS...

- Accident – Unplanned / undesired event giving rise to death, ill health, injury, damage or other losses to personnel or property

- Incident – Event that give rise to an accident or has the potential to lead to an accident.

- Safety – State in which the risk of harm to persons or damage to property is limited to tolerable level.

DEFINITIONS...

- Risk – The combination of frequency, or probability of occurrence and consequence of a specified hazardous event.

- Risk analysis– A systematic use of available information to determine how often specified events may occur and magnitude of their likely consequences.

DEFINITIONS...

- Hazard – A source or a situation with a potential to cause harm in terms of human injury or ill health, dame of property, damage to the environment or a combination of these.

- Hazard Identification – The process of recognizing a hazard in existence and defining its characteristic / impact.

SOURCES AFFECTING HEALTH & SAFETY...

- Injury – Any physical impact, which would result in blood shut, smear, scratches, burns and finally resulting in deformation, ambulation and handicap (permanent / temporary)

- Ill health – Physical can be identifiable. Mental ill health can be identified by erratic behavior, mental depression, etc.,

MITIGATING THE HAZARDS

It can be done by

- Elimination

- Substitution

- Engineering Control

- Administrative Control

- Personal Protective Equipments

HIRA...

- HIRA – Hazard identification and Risk Assessment

- Bare Risk – Analyze the risk by assuring there is no control

- Risk assessment with present control - Control the risk with the available present apparatus

- Difference between bare risk and risk assessment with present control is know as residual risk

HIRA

- HIRA – Hazard identification and Risk Assessment

- HIRA register shall be prepared to identify the unacceptable risk related to activities involved.

- If the result of HIRA is not acceptable conduct management programme or prepare operational control procedure (OCP)

POINTS TO PONDER...

- OHSMS is only for the personnel safety. Not for the safety of the equipment.
- Safety to be considered for both the organization personnel as well as the interested parties (customer, vendor, contract personnel, etc.,)

DOCUMENTATION...

Typical structure of QMS Documentation

Quality Manual

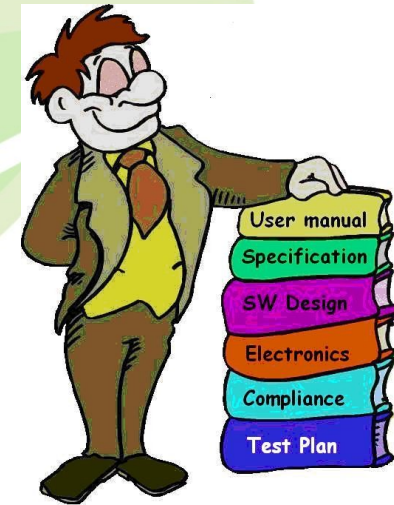**Procedures**

Work instructions

Formats and records
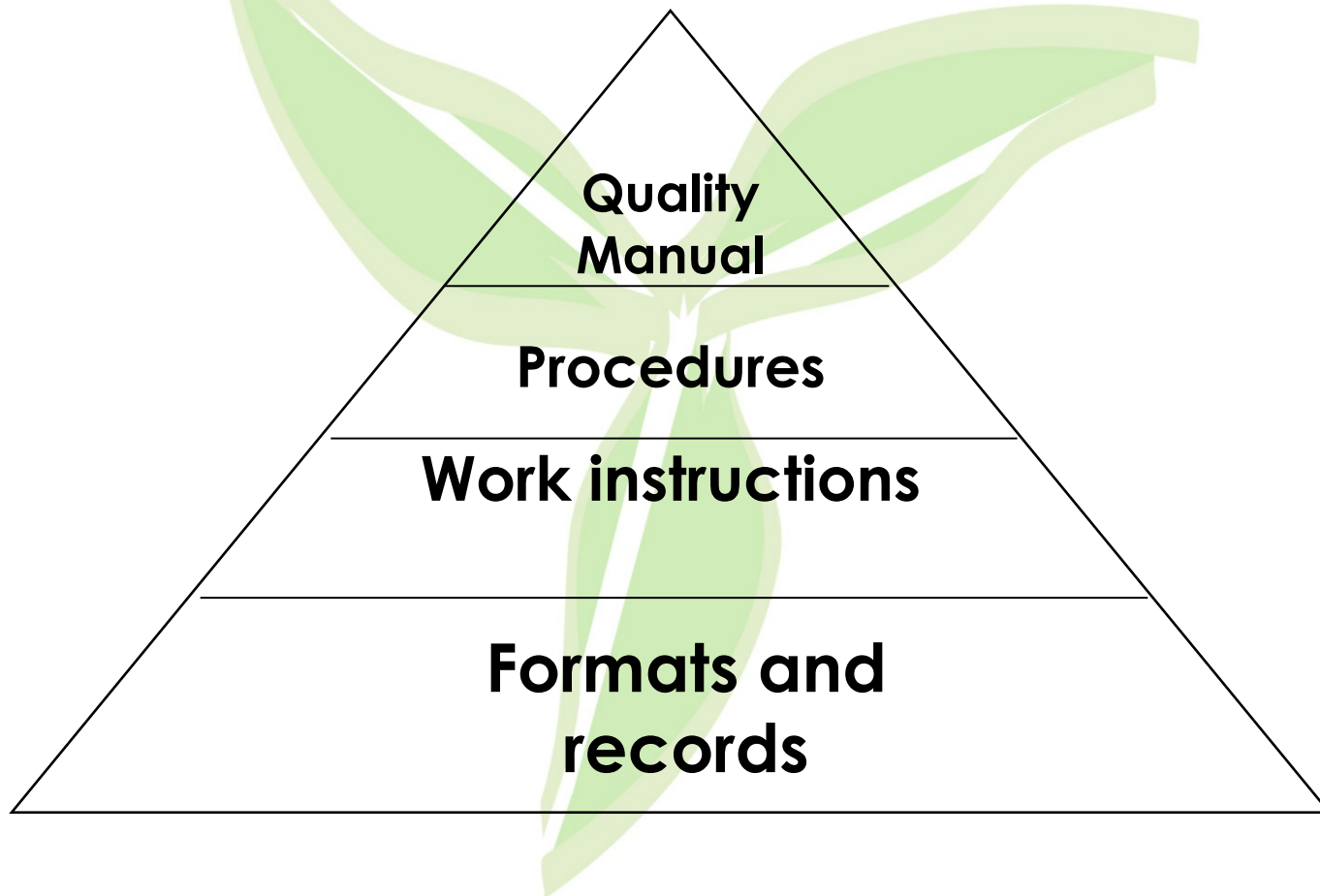
DOCUMENTATION

Documents may be established in any form or type of medium

- written texts
- flow charts
- drawings or sketches
- series of sketches, drawings or photographs
- audio tapes
- video tapes,
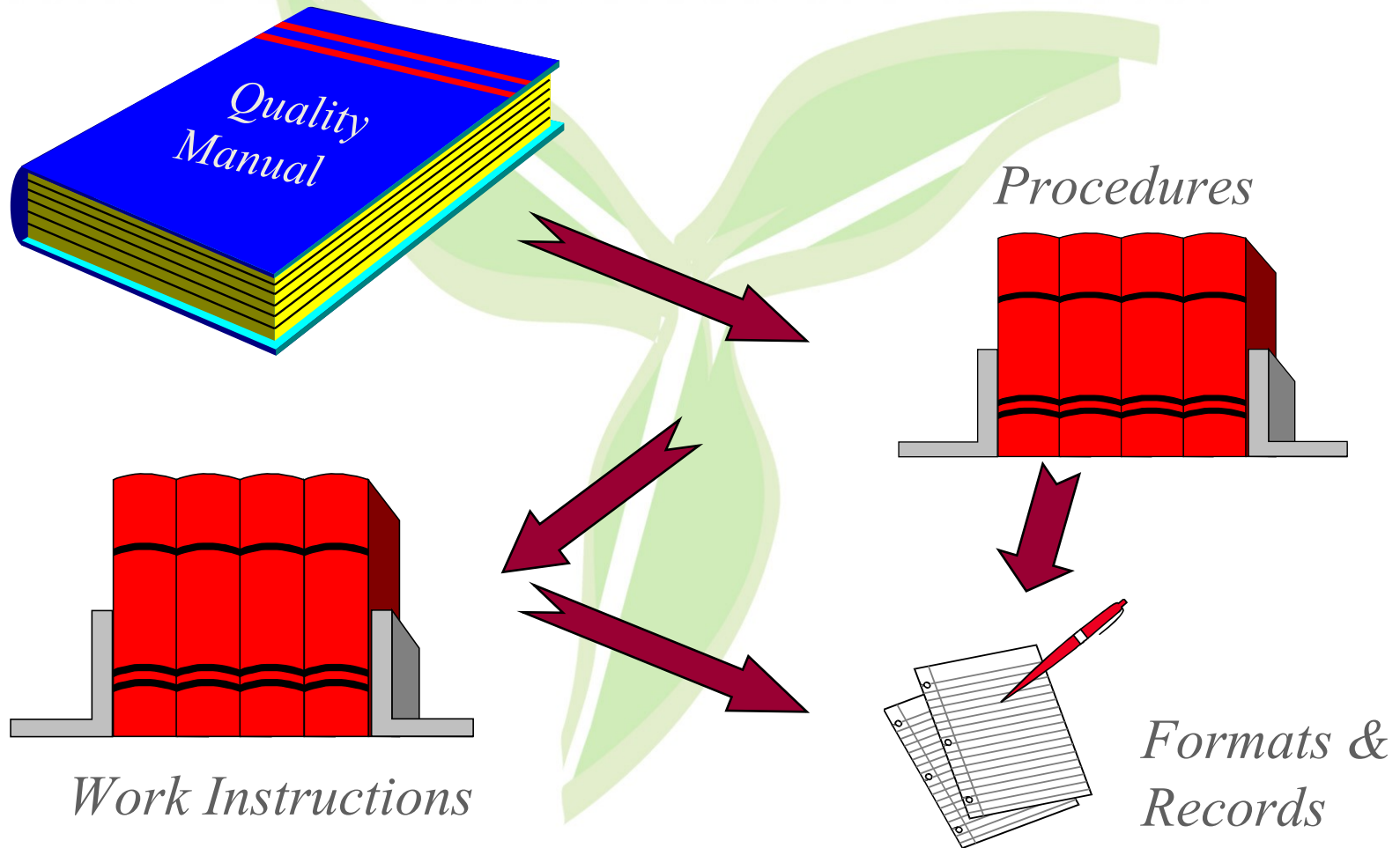- master sample, etc.
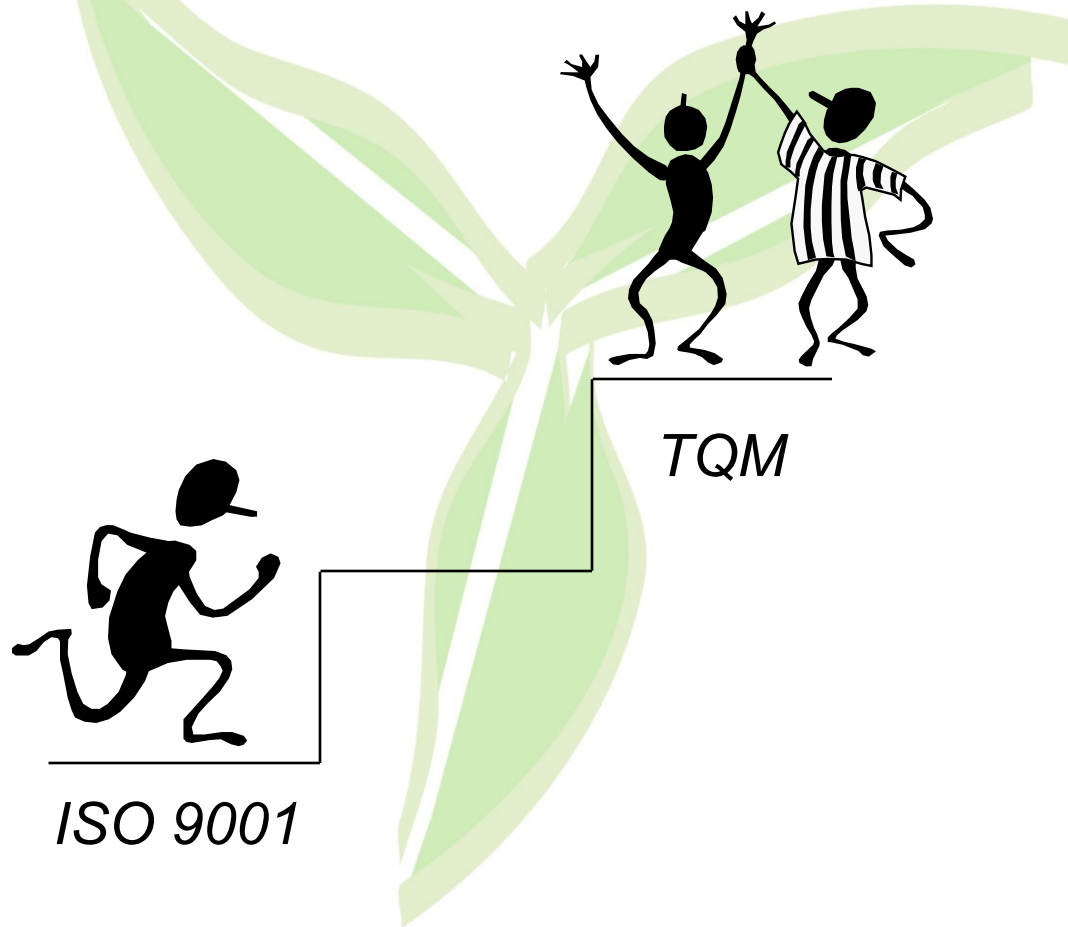
DOCUMENTATION

CONTD...

General rule:

The right document must be available at the right time in the right place.

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LINK THE DOCUMENTATION...

Quality Manual

Procedures

Work Instructions

Formats & Records

CONTINUAL IMPROVEMENT...

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TQM

ISO 9001

Thank you