

Lesson 9 - Standardization

In this activity we will learn about standards. Standards are documented agreements describing the technical specifications or criteria to be used as guidelines for products, processes, and services. Standards ensure that materials, products, processes, and services are appropriate for their purpose.

World Standards (1 of 4)

Standards are the tools we use to organize our technical world and the measures we employ to establish norms for management procedures. They support consumer expectations that products purchased will be safe, dependable, and fit-for-purpose. Standards have become so integral to the workings of our economic, social, and legal systems that they are often taken for granted and their crucial role in a modern society is not recognized.

World Standards (2 of 4)

In the late 19th century, the value of standardization in specifications, materials, and testing was accepted. Since then standardization has expanded and has become essential to modern society. It has extended far beyond its original industrial focus to include consumer safety, occupational health, environmental protection, and corporate social responsibility, all of which serve to improve the quality and comfort of our everyday life.

World Standards (3 of 4)

Standards have vastly improved global economic efficiency and provided enormous social benefits in the areas of safety; interchange ability, quality and reliability.

Simple examples of the many benefits of standardization globally include:

- ▶ **Traffic light colours** - universally red indicates stop, amber indicates caution and green indicates go.
- ▶ **Containerization** - standardized containers and their handling technology now move the majority of freight worldwide.



Universal Benefits of Standardization (1 of 2)



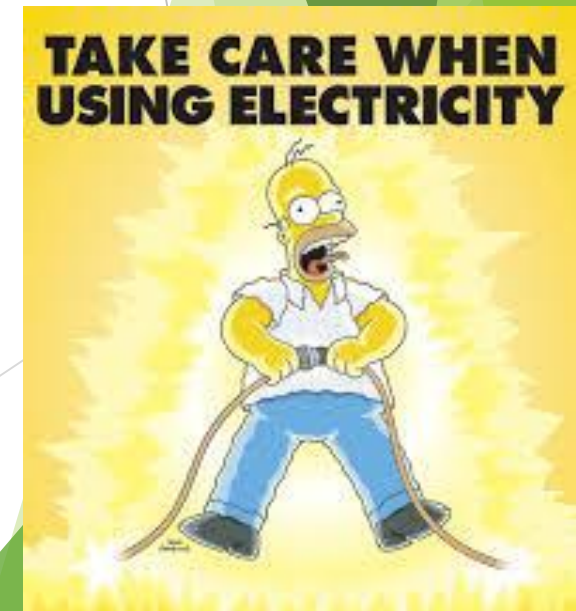
Other universal benefits of standardization include:

- ▶ **Confidence** - every day millions of people step into elevators, board airplanes, and work in high-rise buildings, safe in the knowledge that the architects and engineers who designed them applied the most rigorous engineering standards.
- ▶ **Ease of choice** - worldwide we have just three basic choices to make when fitting a light bulb to a socket: screw or bayonet, wattage, and clear or pearl?

Universal Benefits of Standardization

(2 of 2)

- ▶ **Universality** - In the next few years, you will see soft phones with USB wired and wireless headsets, notebook computers and monitors with built-in speakers and microphones, USB phones, and wireless phones (cell, dual mode, WiFi, WiMax, even DECT) begin replacing traditional proprietary PBX/IP PBX phones.
- ▶ **Electrical safety** - standardization of the inherent safety characteristics of electrical systems and devices ensures a near 100% safety record.



What is ISO 9000?



The **ISO 9000** family of standards represents an international consensus on good management practices with the aim of ensuring that the organization can time and time again deliver the product or services that meet the client's quality requirements. These good practices have been distilled into a set of standardized requirements for a quality management system, regardless of what your organization does, its size, or whether it's in the private, or public sector.

ISO 9000 - One - Two - Three (1 of 4)

If you have heard of ISO 9000, then it is most probably through ISO 9001, ISO 9002 or ISO 9003, the three quality assurance models against which organizations can be certified. You may have wondered what the difference between them is. The answer is that the difference is simply one of scope.



ISO 9000 - One - Two - Three (2 of 4)

It works like this:

- ▶ **ISO 9001** sets out the requirements for an organization whose business processes range all the way from design and development, to production, installation and servicing;
- ▶ For an organization which does not carry out design and development **ISO 9002** is the appropriate standard, since it does not include the design control requirements of ISO 9001 -- otherwise, its requirements are identical;
- ▶ **ISO 9003** is the appropriate standard for an organization whose business processes do not include design control, process control, purchasing or servicing, and which basically uses inspection and testing to ensure that final products and services meet specified requirements.

ISO 9000 - One - Two - Three (3 of 4)

So, an organization chooses that its quality system be certified against ISO 9001, ISO 9002, or ISO 9003 according to the business processes covered by the quality system. There is no difference of quality ranking between the three standards.

ISO 9000 - One - Two - Three (4 of 4)

According to ISO, the ISO 9000 standards are based on eight quality management principles. ISO chose these principles because they can be used to improve organizational performance and achieve success.

ISO Standards (1 of 8)

Here are the eight standards. **Think about what you think they mean to organizations.**

1. Focus on your customers!

Organizations rely on customers. Therefore:

- ▶ Organizations must understand customer needs.
- ▶ Organizations must meet customer requirements.
- ▶ Organizations must exceed customer expectations.

ISO Standards (2 of 8)

2. Provide leadership!

Organizations rely on leaders. Therefore:

- ▶ Leaders must establish a unity of purpose and set the direction the organization should take.
- ▶ Leaders must create an environment that encourages people to achieve the organization's objectives.

ISO Standards (3 of 8)

3. Involve Your People!

Organizations rely on people. Therefore:

- ▶ Organizations must encourage the involvement of people at all levels.
- ▶ Organizations must help people to develop and use their abilities.

ISO Standards (4 of 8)

4. Use a Process Approach!

Organizations are more efficient and effective when they use a process approach. Therefore:

- ▶ Organizations must use a process approach to manage activities and related resources.

ISO Standards (5 of 8)

5. Take a Systems Approach!

Organizations are more efficient and effective when they use a systems approach. Therefore:

- ▶ Organizations must identify interrelated processes and treat them as a system.
- ▶ Organizations must use a systems approach to manage their interrelated processes.

ISO Standards (6 of 8)

6. Encourage Continual Improvement!

Organizations are more efficient and effective when they continually try to improve. Therefore:

- ▶ Organizations must make a permanent commitment to continually improve their overall performance.

ISO Standards (7 of 8)

7. Get the Facts Before You Decide!

Organizations perform better when their decisions are based on facts. Therefore:

- ▶ Organizations must base decisions on the analysis of factual information and data.

ISO Standards (8 of 8)

8. Work with Your Suppliers!

Organizations depend on their suppliers to help them create value. Therefore:

- ▶ Organizations must maintain a mutually beneficial relationship with their suppliers.

Assignment #1 - International Organization for Standardization

- ▶ See handout: complete questions.

CE Marking & Assignment #2

Read article on CE Marketing and complete Assignment 1 Questions on handout.

Corporate Social Responsibility and Assignment #3

See Handout

- ▶ Read article on Corporate Social Responsibility and complete Assignment 3