INTRODUCTION TO EXCELLENCE MODEL ISO

FUNDACIÓN LABORAL DE LA CONSTRUCCIÓN

ACP Navarra

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Technological & Innovation Platform for Final Eficiency

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Quality definition

With the lowest possible cost

Well done

Suitab or use

No defects

Good at first sight

Customer satisfaction

Add value to the customer

Meet specifications

There are some many different definitions as people exists

Evolution

| | ... | 1960 | 1980 | 1990 | 2000 | ... |

Organization

Management system

Process

Product

Quality control

Quality assurance

Quality management

Excellence
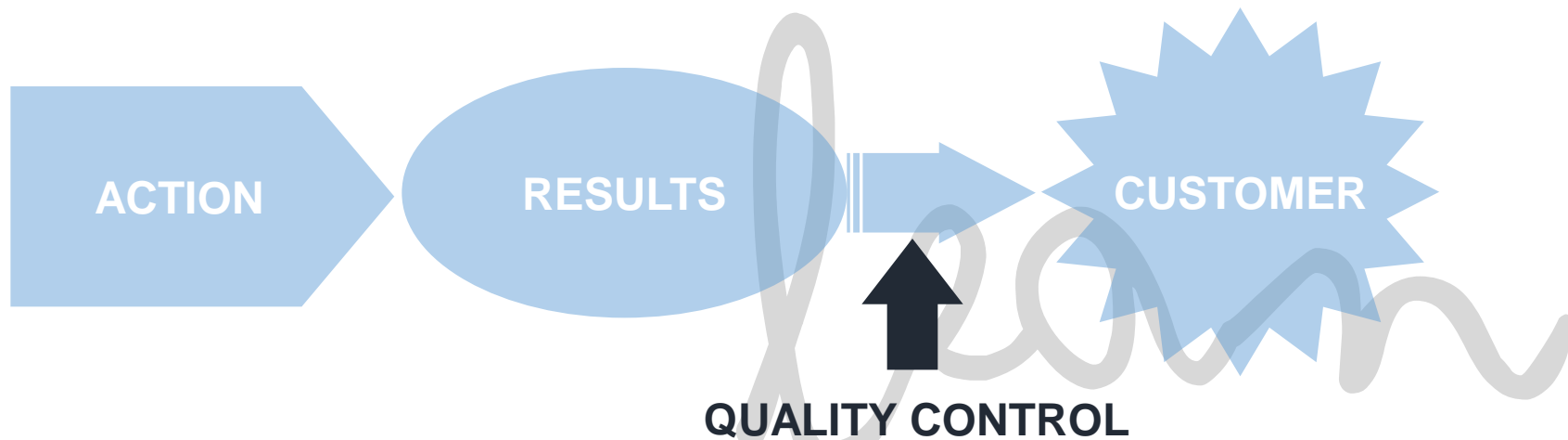
WHERE IS YOUR ORGANIZATION?

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Quality control

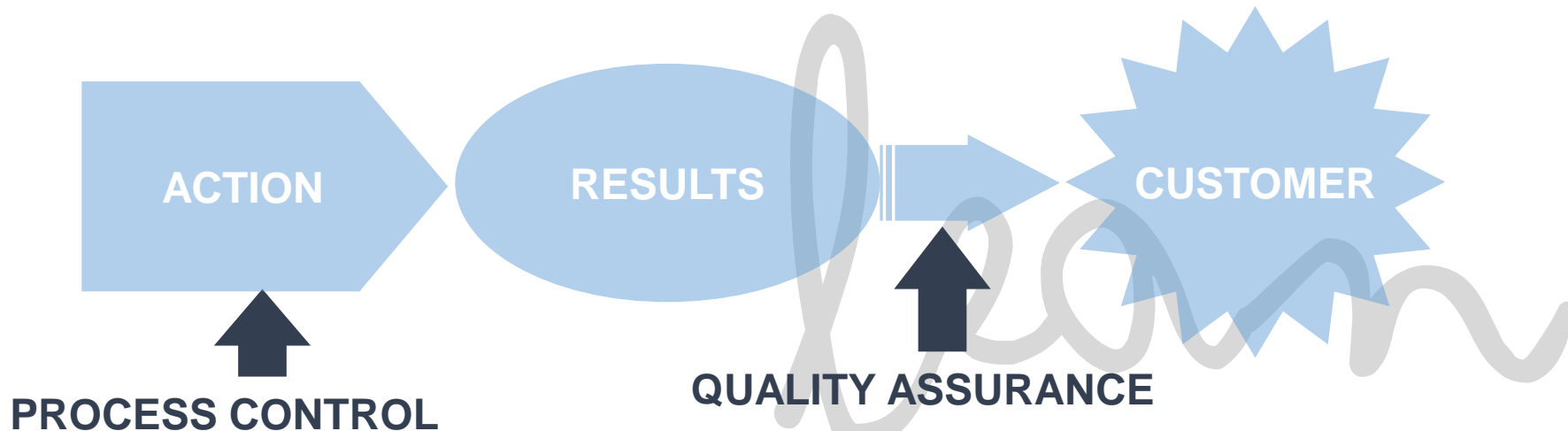- **Any system, action, tool... used to detect the presence of errors.**

  - At the end of the process
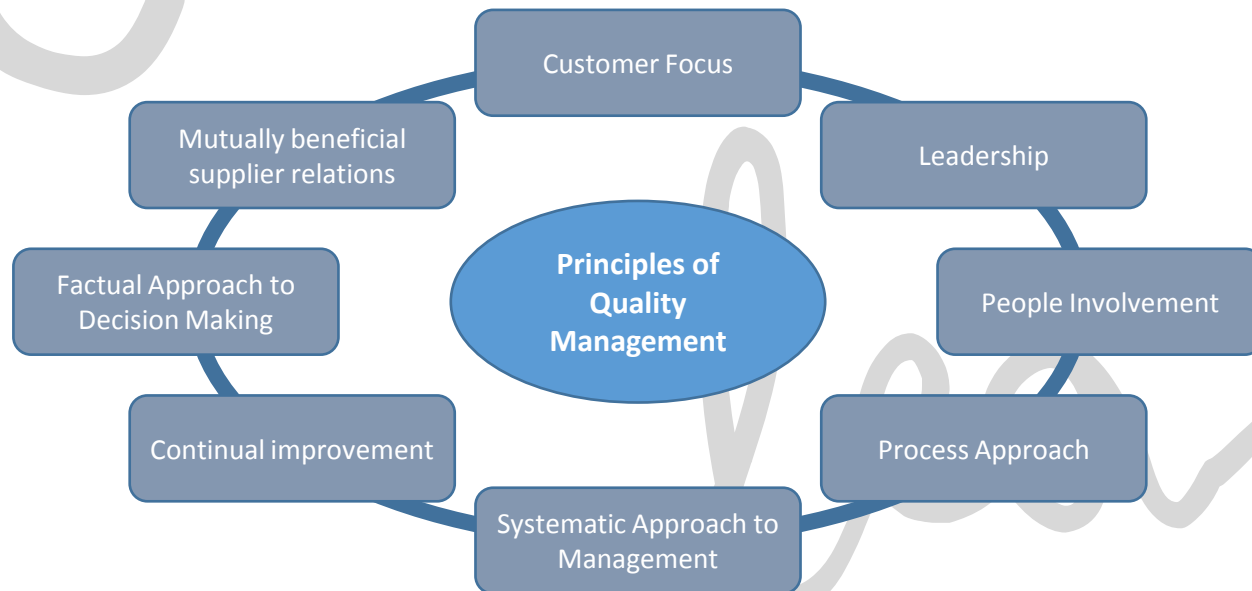 - During the process
  - Sampling

ACTION → RESULTS → CUSTOMER

QUALITY CONTROL

Quality assurance

- **Effort to plan, organize, manage and control the quality in a production system with the aim of giving the customer products with the right quality.**
  - Procedures
  - Autocontrol
  - Concerted quality, sampling at reception
  - Audits

ACTION → RESULTS → CUSTOMER

PROCESS CONTROL

QUALITY ASSURANCE

Quality management

- **Coordinated activities carried out on a set of elements (Resources, Procedures, Documents, Organizational Structure and Strategies) to achieve the quality of the products or services offered to the client.**

Customer Focus

Mutually beneficial supplier relations

Leadership

Principles of Quality Management

Factual Approach to Decision Making

People Involvement

Continual improvement

Process Approach

Systematic Approach to Management

Excellence

- **Global satisfaction applied to the business activity in all its aspects and stakeholders:**

  - Customers
  - Employees
  - Shareholders
  - Community
  - Suppliers
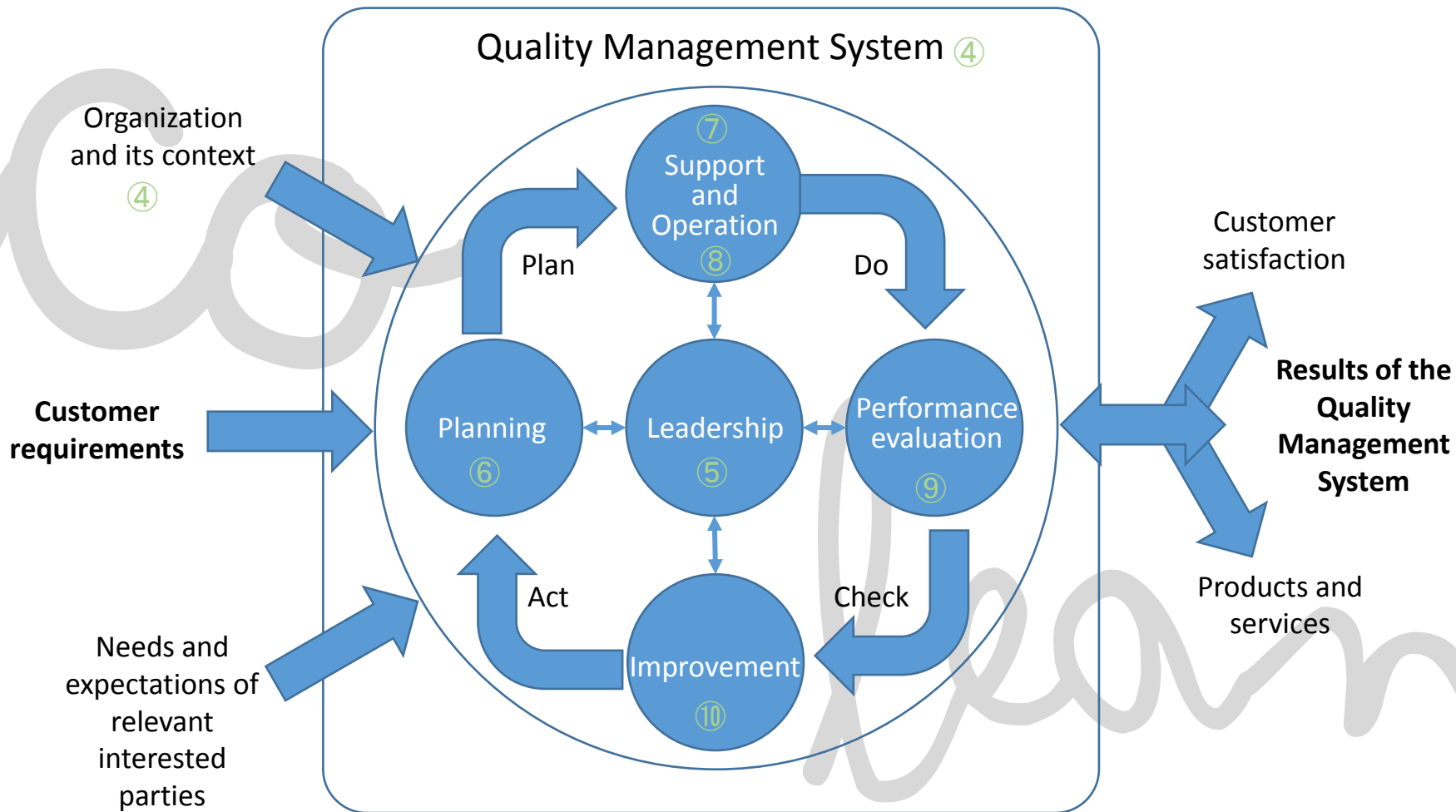 - Public Administration

ISO 9000 Standards

- **ISO 9000 is a set of international standards on quality management and quality assurance developed to help companies effectively implement and maintain an efficient quality system. They are not specific to any one industry and can be applied to organizations of any size.**

- **ISO 9000 can help a company satisfy its customers, meet regulatory requirements, and achieve continual improvement. However, it should be considered to be a first step, the base level of a quality system, not a complete guarantee of quality.**

- **Current versions of ISO 9000 Standards were published in September 2015 and include "ISO 9000 – Fundamentals and vocabulary " and "ISO 9001 – Requirements"**
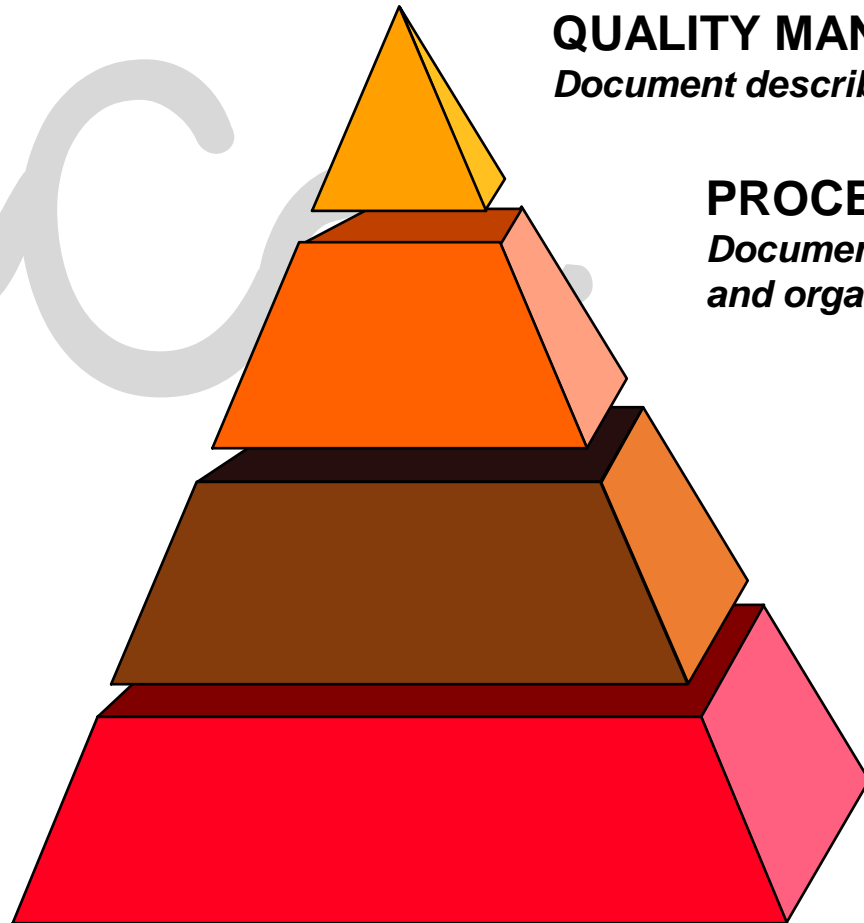
Representation of the structure of ISO 9001 Standard in the PDCA cycle

Numbers in circles refer to the clauses in the ISO 9001 Standard

Quality System Documentation

QUALITY MANUAL
Document describing the entire Quality System

PROCEDURES
Documents describing the main functions, processes and organization.

WORK INSTRUCTIONS
Detailed documents describing how an operation should be performed, and the acceptance criteria.

RECORDS
Documents that, once filled, attest the application of a procedure or a Work Instruction

Quality Audit

Methodological, independent and documented process that allows to obtain evidences and evaluate them objectively to determine the extent to which the audit criteria are met

- **External**: Carried out by external organizations by exigency of the client and according to an established Standard.

- **Internal**: Performed either by the organization itself or by external organizations contracted by it.
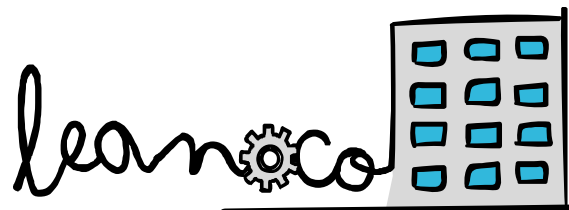
Certification

Prove, through a reliable document, issued by an authorized body, that a particular product or service meets the requirements defined by a standard.

Standards and Certificates

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Lean construcción

- **Parte 3: e:learning**

  - **Nivel transversal: Introduction lean toolbox**

Pamplona – 7/06/2017

Profit Impact ACMP SL

Target

- Proporcionar **herramientas lean** y complemento de información para su aplicación en un entorno de la construcción. Conocer para que sirve (**beneficios**) y como se utiliza (**recomendaciones**).
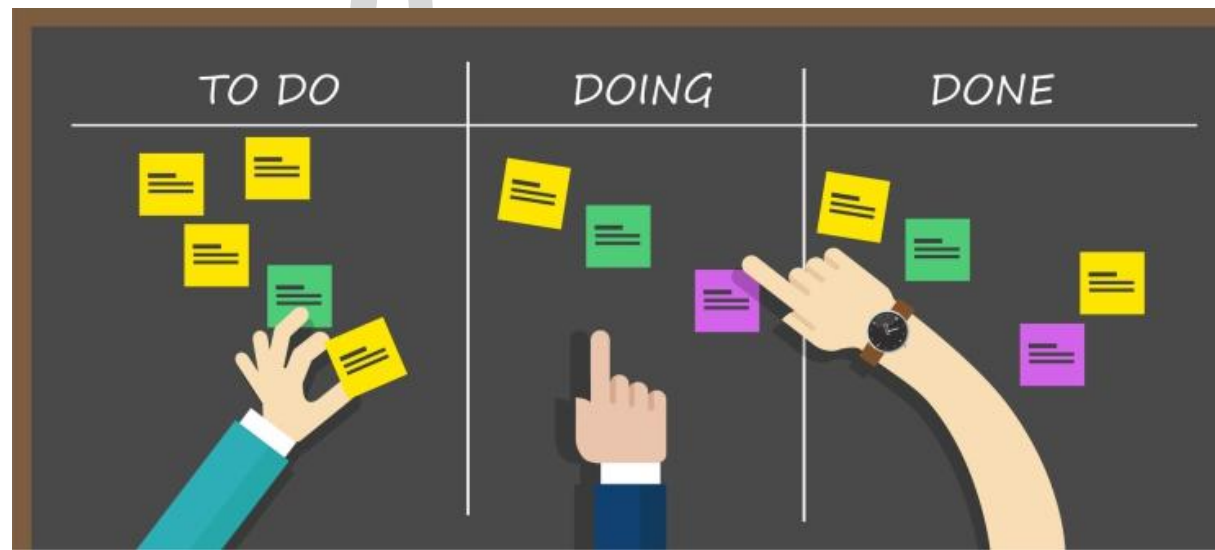
INDICE

1. **Management systems**

2. **Standards and visual management**

3. **Quality improvement**

4. **Activity 1**

5. **Activity 2**

6. **Test**

1 – Management systems

Target:

It is a introduction of different management systems of improvement that we can apply in one company.

Know the concept of continuous improvement for process and project.

Program:

- Introduction Iso 9001- Iso 14001 and iso 21500- OSHAS
- Continuous improvement: PDCA deming
- Continuous improvement: Kaizen event

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2- Standards and visual management

Target:

Understand why it is necessary to control our work tasks by standardization and know which tool can be applied to our project and in witch moment.

Program:

- Working instructions
- 5 "S" tool
- Visual management and Andon

2 – Need of standardisation

Before to implement 5S tool, Andon, management visual or standards, it is necessary to understand well: why will we need to stabilize the working environment?

Safety improvement
Reduce waste
Quality improvement
Best external perception by my costumers
etc

3- Quality improvement

Target:

Understand the main tool of resolving problem to begin the quality improvement way.
Know the diferents between to solve one problem and to improve my quality result.

Program:

- Introduction to problem solving proceses
- A3: resolving problem tool
- Poka yoke and Jidoka solution.

4 – Activity 1

Target:

Quantify the benefit to apply the 5S method and working instruction in one practical case.
Be able to identify some critical points in different cases and propose some solution to recover it.

Program:
- 5"S" method step by step (number case)
- Critical situation to recover it.
- Working instruction exercise

5 – Activity 2

Target:

Apply the tool of solving problem A3 with a practical case, use the necessary supports and tools.

Program:
- Definition of problem
- Roots causes analysis
- Action plan
- Control
- Standardisation

Target:

Evaluate the concepts and tools presented in the training. Reinforce the most important points of the different tools presented.
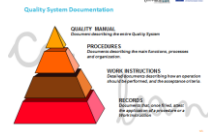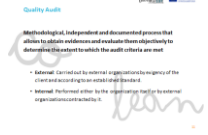
Program:

- Management systems
- Standards
- Quality improvement

	3.1.1- Introduction of excellence model ISO (EN)
	Every person has a different definition for the Word Quality, but most of them include the considetarion of satisfying a customer by serving him a product or service that meets his needs. When quality level is outstanding, we usually talk about "excellence".
	Since the emergence of the concept of quality in the business environment, there has been an evolution: First of all, the quality control, referred to the checks made to separate bad products and avoid serving them to the customer. Then, companies tried to ensure and guarantee that the products they created were good instead of controlling them and separating the bad ones. In In the 80s the companies evolved to manage quality rather than control or assure it. Lately, people talk about excellence when quality involves not only products and production processes but all business areas. Nowadays all these coexist in the business environment, so it's possible to find companies in different moments of evolution.
	Quality Control include any check performed to detect and separate defective products.
	Quality Assurance include work procedures and process controls to guarantee the quality of the end products.
	Quality Management tries to ensure that an organization, product or service is consistent. Quality management is focused not only on product and service quality, but also on the means to achieve and improve it. The picture on the slide introduces the Quality Management 8 principles, according with the International Standard for Quality Management ISO 9001, to guide the organizations towards improved performance.
	Business Excellence refers to outstanding practices in managing the organisation and achieving results, all based on a set of fundamental concepts or values. These practices have evolved into models, such as EFQM model, for how a world class organisation should operate. These models have been developed and continue to evolve through extensive study of the practice and values of the world's highest performing organisations.
	ISO 9000 was first published in 1987 by ISO (International Organization for Standardization). It was based on the United States Department of Defense standards. The ISO 9000 family of quality management systems standards is designed to help organizations ensure that they meet the needs of customers and other stakeholders while meeting statutory and regulatory requirements related to a product or program. Third-party certification bodies provide independent confirmation that organizations meet the requirements of ISO 9001. Over one million organizations worldwide are independently certified, making ISO 9001 one of the most widely used management tools in the world today. The main reasons for a Construction Company adopting the ISO 9000 standards are: 1. Standardize services and product quality: Application of the standard could ensure that build quality, methodology, and adherence to legislation are consistent, therefore ensuring consistent quality of product. 2. Reduce costs for the builder: Improvement of supply chain management and purchasing processes through ISO 9001-approved methods can reduce costs and increase profit margins. 3. Ensure continual improvement: Application of the standard should ensure that your business and associated processes improve year after year, increasing profits and growing the business accordingly.

	The figure on the slide shows the structure of ISO 9001 Standard in the PDCA (Plan – Do – Check – Act) cycle.
	Although the latest version of the ISO 9000 standard is not very demanding in relation to the volume of documentation that a company's quality system must include, the slide shows the documentary structure usually adopted by the companies implementing the standard.
	Quality audit is the process of systematic examination of a quality system carried out by an internal or external quality auditor or an audit team. It is an important part of organization's quality management system and is a key element in the ISO quality system standard, ISO 9001. Quality audits are typically performed at predefined time intervals and ensure that the institution has clearly defined internal system monitoring procedures linked to effective action. This can help determine if the organization complies with the defined quality system processes and can involve procedural or results-based assessment criteria.
	Although commonly referred to as "ISO 9000" certification, the actual standard to which an organization's quality management system can be certified is ISO 9001:2015. International Organization for Standardization (ISO) does not certify organizations itself. Numerous certification bodies exist, which audit organizations and, upon success, issue ISO 9001 compliance certificates. Many countries have formed accreditation bodies to authorize ("accredit") the certification bodies. Both the accreditation bodies and the certification bodies charge fees for their services. The various accreditation bodies have mutual agreements with each other to ensure that certificates issued by one of the accredited certification bodies are accepted worldwide. An ISO 9001 certificate is not a once-and-for-all award, but must be renewed at regular intervals recommended by the certification body, usually once every three years.
	The slide shows a summary of the main standards of different areas (quality, environment, safety ...) used by organizations. There are some among them, highlighted. Those are the most commonly used standards in the construction sector: - ISO 9000 – Quality Management - ISO 14000 – Environmental Management - OSHAS 18000 – Occupational Health and Safety Assessment Series - ISO 21500 – Project Management It also presents some examples of the seals with which certification bodies award the companies that satisfactorily pass the corresponding certification audit.