



EASIMS

Innovative Training Solution for implementing
Integrated Management System (IMS) in SME

**Process Management for the design
of an Integrated Management
System in SMEs that manufacture
furniture and other habitat
products**

Module 0

Process management

www.easims.erasmus.site





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Innovative Training Solution for implementing Integrated Management System (IMS) in SME

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Content

CONTENT.....	3
0. PROCESS MANAGEMENT.....	4
0.1. INTRODUCTION TO PROCESS MANAGEMENT.....	5
0.1.1. Definitions.....	5
0.2. PROCESS IDENTIFICATION.....	5
0.2.1. Map.....	6
0.2.2. IDEFØ Version.....	7
0.3. PROCESS DESIGN.....	9
0.3.1. Mission.....	10
0.3.2. Procedures.....	10
0.3.3. Indicators.....	12
0.3.4. Documents.....	13
0.4. PROCESS IMPLEMENTATION.....	14
0.5. PROCESS REVISION.....	15
0.6. PROCESS IMPROVEMENT.....	17
ANNEXES.....	18
A1 - BASIC STRUCTURE OF THE IMS FOR A FURNITURE MANUFACTURER.....	18
A2 - DOCUMENTS ASSOCIATED TO EACH DOCUMENTED IMS PROCEDURE.....	23
TABLES AND FIGURES.....	29
FIGURES.....	29
BIBLIOGRAPHY.....	30
BOOKS.....	30



0. Process management

"Organizations are no more than people who do things for other people..."

Josep María Costa.

"The genetic code is to species what processes are to organizations."

Enric Brull Alabart (2012)

"We get brilliant results from average people managing brilliant processes, while our competitors get average or worse results from brilliant people managing broken processes".

Katsuaki Watanabe, president of the Toyota Motor Corporation.

"Yes, ...the 'office work revolution' has definitively started. Yes, I believe that more than 90% of office work will disappear or be overhauled so that it will be impossible to recognize it in 10 or 15 years."

Peters (2005).

"An organization is only as good as its processes."

Rummler (1990).



0.1. Introduction to process management

In the 1990s, different contributions arose in the subject of business management which, albeit providing different focus points, all suggest adopting **Process Management** as one of the fundamental elements in management. The most important are:

- **EFQM:** One of the eight Fundamental Concepts of Model EFQM:2013 is "Process Management" which is displayed in criterion 5 in its structure: Processes, Products and Services.
- **ISO 9001:** One of the Principles of ISO 9001:2015 standard is "The Process Approach".

Given this coincidence we understand the need to integrate these standards, and others, into a model or robust process architecture that allows for easy practical application while allowing us to unveil a very light documentation system. The model that we present is nothing more than one possibility way of representation, in no case is it the only possible manner.

In their book "Evolutionary Theory of Economic Change" Nelson and Winter (1974) present an intriguing analogy between the evolution of the species - taking genes as the origin - and the evolution of organizations - taking "routines" - as the origin. They explain the concept of "organizational routines" as routine activities that make up an organization.

The fact of formalizing a routine, of making it important, turns the routine into a process.

0.1.1. Definitions

- **Process:** "A set of repetitive activities, and its resources, that add value to the organization".
- **Process management:** "A structured and systematic methodology that **identifies, designs, implements, revises** and **improves** the organization's processes".

0.2. Process identification

When faced with **Process Management Implementation Project**, the first thing to do is to **identify the processes**. Identifying a process is to break the organization's activity "into pieces", dividing them into homogeneous groups. All the processes can be detailed in lower level processes until achieving the desired level of detail. In this way, we can end up with a set of processes that can be represented in tree form. Therefore, a process can be detailed up to 3-digit processes and, another, can be detailed up to 6-digit processes. We recommend not being too "detail oriented" as we could end up with 5,000 processes.

Identifying processes results in the "**Process Model**" of an organization.



0.2.1. Map

The upper part of a Process Map is typically called the “**Process Map**”. This is the currently most implemented model. This map has three process groups: Strategic, Operational and Support¹.

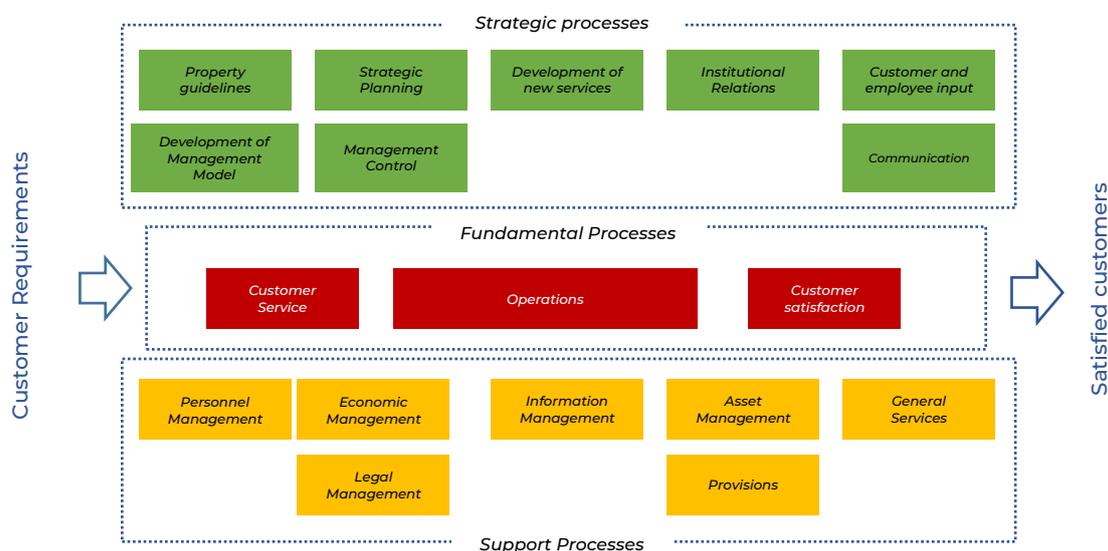


Figure 1. The "classic" Process Map

- **Strategic or Management Processes:** Those which give guidelines or operational pathways to all the other processes.
- **Operational or Fundamental Processes:** Those which create value to external customers. In the example case these are the "Customer Service", "Operations", and "Customer Satisfaction" processes.
- **Support Processes:** Those which give support and resources to all the other processes.

In order to orient readers, we will create an approximate list of processes that would form the typical Process Map of an organization. We will list them by groups:

a) **Strategic Processes:** Property guidelines, Strategic Planning, Management Control, Development and Innovation, Relations with institutions, Customer Input, Employee Input, Communications, ...

b) **Operational Processes:** Customer Service, Operations, Logistics and Customer Satisfaction. The Operations process can likely be subdivided in turn into lower level processes.

c) **Support Processes:** Personal Management, Economic Management, Legal Management, Information Management, Asset Management, Provisioning, General Services, ...

¹ See Costa, Josep Maria (1998)

0.2.2. IDEFØ Version²

A more evolved stage in Process identification involves the adaptation of a methodology that can observe the **interrelationships** (interactions, according to ISO 9001) between processes. For this purpose, we have adopted the **IDEFØ methodology**. An IDEFØ (pronounced 'idef zero') model is something more than a Map, as it presents a higher and more flexible level of detail, although we can principally highlight the feature that it presents precise interactions between processes.

IDEFØ is used to produce a “**functional model**”. A functional model is a **structured representation** of processes (functions or activities) of the system to be modelled. In the original form, IDEFØ includes a definition of the language of the visual model (syntax and semantics) and a description of an extensive methodology for models under development.

IDEFØ has different forms of representation.

- A. **Diagrams.** This form represents the processes in diagrams (DINA4 pages). The set of diagrams that explain the organization is known as the **IDEF Model of the Organization**.

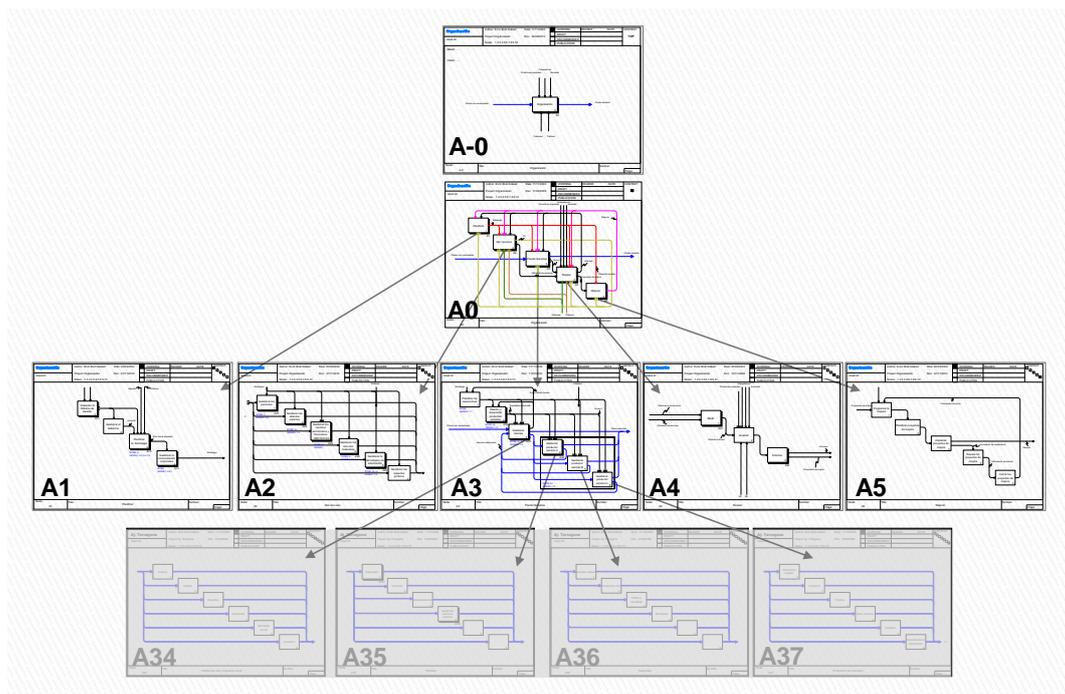


Figure 2. Example of a visual representation of an IDEF model of an organization (source: Eric Brull)

Each diagram represents between 3 and 6 processes (in the form of boxes). One important characteristic is that each process of a diagram can be displayed by creating

² See <http://www.idef.com>

another lower level diagram that explains it, also between 3 and 6 processes, until the level of detail is deemed sufficient.

This is the most grounded and differential manner of identifying the processes of an organization because we can visualize the interactions between processes. All the processes are connected via arrows. Those that enter through the left hand side of the box are called “**inputs**”, those which exit from the right hand side are called “**outputs**”, those which enter through the top side are called “**controls**” or guides and those that enter from the lower side are called “**mechanisms**” or resources.

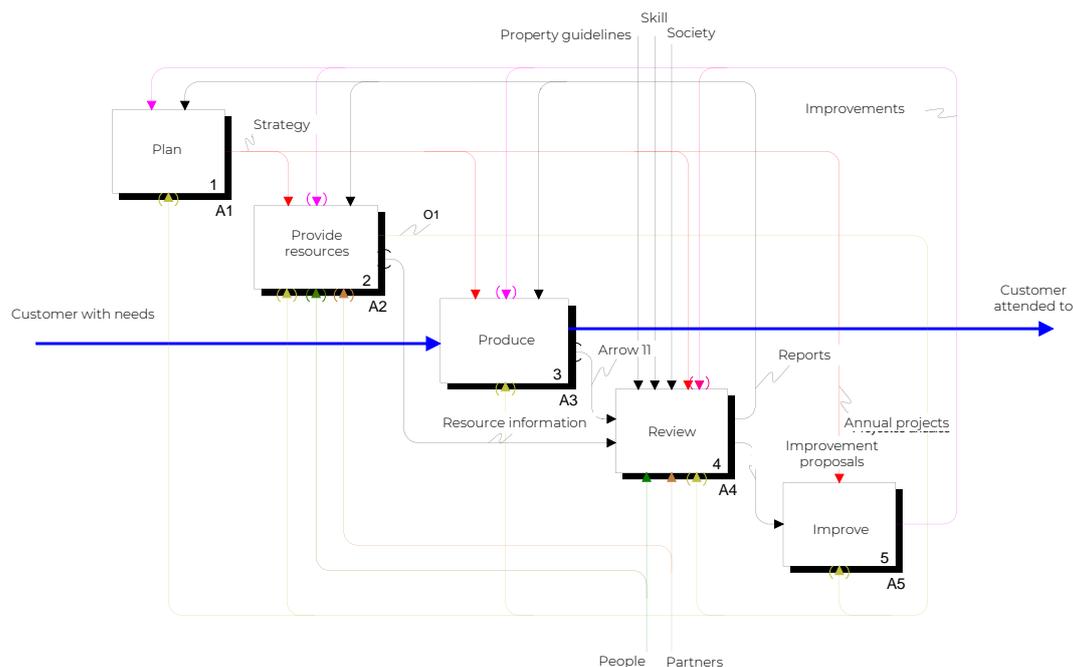


Figure 3. Visual representation of the A0 process in an organization.

The five 1-digit process groups of our model are:

- **Plan (A1)**: these include the processes that manage the organization's strategy and which mark directives or guidelines to the other processes.
- **Provide resources (A2)**: these include all the necessary processes to provide resource support to the other processes.
- **Produce (A3)**: these include the processes to carry out the activities that develop the mission of the organization: producing products or providing services.
- **Check (A4)**: these include the processes that measure the activity of all processes and determine the related deviations from what had been planned.
- **Improve (A5)**: these include all the processes that allow for improvement in an organization. This group represents the most innovative part of the concept of process management as it incorporates the management of organizational knowledge in a structured and formal manner.



- B. Node Index. IDEFØ also allows the processes to be represented in the form of “**Node Index**”, as a tree, as we show below. We can see the 1-digit and 2-digit processes (1st level and 2nd level). The processes can be displayed up to as many levels as necessary.

A1 Plan

- A11 Designing the Management System
- A12 Managing Corporate Governance
- A13 Planning the strategy
- A14 Communicating the strategy

A2 Provide resources

- A21 Managing people
- A22 Managing partnerships
- A23 Managing economics and finances
- A24 Managing infrastructures
- A25 Managing technology and information
- A26 Managing legal aspects (or compliance)

A3 Produce

- A31 Planning operations
- A32 Designing and developing products
- A33 Managing Customers
- A34 Producing
- A35 Delivering products

A4 Check

- A41 Measuring
- A42 Analysing
- A43 Informing

A5 Improve

- A51 Planning improvement
- A52 Managing challenges
- A53 Managing projects

Figure 4. Example of an organization's Node Index

0.3. Process Design

Once the processes are identified, they need to be **designed**. Frequently, a **Process Sheet**, or a similar product, is built in this stage which includes a series of elements. Although these characteristics may vary according to the author's focus, the most common are:

- a. Mission
- b. Procedures
- c. Indicators
- d. Documents

We can highlight two of these elements: **Procedures** and **Indicators**. All processes must have both elements.



0.3.1. Mission

The **mission** of a process describes the reason why the process exists. The mission of the process must be in line with the corporate mission. Put another way: the corporate mission is rolled out within the organization through the process missions. This is a concept that requires reflection, as a well formulated process mission allows for a more precise design.

Example of the process mission of "Personal Management": Integrating people so that they effectively contribute to achieving the organization's strategy.

0.3.2. Procedures

We have seen that a process is "a set of activities that generate added value". The **procedures** describe the set of activities to be developed.

Definition: "A procedure is a set of sequentially ordered **tasks** that can be reproduced".

A procedure may or may not be documented. If the procedures are documented, they can be represented in a visual form, in text form or in mixed form.

A procedure offers two key points: repeatability and the level of detail.

- **Repeatability:** The key purpose of a procedure is to allow for it to become a repeatable routine. To do so, the following condition must be met: the people (job positions) that execute a procedure must have the necessary knowledge to be able to interpret it. With this premise, drafting the procedures must be done considering the people who are going to execute said procedures.
- **Level of detail:** Drafting the procedures involves a good deal of art. A complex procedure can be drafted simply by a good writer while, on the contrary, a simple procedure can be drafted in a very complex manner by a poor writer. The level of detail is one of the most controversial decisions of drafting procedures and, more broadly, of process management in general. We highly recommend using a minimalist writing style. We don't need to write anything more than we need to write; a procedure is not a novel. Any details that do not contribute quality to the execution of the process should not be written. Writing with minimalist criteria allows for a better understanding of the system and therefore reduces the probability of errors. The procedure must show the level of detail that ensures that it can be executed appropriately considering the knowledge of the person who must execute it (reading). The maximum level of detail demanded will be what appears in a procedure's task.

We must write procedures that have a greater impact on our organization with greater precision. Those that have been written imprecisely will be easily detected during the implementation period, because they will lead to a greater number of incidents.



Procedures are formed by a set of **tasks**. A task is the basic element of an organization's activity. This is the greatest level of detail required in order to obtain the expected quality.

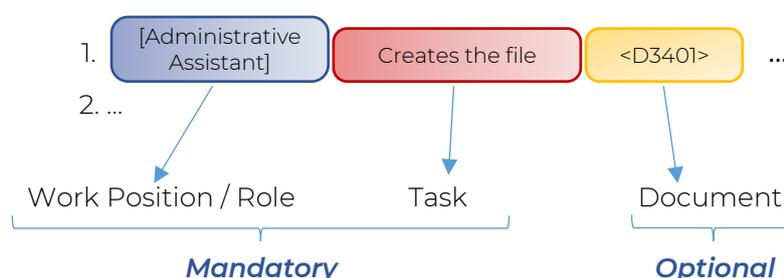


Figure 5. Example of a procedural task

Textual procedures are composed of **tasks**. Each task must clearly contain at least two necessary aspects and one optional aspect:

- **Who** is responsible (job position) for executing the task?
Specify 'who' (the job position) is responsible for carrying out a task; it is not necessary to put the person's name. The job position has to be defined in the organization's **Job Position Catalogue**. We write the position in brackets [...].
Example: [Director], [Head of Personnel], ...
- **What does the person do**, what must be the result?
Specify 'what' the person responsible (the person who has the job position) does to carry out the task.
This is written with a verb in the present tense in third person first and, then, the detail of the task.
Example: 'Convenes the managerial team', 'Signs the meeting minutes', etc.
- Optionally, the related **document** can be included.
The documents (individual documents or records) are referenced in the procedure tasks, as part of the task. The document has to be defined in the organization's **Document Scorecard**. We write them in chevrons <...>
Example: [Director] Signs the meeting minutes <D133: Planning meeting minutes>.

0.3.3. Indicators

Indicator definitions:

- "An indicator is a magnitude that can evaluate a process."
- "An indicator is an element that is used to indicate or signal something."
- "An indicator is a device or signal that communicates or highlights a fact."
- "An indicator is an expression (which can be numeric, symbolic, or verbal) used to characterize activities (events, objects, persons) both in quantitative and qualitative terms in order to assess the value of the activities characterized, and the associated method" (ISO 11620, UNE 50137).
- "This is a figure that provides a simple and reliable base to describe a change, a result, an activity, or an input". (EuropeAid).

We have seen that a process is "a set of activities that generate added value". **Indicators** allow us to assess the added value of the process.

The indicators are therefore magnitudes associated with processes that can be evaluated. A process, by definition, has to generate added value for the customer and it must be possible to measure this value. Indicators are a set of magnitudes that must be measured during process execution and must allow for us to determine the **efficiency of the process**.

An indicator has a **descriptive** dimension and a **measurable** dimension (data, values). An indicator is described with the property that it measures and the magnitude that it measures.

The basic attributes (metadata) of an indicator are:

- The name
- The form of calculation
- The measurement frequency
- The definition of responsibilities
- The definition of a goal or limits (optional)
- ...

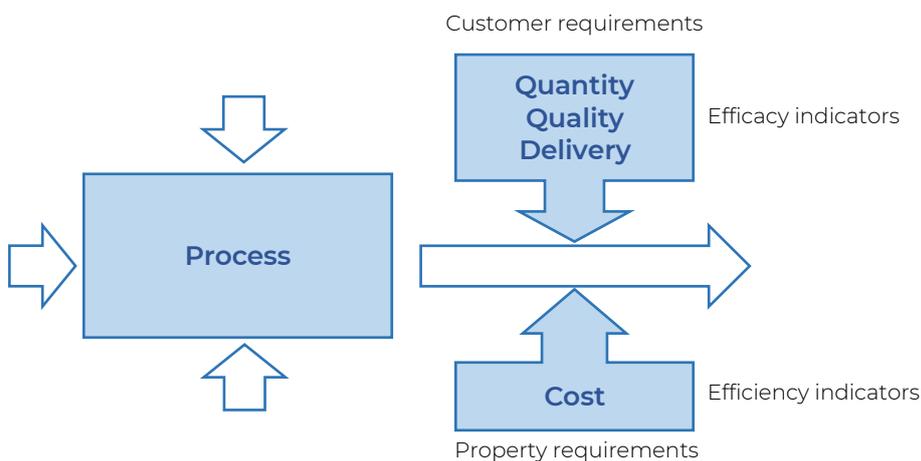
According to Parmenter (2007) there are three **types** of indicators:

- a. **KRI** (*Key Results Indicators*), which provide perspective. They inform what must be done with perspective in the medium term. They are the result of many actions.
- b. **PI** (*Performance Indicators*). They inform what must be done now.
- c. **KPI** (*Key Performance Indicators*). They inform what must be done to increase productivity drastically. This is the set of more critical measures focused on the organization's performance for the present and future success. These induce results and are related to the organization's strategy.



Grouping indicators into types can be a useful way of managing them. For example, we can define indicators in different ways:

- a. quantity
- b. quality
- c. delivery
- d. cost



or

Figure 6. Examples of types of indicators associated to a process

Another way, according to Kaplan (1995), is to group the indicators into:

- a. finances
- b. customers
- c. processes
- d. formation and growth

A set of indicators associated to a process is known as the process **Scorecard**.

0.3.4. Documents

We have seen that some of the tasks may include (creating, entering data or closing) **documents** (whether physical or computer).

A. Document Management System

Each document must be identified. The concept of **Document Management System** must be integrated. The document management processes are:

- a. Collection
- b. Registry
- c. Classification
- d. Access and security classification
- e. Storage
- f. Use and follow up

g. Implementing availability

The basic instrument to identify the documents is the **Document Classification Scorecard** (DocCS) that contains a list of hierarchically grouped records, to which the **documents** (registries) are associated. Apart from the identifying data, the DocCS contains "metadata". The metadata are data that can characterize a document. The following are examples of metadata: the person who created, modified or cancelled it, the place of storage, the retention time, the support, etc.

B. Forms

Documents are information formats. To make it easier to enter the information it is useful to use "Forms" which are documents with Sections. Each section contains fields that will be filled with the corresponding data during Implementation (see 0.4). This way this makes it possible to have the information with a minimum data structure.

Forms, in their purest state, are not documents as they do not contain data. Once a form is filled in it becomes a document.

0.4. Process Implementation

The automated processes must be **implemented**. In this point, the people of the organization execute the designed procedures (see 0.3 Process Design). This is the time to ensure the quality of the execution and to generate the data (records) necessary to review the process in the following section.

There are two basic forms of **process implementation**: manual and automatic.

A. Manual Implementation

This involves taking the drafted "Procedures" as reference (see 0.3.2 Procedures). The employees have access to all the procedures in which they participate and they follow the written document to perform the tasks. Given that each one of the tasks, first off, describes the job position that has to perform the task, the employee that occupies the job position must know what they have to do.

Access to the procedures can be in paper format or, better still, in the computer system (disc with shared access, website, etc.).

This way of working includes the risk of committing interpretation, reading or synchronization errors of the tasks between the employees.

B. Automatic Implementation

There has been an important growth over the last decade in the production chains with the incorporation of robots and artificial intelligence. In recent years, in service organizations, automation is entering the "service chains" with the incorporation of BPM platform. In both cases, this points toward an exponential growth of technologies that are leading toward improving the productivity of productive processes.



For these reasons, another more advanced form of executing an organization's activity is by automating the procedures through flow diagrams (with BPM philosophy and tools) in such a way that employees "only" have access to the tasks that each of them is going to execute.

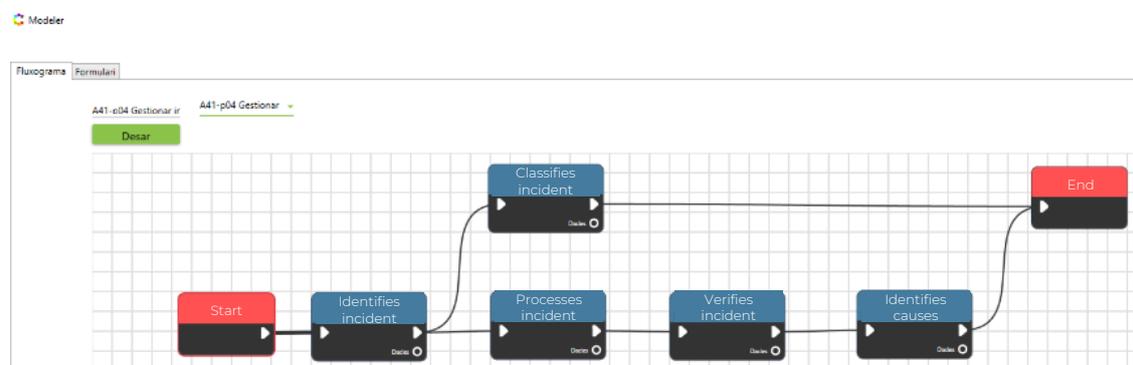


Figure 7. Example of automatic process implementation

This way of working involves less risk than the "manual" way as an employee will only have access to "their" tasks and will also not have to worry about how the execution order must be received and to whom the executed tasks must be sent. Additionally, the execution of the entire activity will allow for complete traceability for what has been executed. In the next section (see 0.5 Process revision), we will return to traceability.

C. Mixed implementation

According to the process, the level of automation may be mixed, that is, certain tasks are to be implemented manually and others automatically, but a process can also have mixed implementation.

0.5. Process revision

Processes must be **measured** with a predetermined frequency. Since certain **indicators** are associated to each process to be able to evaluate how the process works during process Design (see 0.3), and if the corresponding values are collected during the process implementation (see 0.4), we can see how the process works.

The entire set of knowledge generated during the organization's activity is still "Knowledge". Knowledge can be in different states:

- **Tacit**, that which is in the minds of the people who are in the organization.
- **Explicit**, that which is in the organization, in a paper or computer format.

Each organization must determine what knowledge must be explicit, which is no easy task. To do so, if we have suitably documented the activity performed during the implementation through a set of forms or a set of data in a computer database, as we have commented in the previous section, we will be able to ensure a specific level of **traceability**.

The organization's knowledge can be structured based on: the Incidents produced, the reports from the Reports System, stimulating what is in people's minds and the knowledge obtained from monitoring the key elements that can affect the future of our organization.

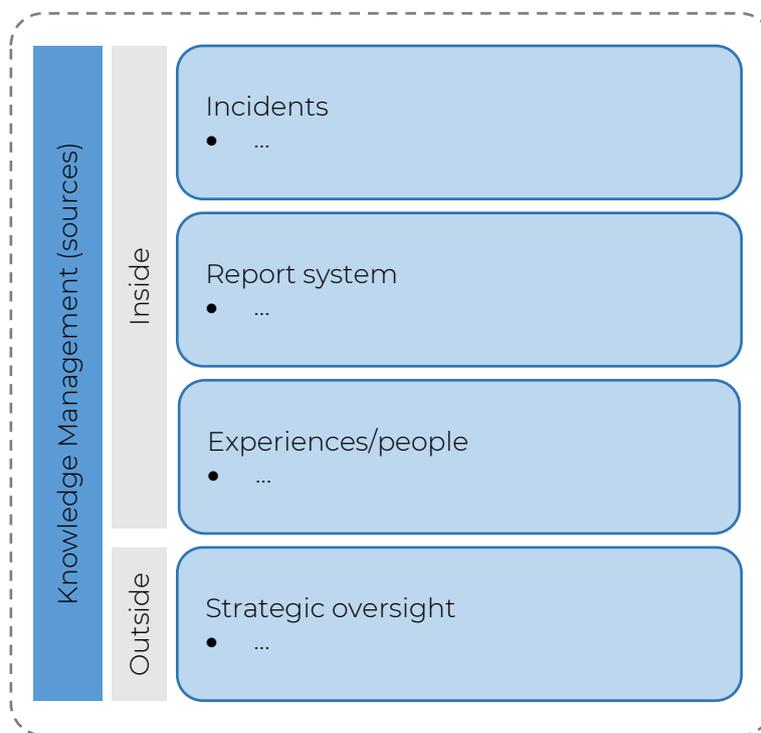


Figure 8. Sources to manage knowledge in an organization

The reason to promote a focus on **traceability** is to be able to respond to two key requisites:

- For all employees **to be accountable**: directors, middle managers and all operational personnel. All levels of an organization must be accountable. Being accountable has two extremes, from a simple verbal explanation (in the lower limit) to a well-grounded explanation in documents that incorporates a variety of graphs, tables and textual explanations (in the upper limit).
- Being able to identify **Improvement Opportunities** can lead to Improvement Actions/Projects (see 06 Process Improvement). This is the most well-grounded way to take decisions.

To do so, the data generated must be **analysed** through a set of reports that display the most relevant aspects, which will be the basis for decision making.

0.6. Process improvement

Based on the reports generated and after interpreting the reports, this must lead to a series of **Improvement Opportunities**.

The Origins of the most important Improvement Opportunities are, as we have seen in the previous section:

1. All the incidents, Non-conformities, complaints...
2. All the reports generated by the system
3. Those obtained from the experience/creativity of the people in the organization, through brain storming, creativity sessions, etc.
4. Strategic surveillance in the form of monitoring the behaviour of those relevant aspects of the outside, such as the market, customers, technology, the economy, demography, politics, etc.

Example: An incident occurs in a cabinet when a door fell off. The first action was to repair the door and revise the entire cabinet so that the client is attended to. Next, the incident was analysed and the cause that led to it was identified. The issue was due to deficient hinges. This cause identified an "Improvement Opportunity" that led to the creation of an "Improvement Action".

Given that there may be a high number of Improvement Opportunities, we want to create mechanisms to **prioritize** items in the "Improvement Programme", prioritizing Improvement Opportunities that we want to turn into Improvement Actions. Prioritizing can be done by weighting different factors: the level of customer involvement, the cost, the level of alignment with the organization's strategic objectives, etc.

The selected projects to be prioritized must be **implemented**. It is important to adopt a solid "Project **Management**" methodology, such as PMI or ISO 21500 for example. In the case of managing unpredictable projects, we can use agile methodologies such as Kanban and SCRUM.

In the event that the projects need innovation, creativity techniques can be applied through "**Challenges**" which are activities that make it easier to generate ideas.

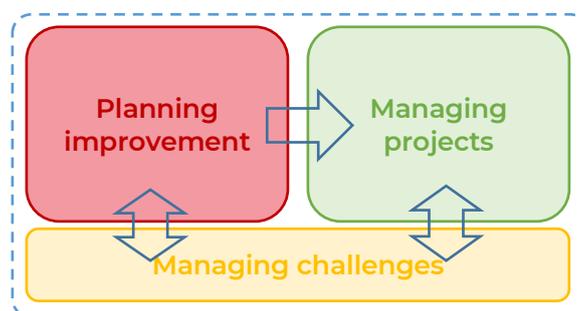


Figure 9. Improvement process framework in an organization

To a good degree, companies' capacity to adapt is conditioned by the skill in identifying improvement opportunities and turning them into Improvement Actions/Projects.

Annexes

A1 - Basic structure of the IMS for a furniture manufacturer

	ISO 9001:2015	ISO 14001:2015	ISO 45001:2018
A1 Plan			
A11 Designing the Management System	4.3 / 4.4	4.3 / 4.4	4.3 / 4.4
<i>A11-p01: Implementing the Management System</i>			
<i>A11-p02: Identifying and designing processes</i>			
<i>A11-p03: Determining the scope</i>			
A12 Managing Corporate Governance	-	-	-
<i>A12-p01: Managing the Managerial Teams</i>			
A13 Planning the strategy	4.3 / 5.2 / 6.2 / 6.3	4.3 / 5.2 / 6.2	4.3 / 5.2 / 6.2 / 8.1
A13-p01: Planning the strategy	4.3 / 5.2 / 6.2 / 6.3	4.3 / 5.2 / 6.2	4.3 / 5.2 / 6.2 / 8.1
A14 Communicating the strategy	7.4	7.4	7.4 / 5.4
A14-p01: Determining internal communications	7.4	7.4	7.4
A14-p02: Determining external communications	7.4	7.4	7.4
<i>A14-p03: Employee consultation and participation</i>			
A2 Provideresources			
A21 Managing people	5.3 / 7.1 / 7.1.4 / 7.2 / 7.3	5.3 / 7.1 / 7.2 / 7.3	5.3 / 7.1 / 7.2 / 7.3
A21-p01: Assigning responsibilities	5.3 / 7.1	5.3 / 7.1	5.3 / 7.1
A21-p02: Determining skills	7.2	7.2	7.2
A21-p03: Evaluating people	7.2	7.2	7.2
A21-p04: Planning training	7.2	7.2	7.2
A21-p05: Providing training	7.2	7.2	7.2

A21-p06: Evaluating training	7.2	7.2	7.2
A21-p07: Managing health check-ups	-	-	6.1/9.1
A21-p08: <i>Becoming aware</i>			
A21-p09: <i>Evaluating job satisfaction</i>			
A21-p10: <i>Managing a new hire</i>			
A22 Managing partnerships	8.4	8.1	8.1/8.1.4
A22-p01: Evaluating suppliers (certifying)	8.4	8.1	8.1.4
A22-p02: Managing external supplies	8.4	8.1	8.1
A22-p03: Re-evaluating suppliers	8.4	8.1	8.1.4
A22-p04: <i>Coordinating business activities</i>			
A22-p05: <i>Monitoring visits</i>			
A22-p06: <i>Hiring the External Prevention Service - EPS</i>			
A23 Managing economics and finances	-	-	-
A24 Managing infrastructures	7.1.3/7.1.5	7.1/8.1	7.1/8.1.2
A24-p01: Drafting the infrastructure maintenance plan	7.1.3	7.1	7.1
A24-p02: Executing the infrastructure maintenance plan	7.1.3	7.1	7.1
A24-p03: Drafting the measurement equipment maintenance plan	7.1.5	7.1	7.1
A24-p04: Executing the measurement equipment maintenance plan	7.1.5	7.1	7.1
A24-p05: Managing environmental vectors (e.g. waste)	-	8.1	-
A24-p06: Managing the personal protection equipment.	-	-	8.1.2
A25 Managing technology and information	7.1.3/7.5	7.1/7.5	7.1/7.5
A25-p01: Drafting the IT maintenance plan	7.1.3	7.1	7.1
A25-p02: Executing the IT maintenance plan	7.1.3	7.1	7.1
A25-p03: <i>Making back-up copies</i>			
A25-p04: <i>Recovering back-up copies</i>			
A25-p05: Identifying the documents	7.5	7.5	7.5
A26 Managing legal aspects (or compliance)	8.2.2	6.1.3	6.1.3

A26-p01: Identifying the applicable legal and regulatory requisites	8.2.2	6.1.3	6.1.3
A3 Produce			
A31 Planning operations	8.5.1	8.1	8.1
A31-p01: Planning production	8.5.1	8.1	8.1
A32 Designing and developing products	8.2 / 8.3.2 / 8.3.3 / 8.3.4 / 8.3.5 / 8.3.6	8.1	8.1
A32-p01: Managing the Product Catalogue	8.2	8.1	8.1
A32-p02: Planning design and development	8.3.2	8.1	8.1
A32-p03: Determining the design input elements	8.3.3	8.1	8.1
A32-p04: Controlling design and development	8.3.4	8.1	8.1
A32-p05: Determining design results	8.3.5	8.1	8.1
A32-p06: Managing design and development changes	8.3.6	8.1	8.1
A33 Managing Customers	8.2.1 / 8.2.2 / 8.2.3	7.4 / 8.1	7.4 / 8.1
A33-p01: Providing information about products	8.2.1	7.4	7.4
A33-p02: Addressing consultations (pre-sales)	8.2.1	7.4	7.4
A33-p03: Determining requirements (sales)	8.2.2	7.4	7.4
A33-p04: Changing requirements	8.2.3	8.1	8.1
A33-p05: Obtaining customer feedback - Complaints	8.2.1	7.4	7.4
A33-p06: Obtaining customer feedback - Congratulations	8.2.1	7.4	7.4
A34 Producing	8.5 / 8.5.2	8.1	8.1
A34-p01: Receiving the raw material	8.5	8.1	8.1
A34-p02: Manufacturing the product	8.5	8.1	8.1
A34-p03: Controlling traceability	8.5.2	8.1	8.1
A35 Delivering products	8.6	8.1	8.1
A35-p01: Delivering the product	8.6	8.1	8.1
A4 Check			

A41 Measuring	4.1 / 4.2 / 6.1 / 8.7 / 9.1 / 9.1.2 / 9.2.2 / 10.2	4.1 / 4.2 / 6.1 / 6.1.2 / 8.2 / 9.1.2 / 9.2 / 10.2	4.1 / 4.2 / 6.1 / 6.1.2 / 8.1 / 8.2 / 9.1 / 9.2 / 10.2
A41-p01: Understanding the macro-environment (external context)			
A41-p02: Understanding the organization (internal context)			
A41-p03: Understanding the interested parties			
A41-p04: Determining risks and opportunities			
A41-p05: Drafting the Strategic Analysis Report (SAR)	4.1	4.1	4.1
A41-p06: Managing strategic oversight (knowledge)			
A41-p07: Managing experiences (knowledge)			
A41-p08: Managing Non-Conformities/Incidents	8.7 / 10.2	10.2	10.2
A41-p09: Measuring customer satisfaction	9.1.2	-	-
A41-p10: Drafting the auditing programme	9.2.2	9.2	9.2
A41-p11: Performing the audits	9.2.2	9.2	9.2
A41-p12: Determining and evaluating environmental aspects	-	6.1.2	-
A41-p13: Managing emergencies	-	8.2	8.2
A41-p14: Identifying dangers and evaluating risks	-	-	6.1.2
A41-p15: Evaluating compliance with legal and regulatory requisites	9.1	9.1.2	9.1
A41-p16: Controlling activities and conditions			
A42 Analysing	9.1	9.1	9.1
A42-p01: Evaluating the IMS Performance	9.1	9.1	9.1
A43 Informing	9.1 / 9.3	9.1 / 9.3	9.1 / 9.3
A43-p01: Designing the Report System			
A43-p02: Revision by management (monthly)	9.3	9.3	9.3
A43-p02: Revision by management (annual)	9.3	9.3	9.3
A5 Improve			
A51 Planning improvement	10.1 / 10.2 / 10.3	10.1 / 10.2 / 10.3	10.1 / 10.2 / 10.3

A51-p01: Planning improvement	10.1/10.2/10.3	10.1/10.2/10.3	10.1/10.2/10.3
A52 Managing challenges	10.1/10.2	10.1/10.2	10.1/10.2
A52-p01: Managing challenges	10.2	10.2	10.2
A53 Managing projects	10.2	10.2	10.2
A53-p01: Managing projects	10.2	10.2	10.2
A53-p02: Managing incidents	-	-	10.2



A2 - Documents associated to each documented IMS procedure

Procedures	Documents
A13-p01: To plan the strategy	Scope Policy (Annex 1 - M1) Objectives (Annex 2 - M1) Projects Meetings Programme (Annex 3 - M1) Audit Programme (Annex 4 - M1) Infrastructure programme Measurement equipment programme IT programme Questionnaire Programme Meeting Minutes Communications Plan
A14-p01: Determining the internal communications	Communications Plan
A14-p02: Determining the external communications	Communications Plan
A21-p01: Assigning responsibilities	Organizational structure
A21-p02: Determining skills	Job positions (Annex 1 - M2)
A21-p03: Evaluating people	Personal evaluation (Annex 2 - M2)
A21-p04: Planning training	Personal evaluation (Annex 2 - M2) Design of training action (Annex 3 - M2) Training Plan (Annex 4 - M2)
A21-p05: Providing training	Attendance to training action

	<p>Certificate of attendance Certificate of achievement Training Plan (Annex 4 - M2)</p>
A21-p06: Evaluating training	<p>Design of training action (Annex 3 - M2) Evaluation of training action (Annex 5 - M2) Training action report</p>
A21-p07: Managing employee health check-ups	<p>Health check-up protocols Special sensitivity reports Health Check-up Results Fitness certificate Preliminary Employee Health Report Year 20XX</p>
A22-p01: Evaluating suppliers (certifying)	<p>Certified suppliers Certification of suppliers (Annex 6 - M2)</p>
A22-p02: Managing external supplies	<p>Purchasing requirement (Annex 7 - M2) Certified suppliers Supplier offer Purchase order Purchase receipt Purchase evaluation (Annex 8 - M2)</p>
A22-p03: Re-evaluating suppliers	<p>Certified suppliers</p>
A24-p01: Drafting the infrastructure maintenance plan	<p>Infrastructure programme (Annex 9 - M2) Infrastructure programme (Annex 9 - M2)</p>
A24-p03: Drafting the measurement equipment maintenance plan	<p>Measurement equipment programme</p>

	Measurement equipment programme
A24-p05: Managing environmental vectors (e.g. waste)	Waste form Waste management follow-up
A24-p06: Managing the personal protection equipment.	List of PPE PPE Sheet PPE Delivery Record
A25-p01: Drafting the IT maintenance plan	IT programme IT programme
A25-p05: Identifying the documents	Document classification scorecard (Annex 10 - M2) Meeting Minutes
A26-p01: Identifying the applicable legal and regulatory requisites	Legal requirements
A31-p01: Planning production	Sales order (Annex 1 - M3) Manufacturing plan Manufacturing order Purchasing requirement
A32-p01: Managing the Product Catalogue	Product Catalogue (Annex 2 - M3)
A32-p02: Planning design and development	Design stages and review Input elements for design Design verification Design validation
A32-p03: Determining the design input elements	Input elements for design
A32-p04: Controlling design and development	Design stages and review Design verification

	Design validation
A32-p05: Determining design results	Design verification Design validation Product Catalogue (Annex 2 - M3)
A32-p06: Managing design and development changes	-
A33-p01: Providing information about products	Marketing communications plan (Annex 3 - M3)
A33-p02: Addressing consultations (pre-sales)	Customer consultations
A33-p03: Determining requirements (sales)	Product Catalogue (Annex 2 - M3) Sales offer Sales order (Annex 1 - M3) Briefing
A33-p04: Changing requirements	Changes of sales order
A33-p05: Obtaining customer feedback - Complaints	Complaints (Annex 4 - M3)
A33-p06: Obtaining customer feedback - Congratulations	Congratulations
A34-p01: Receiving the raw material	Reception
A34-p02: Manufacturing the product	Manufacturing Control Technical Instructions - Inspecting Technical Instructions - Cutting Technical Instructions - Machining Technical Instructions - Edging Technical Instructions - Finishing Technical Instructions - Assembling Technical Instructions - Packaging

A34-p03: Controlling traceability	Traceability follow up
A35-p01: Delivering the product	Delivery Control Labels Delivery sheet
A41-p05: Drafting the Strategic Analysis Report (SAR)	Strategic Analysis Report Meeting Minutes
A41-p08: Managing Non-Conformities/Incidents	Incident (Annex 1 - M4)
A41-p09: Measuring customer satisfaction	Questionnaire Programme Customer satisfaction questionnaire (Annex 2 - M4) Customer satisfaction report
A41-p10: Drafting the auditing programme	Audit Programme (Annex 3 - M4)
A41-p11: Performing the audits	Audit Plan (Annex 4 - M4) Audit Programme (Annex 3 - M4) Audit Check-List Audit report
A41-p12: Determining and evaluating environmental aspects	Identification and evaluation of environmental aspects Environmental aspect evaluation criteria Significant environmental aspects
A41-p13: Managing emergencies	Emergency plan Action protocol in case of emergency Simulation Report
A41-p14: Identifying dangers and evaluating risks	Risk evaluation Risk evaluation criteria

A41-p15: Evaluating compliance with legal and regulatory requisites	Legal requirements
A42-p01: Evaluating the IMS Performance	IMS Performance Report Indicator File
A43-p02: Revision by management (monthly)	Meeting Programme Meeting Minutes
A43-p03: Revision by management (annual)	Meeting Programme Meeting Minutes
A51-p01: Planning improvement	Scheduling an improvement action Improvement action (Annex 1 - M5)
A52-p01: Managing challenges	-
A53-p01: Managing projects	Improvement action (Annex 1 - M5)
A53-p02: Managing incidents	Incident Risk evaluation

Tables and figures

Figures

Figure 1. The "classic" Process Map.....	6
Figure 2. Example of a visual representation of an IDEF model of an organization (source: Enric Brull).....	7
Figure 3. Visual representation of the A0 process in an organization.	8
Figure 4. Example of an organization's Node Index.....	9
Figure 5. Example of a procedural task	11
Figure 6. Examples of types of indicators associated to a process.....	13
Figure 7. Example of automatic process implementation	15
Figure 8. Sources to manage knowledge in an organization	16
Figure 9. Improvement process framework in an organization	17



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