



FINAL DRAFT BAHAMAS NATIONAL STANDARD

**QUALITY MANAGEMENT — CUSTOMER SATISFACTION — GUIDELINES FOR
MONITORING AND MEASURING**

FDBNS ISO 9004:2018

Bahamas Bureau of Standards & Quality (BBSQ)
Source River Centre, 1000 Bacardi Road
P.O. Box N- 4843, Nassau, New Providence, Bahamas
Tel: (242) 362-1748 thru 55
Fax: (242) 362-9172
Email: standards@bbsq.bs
Website: www.bbsq.bs



© BBSQ – All rights reserved. No part of this publication is to be reproduced without the prior written consent of BBSQ

NOTICE

Standards are subjected to periodic review.

ISO 9004:2018(E)

The next amendment will be sent without charge if you return the self-addressed label. If we do not receive this label we have no record that you wish to be kept up-to-date. Please note amendments are not exclusive of a revision of the document.

Our address:

Bahamas Bureau of Standards & Quality (BBSQ)

Source River Centre

1000 Bacardi Road

P.O. Box N- 4843

Nassau, New Providence

Bahamas

----- (cut along the perforated line) -----

-

BNSXX:20XX

NAME: _____

COMPANY/DESIGNATION:

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Contents	Page
BBSQ Foreword	vii
Foreword	viii
Introduction.....	ix
Figure 1 — Representation of the structure of this document.....	x
1 Scope	1
2 Normative references	1
3 Terms and definitions.....	1
4 Quality of an organization and sustained success.....	1
4.1 Quality of an organization.....	1
Figure 2 — Examples of interested parties and their needs and expectations.....	2
4.2 Managing for the sustained success of an organization	2
5 Context of an organization	3
5.1 General.....	3
5.2 Relevant interested parties	3
5.3 External and internal issues.....	4
6 Identity of an organization	5
6.1 General.....	5
6.2 Mission, vision, values and culture	5
7 Leadership	5
7.1 General.....	5
7.2 Policy and strategy.....	6
Table 1 — Examples of actions to consider when addressing competitive factors.....	6
7.3 Objectives.....	8
7.4 Communication.....	8
8 Process management.....	8
8.1 General.....	8
8.2 Determination of processes.....	9
Figure 3 — Schematic representation of the elements of a single process	9
8.3 Responsibility and authority for processes.....	10
8.4 Managing processes.....	10
9 Resource management.....	12
9.1 General.....	12
9.2 People.....	12
9.2.1 General.....	12
9.2.2 Engagement of people.....	13
9.2.3 Empowerment and motivation of people	13
9.2.4 Competence of people.....	13
9.3 Organizational knowledge.....	14
9.4 Technology.....	14
9.5 Infrastructure and work environment.....	15
9.5.1 General.....	15
9.5.2 Infrastructure	15
9.5.3 Work environment	15
9.6 Externally provided resources	16
9.7 Natural resources.....	16
10 Analysis and evaluation of an organization's performance.....	17

10.1	General	17
10.2	Performance indicators	17
Figure 4 — Steps for using performance indicators		17
10.3	Performance analysis	18
10.4	Performance evaluation	19
10.5	Internal audit.....	20
10.6	Self-assessment.....	21
10.7	Reviews	21
11	Improvement, learning and innovation	22
11.1	General.....	22
11.2	Improvement	22
11.3	Learning.....	23
11.4	Innovation.....	23
11.4.1	General.....	23
11.4.2	Application.....	24
11.4.3	Timing and risk.....	24
Annex A (informative) Self-assessment tool.....		25
A.1	General	25
A.2	Maturity model.....	25
Table A.1 — Generic model for self-assessment elements and criteria related to maturity levels		26
A.3	Self-assessment of detailed elements	26
A.4	Using the self-assessment tools.....	26
Table A.2 — Self-assessment of the detailed elements of 5.2		28
Table A.3 — Self-assessment of the detailed elements of 5.3		29
Table A.4 — Self-assessment of the detailed elements of 6.2		30
Table A.5 — Self-assessment of the detailed elements of 7.1.....		31
Table A.6 — Self-assessment of the detailed elements of 7.2.....		32
Table A.7 — Self-assessment of the detailed elements of 7.3.....		33
Table A.8 — Self-assessment of the detailed elements of 7.4.....		34
Table A.9 — Self-assessment of the detailed elements of 8.1.....		35
Table A.10 — Self-assessment of the detailed elements of 8.2		36
Table A.11 — Self-assessment of the detailed elements of 8.3		37
Table A.12 — Self-assessment of the detailed elements of 8.4 (alignment/linkage)		38
Table A.13 — Self-assessment of the detailed elements of 8.4 (attaining a higher level of performance).....		39
Table A.14 — Self-assessment of the detailed elements of 8.4 (maintaining the level)		40
Table A.15 — Self-assessment of the detailed elements of 9.1		40
Table A.16 — Self-assessment of the detailed elements of 9.2		42
Table A.17 — Self-assessment of the detailed elements of 9.3		43
Table A.18 — Self-assessment of the detailed elements of 9.4		44
Table A.19 — Self-assessment of the detailed elements of 9.5		45
Table A.21 — Self-assessment of the detailed elements of 9.7		47

Table A.22 — Self-assessment of the detailed elements of 10.1.....	48
Table A.23 — Self-assessment of the detailed elements of 10.2.....	49
Table A.24 — Self-assessment of the detailed elements of 10.3.....	50
Table A.25 — Self-assessment of the detailed elements of 10.4.....	51
Table A.26 — Self-assessment of the detailed elements of 10.5.....	52
Table A.27 — Self-assessment of the detailed elements of 10.6.....	53
Table A.28 — Self-assessment of the detailed elements of 10.7.....	54
Table A.29 — Self-assessment of the detailed elements of 11.1.....	55
Table A.30 — Self-assessment of the detailed elements of 11.2.....	56
Table A.31 — Self-assessment of the detailed elements of 11.3.....	57
Table A.32 — Self-assessment of the detailed elements of 11.4.....	58
Bibliography.....	59

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

BBSQ Foreword

"This national standard is identical to the English version of International Standard ISO 9004:2009, *Quality management — Customer satisfaction — Guidelines for monitoring and measuring*. The national committee responsible for this standard is Technical Committee 9 Management Systems. This standard contains requirements that are relevant for The Bahamas.

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. ISO shall not be held responsible for identifying any or all such patent rights. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 176, *Quality management and quality assurance*, Subcommittee 2, *Quality systems*.

This fourth edition cancels and replaces the third edition (ISO 9004:2009), which has been technically revised. The main changes compared to the previous edition are as follows:

- alignment with the concepts and terminology of ISO 9000:2015 and ISO 9001:2015;
- focus on the concept of “quality of an organization”;
- focus of the concept of “identity of an organization”.

Introduction

This document provides guidance for organizations to achieve sustained success in a complex, demanding and ever-changing environment, with reference to the quality management principles described in ISO 9000:2015. Where they are applied collectively, quality management principles can provide a unifying basis for an organization's values and strategies.

While ISO 9001:2015 focuses on providing confidence in an organization's products and services, this document focuses on providing confidence in the organization's ability to achieve sustained success.

Top management's focus on the organization's ability to meet the needs and expectations of customers and other relevant interested parties provides confidence in achieving sustained success. This document addresses the systematic improvement of the organization's overall performance. It includes the planning, implementation, analysis, evaluation and improvement of an effective and efficient management system.

Factors affecting an organization's success continually emerge, evolve, increase or diminish over the years, and adapting to these changes is important for sustained success. Examples include social responsibility, environmental and cultural factors, in addition to those that might have been previously considered, such as efficiency, quality and agility; taken together, these factors are part of the organization's context.

The ability to achieve sustained success is enhanced by managers at all levels learning about and understanding the organization's evolving context. Improvement and innovation also support sustained success.

This document promotes self-assessment and provides a self-assessment tool for reviewing the extent to which the organization has adopted the concepts in this document (see Annex A).

A representation of the structure of this document, incorporating the elements essential to achieve sustained success of an organization as covered in this document, is presented in Figure 1.

FDBNS FOR PUBLIC COMMENTS ONLY APRIL-JUNE 2019

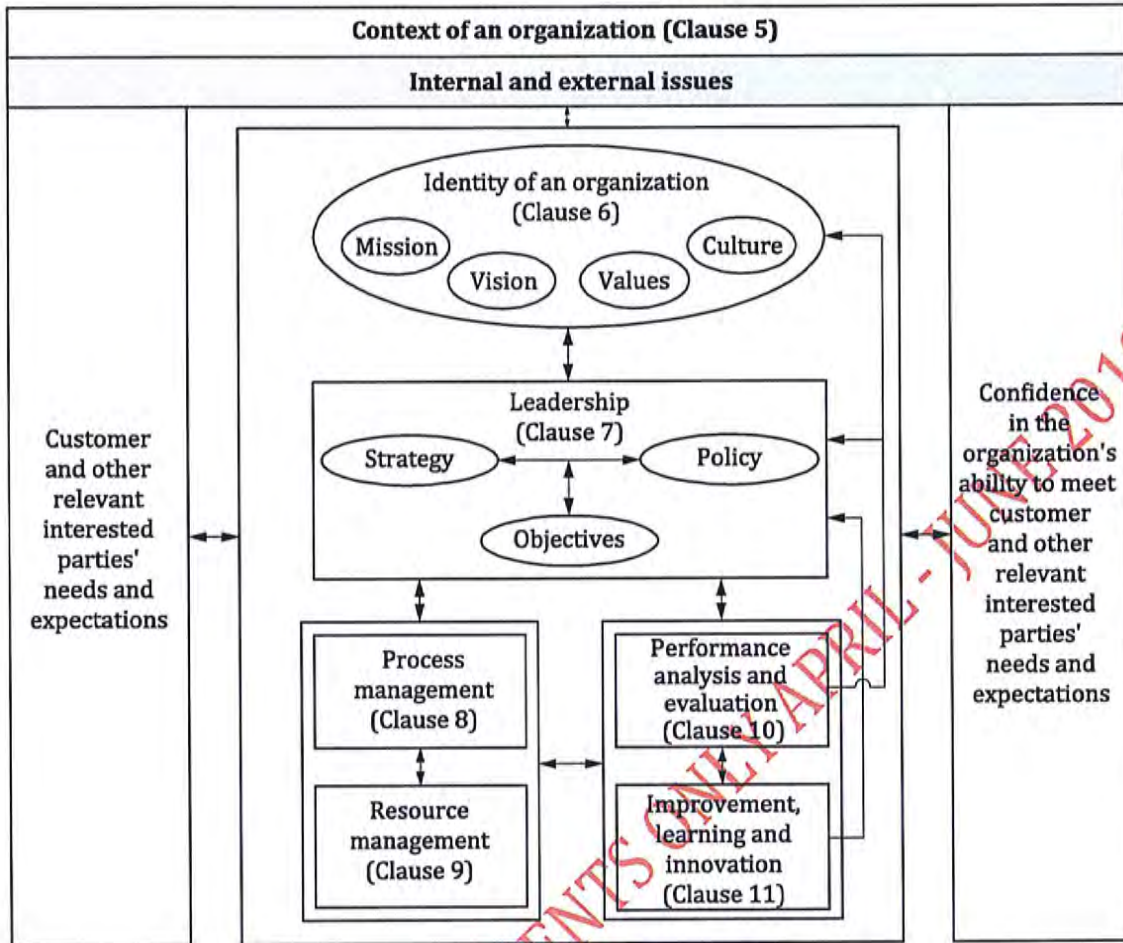


Figure 1 — Representation of the structure of this document

FDBNS FOR PUBLIC COMMENTS CALL APRIL-JUNE 2019

Quality management — Quality of an organization — Guidance to achieve sustained success

1 Scope

This document gives guidelines for enhancing an organization's ability to achieve sustained success. This guidance is consistent with the quality management principles given in ISO 9000:2015.

This document provides a self-assessment tool to review the extent to which the organization has adopted the concepts in this document.

This document is applicable to any organization, regardless of its size, type and activity.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 9000:2015, *Quality management systems — Fundamentals and vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 9000:2015 apply.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- ISO Online browsing platform: available at <https://www.iso.org/obp>
- IEC Electropedia: available at <http://www.electropedia.org/>

4 Quality of an organization and sustained success

4.1 Quality of an organization

The quality of an organization is the degree to which the inherent characteristics of the organization fulfil the needs and expectations of its customers and other interested parties, in order to achieve sustained success. It is up to the organization to determine what is relevant to achieve sustained success.

NOTE 1 The term "quality of an organization" is derived from the definition of "quality" given in ISO 9000:2015, 3.6.2 ("the degree to which a set of inherent characteristics of an object fulfils requirements"), and from the definition of "requirement" given in ISO 9000:2015, 3.6.4, ("needs or expectations that are stated, generally implied or obligatory"). It is distinct from the purpose of ISO 9001, which focuses on the quality of products and services in order to give confidence in the ability of an organization to provide conforming products and services and to enhance its customers' satisfaction.

NOTE 2 All references to "needs and expectations" mean "relevant needs and expectations".

NOTE 3 All references to "interested parties" mean "relevant interested parties".

NOTE 4 All references to "interested parties" include customers.

The organization should go beyond the quality of its products and services and the needs and expectations of its customers. To achieve sustained success, the organization should focus on anticipating and meeting the needs and expectations of its interested parties, with the intent of enhancing their satisfaction and overall experience.

The organization should apply all of the quality management principles (see ISO 9000:2015) to achieve sustained success. Particular attention should be given to the principles of “customer focus” and “relationship management” to meet the different needs and expectations of interested parties.

The needs and expectations of individual interested parties can be different, aligned to, or in conflict with those of other interested parties, or can change quickly. The means by which the needs and expectations of interested parties are expressed and met can take a wide variety of forms, for example co-operation, negotiation, outsourcing, or by terminating an activity; consequently, the organization should give consideration to the interrelationships of its interested parties when addressing their needs and expectations.

The composition of interested parties can differ significantly over time and between organizations, industries, cultures and nations; Figure 2 provides examples of interested parties and their needs and expectations.

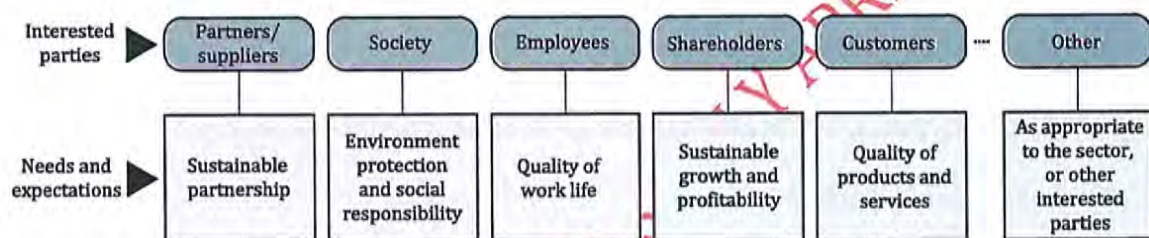


Figure 2 — Examples of interested parties and their needs and expectations

4.2 Managing for the sustained success of an organization

4.2.1 The quality of an organization is enhanced and sustained success can be achieved by consistently meeting the needs and expectations of its interested parties over the long term. Short- and medium-term objectives should support this long-term strategy.

As the context of an organization will be ever-changing, to achieve sustained success top management should:

- regularly monitor, analyse, evaluate and review the organization’s context in order to identify all interested parties, determine their needs and expectations and their individual potential impacts on the organization’s performance;
- determine, implement and communicate the organization’s mission, vision and values, and promote an aligned culture;
- determine short- and long-term risks and opportunities;
- determine, implement and communicate the organization’s policies, strategy and objectives;
- determine the relevant processes and manage them so that they function within a coherent system;
- manage the organization’s resources to enable its processes to achieve their intended results;
- monitor, analyse, evaluate and review the organization’s performance;

- h) establish a process for improvement, learning and innovation in order to support the organization's ability to respond to changes in the context of the organization.

4.2.2 Consideration of the needs and expectations of interested parties can enable the organization:

- a) to achieve objectives effectively and efficiently;
- b) to eliminate conflicting responsibilities and relationships;
- c) to harmonize and optimize practices;
- d) to create consistency;
- e) to improve communication;
- f) to facilitate training, learning and personal development;
- g) to facilitate focus on the most important characteristics of the organization;
- h) to manage risks and opportunities to its brand or reputation;
- i) to acquire and share knowledge.

5 Context of an organization

5.1 General

Understanding the context of an organization is a process that determines factors which influence the organization's ability to achieve sustained success. There are key factors to consider when determining the context of an organization:

- a) interested parties;
- b) external issues;
- c) internal issues.

5.2 Relevant interested parties

Interested parties are those that can affect, be affected by, or perceive themselves to be affected by a decision or activity of the organization. The organization should determine which interested parties are relevant. These relevant interested parties can be both external and internal, including customers, and can impact the organization's ability to achieve sustained success.

The organization should determine which interested parties:

- a) are a risk to its sustained success if their relevant needs and expectations are not met;
- b) can provide opportunities to enhance its sustained success.

Once the relevant interested parties are determined, the organization should:

- identify their relevant needs and expectations, determining the ones that should be addressed;
- establish the necessary processes to fulfil the needs and expectations of the interested parties.

The organization should consider how to establish ongoing relationships with interested parties for benefits such as improved performance, common understanding of objectives and values, and enhanced stability.

5.3 External and internal issues

5.3.1 External issues are factors that exist outside of the organization that can affect the organization's ability to achieve sustained success, such as:

- a) statutory and regulatory requirements;
- b) sector-specific requirements and agreements;
- c) competition;
- d) globalization;
- e) social, economic, political and cultural factors;
- f) innovations and advances in technology;
- g) natural environment.

5.3.2 Internal issues are factors that exist within the organization itself that can affect the organization's ability to achieve sustained success, such as:

- a) size and complexity;
- b) activities and associated processes;
- c) strategy;
- d) type of products and services;
- e) performance;
- f) resources;
- g) levels of competence and organizational knowledge;
- h) maturity;
- i) innovation.

5.3.3 When considering external and internal issues, the organization should take into account relevant information from the past, its current situation and its strategic direction.

The organization should determine which external and internal issues could result in risks to its sustained success or opportunities to enhance its sustained success.

Based on the determination of these issues, top management should decide which of these risks and opportunities should be addressed and initiate the establishment, implementation and maintenance of the necessary processes.

The organization should consider how to establish, implement and maintain a process for monitoring, reviewing and evaluating external and internal issues, with consideration of any consequences to be acted on (see 7.2).

6 Identity of an organization

6.1 General

An organization is defined by its identity and context. The identity of an organization is determined by its characteristics, based on its mission, vision, values and culture.

Mission, vision, values and culture are interdependent and the relationship between them should be recognized as dynamic.

6.2 Mission, vision, values and culture

The identity of an organization includes its:

- a) mission: the organization's purpose for existing;
- b) vision: aspiration of what an organization would like to become;
- c) values: principles and/or thinking patterns intended to play a role in shaping the organization's culture and to determine what is important to the organization, in support of the mission and vision;
- d) culture: beliefs, history, ethics, observed behaviour and attitudes that are interrelated with the identity of the organization.

It is essential that the organization's culture aligns with its mission, vision, and values. Top management should ensure that the context of the organization is considered when determining its mission, vision and values. This should include an understanding of its existing culture and assessing the need to change the culture. The strategic direction of the organization and its policy should be aligned with these identity elements.

Top management should review the mission, vision, values and culture at planned intervals and whenever the context of the organization changes. This review should consider external and internal issues that can have an effect on the organization's ability to achieve sustained success. When changes are made to any of the identity elements, they should be communicated within the organization and to interested parties, as appropriate.

7 Leadership

7.1 General

7.1.1 Top management, through its leadership, should:

- a) promote the adoption of the mission, vision, values and culture in a way that is concise and easy to understand, to achieve unity of purpose;
- b) create an internal environment in which people are engaged and committed to the achievement of the organization's objectives;
- c) encourage and support managers at appropriate levels to promote and maintain the unity of purpose and direction as established by the top management.

7.1.2 To achieve sustained success, top management should demonstrate leadership and commitment within the organization, by:

- a) establishing the organization's identity (see Clause 6);
- b) promoting a culture of trust and integrity;
- c) establishing and maintaining teamwork;
- d) providing people with the necessary resources, training and authority to act with accountability;
- e) promoting shared values, fairness and ethical behaviour so that these are sustained at all levels of the organization;
- f) establishing and maintaining an organizational structure to enhance competitiveness, where applicable;
- g) individually and collectively reinforcing the organization's values;
- h) communicating achieved successes externally and internally, as appropriate;
- i) establishing a basis for effective communication with people in the organization, discussing issues that have general impact, including financial impact, where applicable;
- j) supporting leadership development at all levels of the organization.

7.2 Policy and strategy

Top management should set out the organization's intentions and direction in the form of the organization's policy, to address aspects such as compliance, quality, environment, energy, employment, occupational health and safety, quality of work life, innovation, security, privacy, data protection and customer experience. Policy statements should include commitments to satisfy the needs and expectations of interested parties and to promote improvement.

When establishing the strategy, top management should either apply a recognized and appropriate model available in the market, or design or implement an organization-specific customized model. Once chosen, it is crucial to maintain the stability of the model as the solid foundation and reference for managing the organization.

Strategy should reflect the identity of the organization, its context and long-term perspective. All short- and medium-term objectives should be aligned accordingly (see 7.3).

Top management should make strategic decisions regarding competitive factors (see Table 1).

These policy and strategy decisions should be reviewed for continued suitability. Any changes to the external and internal issues, as well as any new risks and opportunities, should be addressed.

The organization's policies and strategy constitute the basis to establish process management (see Clause 8).

Table 1 — Examples of actions to consider when addressing competitive factors

Competitive factors	Actions to consider
A Products and services	— focusing on current and potential customers and potential markets for products and services

	<ul style="list-style-type: none"> — offering standard products and services or designs specific to customer requirements — realizing the advantages of being first to market or being a follower — scaling production from one-off to mass production, as appropriate — dealing with short innovation cycles or a stable long-term customer demand — managing quality requirements
B People	<ul style="list-style-type: none"> — recognizing demographic development and changing values — considering diversity — cultivating an image as an attractive employer — determining the desired competence and experience of people to hire — considering appropriate approaches to recruitment, competence development, retention, and leave management — addressing capacity flexibility by considering permanent versus fixed-term contracts — considering full time versus part time or temporary employment, as well as the balance between them
C Organizational knowledge and technology	<ul style="list-style-type: none"> — applying currently available knowledge and technology to new opportunities — identifying the need for new knowledge and technology — determining when this knowledge and technology needs to be available and how to apply it within the organization — determining if this should be developed internally or acquired externally
D Partners	<ul style="list-style-type: none"> — determining potential partners — driving joint technology development with external providers and competitors — developing customized products and services in joint undertakings with customers — co-operating with the local community, academia, public authorities and associations
E Processes	<ul style="list-style-type: none"> — deciding whether process management will be centralized, decentralized, integrated or non-integrated, or a hybrid approach regarding determination, establishment, maintenance, control and improvement of processes, including the assignment of roles and responsibilities — determining necessary information and communications technology (ICT) infrastructure (e.g. proprietary, customized or standard solutions)
F Place	<ul style="list-style-type: none"> — considering local, regional and global presence

	<ul style="list-style-type: none"> — considering virtual presence and use of social media — considering the use of virtual decentralized project teams
G Pricing	<ul style="list-style-type: none"> — establishing price position (e.g. low versus premium pricing strategy) — determining prices by using an auction/bidding approach

7.3 Objectives

Top management should demonstrate leadership in the organization by defining and maintaining the organization's objectives based on its policies and strategy, as well as by deploying the objectives at relevant functions, levels and processes.

Objectives should be defined for the short and long term and should be clearly understandable. Objectives should be quantified where possible. When determining the objectives, top management should consider:

- a) to what extent the organization is aiming to be recognized by interested parties as:
 - 1) a leader with respect to competitive factors (see 7.2) emphasizing the organization's capability;
 - 2) having a positive impact on economic, environmental and social conditions around it;
- b) the degree of the organization's and its people's engagement in society beyond immediate business-related topics (e.g. in national and international organizations, such as public administration, associations and standardization bodies).

When deploying the objectives, top management should encourage discussions for alignment between different functions and levels of the organization.

7.4 Communication

The effective communication of policies and strategy, with relevant objectives, is essential to support the sustained success of the organization.

Such communication should be meaningful, timely and continual. Communication should include a feedback mechanism and incorporate provisions to proactively address changes in the organization's context.

The organization's communication process should operate both vertically and horizontally and should be tailored to the differing needs of its recipients. For example, the same information can be conveyed in one way to people within the organization and in a different way to interested parties.

8 Process management

8.1 General

Organizations deliver value through activities connected within a network of processes. Processes often cross boundaries of functions within the organization. Consistent and predictable results are achieved more effectively and efficiently when the network of processes functions as a coherent system.

Processes are specific to an organization and vary depending on the type, size and level of maturity of the organization. The activities within each process should be determined and adapted to the size and distinctive features of the organization.

In order to achieve its objectives, the organization should ensure that all its processes are managed proactively, including externally provided processes, to ensure that they are effective and efficient. It is

important to optimize the balance between the different purposes and specific objectives of the processes, in alignment with the organization's objectives.

This can be facilitated by adopting a "process approach" that includes establishing processes, interdependencies, constraints and shared resources.

NOTE For further information on the "process approach", see the related quality management principles in ISO 9000:2015, and the "ISO 9001:2008 Introduction and Support Package" document *Guidance on the concept, content and use of the process approach for management systems*, available from: <https://committee.iso.org/tc176sc2>.

8.2 Determination of processes

8.2.1 The organization should determine the processes and their interactions necessary for providing outputs that meet the needs and expectations of interested parties, on an ongoing basis. Figure 3 gives a schematic representation of a process.

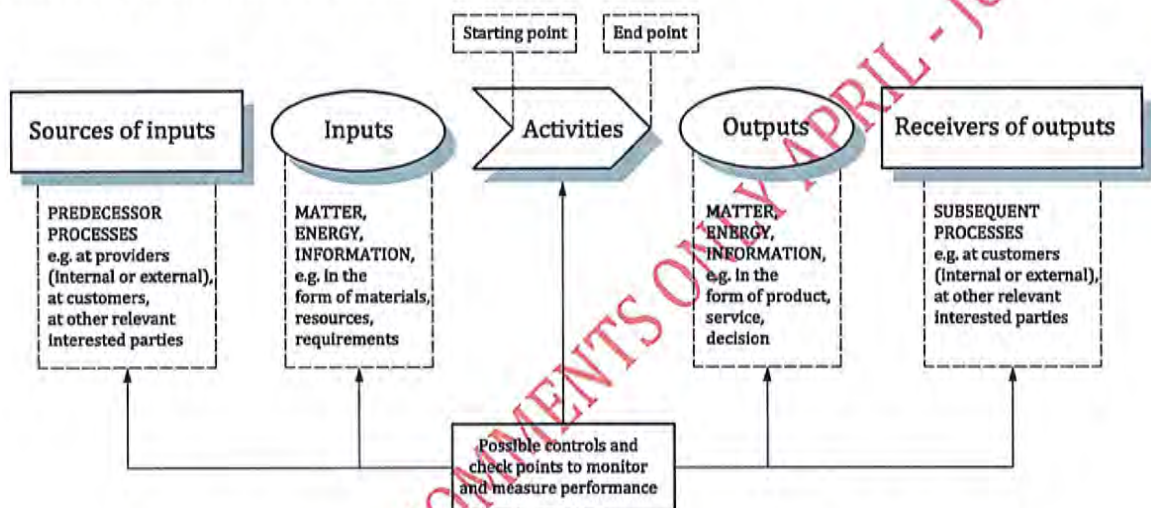


Figure 3 — Schematic representation of the elements of a single process

Processes and their interactions should be determined in accordance with the organization's policies, strategy and objectives, and should address areas such as:

- operations related to products and services;
- meeting the needs and expectations of interested parties;
- the provision of resources;
- managerial activities, including monitoring, measuring, analysis, review, improvement, learning and innovation.

8.2.2 In determining its processes and their interactions, the organization should give consideration, as appropriate, to:

- the purpose of the process;
- the objectives to be achieved and related performance indicators;

- c) the outputs to be provided;
- d) the needs and expectations of interested parties, and their changes;
- e) changes in operations, markets and technologies;
- f) the impacts of the processes;
- g) the inputs, resources and information needed, and their availability;
- h) the activities that need to be implemented and methods that can be used;
- i) constraints for the process;
- j) risks and opportunities.

8.3 Responsibility and authority for processes

For each process, the organization should appoint a person or a team (often referred to as the “process owner”), depending on the nature of the process and the organization’s culture, with defined responsibilities and authorities to determine, maintain, control and improve the process and its interaction with other processes it impacts and those that have impact on it. The organization should ensure that the responsibilities, authorities and roles of process owners are recognized throughout the organization and that the people associated with the individual processes have the competences needed for the tasks and activities involved.

8.4 Managing processes

8.4.1 To manage its processes effectively and efficiently, the organization should:

- a) manage the processes and their interactions, including externally provided processes, as a system to enhance alignment/linkage between the processes;
- b) visualize the network of processes, their sequence and interactions in a graphic (e.g. process map, diagrams) in order to understand the roles of each process in the system and its effects on the performance of the system;
- c) determine criteria for the outputs of processes, evaluate the capability and performance of processes by comparing the outputs with the criteria, and plan actions to improve the processes when they are not effectively achieving the performance expected by the system;
- d) assess the risks and opportunities associated with the processes and implement any actions that are necessary in order to prevent, detect and mitigate undesired events, including risks such as:
 - 1) human factors (e.g. shortage of knowledge and skills, rule violations, human errors);
 - 2) inadequate capability, deteriorations and breakdowns of equipment;
 - 3) design and development failure;
 - 4) unplanned changes in incoming materials and services;
 - 5) uncontrolled variation in the environment for the operation of processes;

- 6) unexpected changes in the needs and expectations of interested parties, including market demand;
- e) review the processes and their interrelationships on a regular basis and take suitable actions for control and improvement, to ensure they continue to be effective and support the sustained success of the organization.

8.4.2 Processes should operate together within a coherent management system. Some processes will relate to the overall management system and some will additionally relate to a specific managerial aspect, such as:

- a) the quality of products and services, including cost, quantity and delivery (e.g. ISO 9001);
- b) health, safety, security (e.g. ISO 45001, ISO/IEC 27001);
- c) environment, energy (e.g. ISO 14001, ISO 50001);
- d) social responsibility, anti-bribery, compliance (e.g. ISO 26000, ISO 37001, ISO 19600);
- e) business continuity, resilience (e.g. ISO 22301, ISO 22316).

8.4.3 To attain a higher level of performance, the processes and their interactions should be continually improved according to the organization's policies, strategy and objectives (see 7.2 and 7.3), including consideration of the need to develop or acquire new technologies, or to develop new products and services or their features, for added value.

The organization should motivate people to engage in improvement activities and propose opportunities for improvement in the processes in which they are involved.

The organization should regularly review the achievement of objectives for the improvement of processes and their interactions, the progress of action plans, and the effects on the organization's policies, objectives and strategies. It should take any necessary corrective actions, or other appropriate actions, when gaps are identified between the planned and actual activities.

8.4.4 To maintain the level of performance attained, processes should be operated under controlled conditions, regardless of any planned and unplanned changes. The organization should determine what procedures (if any) are needed to manage a process, including the criteria for process outputs and operational conditions, to ensure conformity with the criteria.

When procedures are applied, in order to ensure that they are followed by people involved in the operation of the process, the organization should ensure that:

- a) a system is established to define the knowledge and skills needed for processes and evaluate the knowledge and skills of the process operators;
- b) risks in the procedures are identified, assessed and reduced by improving the procedures (e.g. making it difficult to make errors or not allowing progression to the next process if an error occurs);
- c) resources necessary for people to follow the procedures are made available;
- d) people have the knowledge and skills needed for following the procedures;
- e) people understand the impacts of not following the procedures (e.g. by using examples of experienced undesired events) and managers at appropriate levels take the actions that are necessary whenever a procedure is not followed;

- f) consideration is given to learning, training, motivation and prevention of human error.

8.4.5 The organization should monitor its processes on a regular basis to detect deviations, and should identify and take appropriate actions when necessary without delay. Deviations are mainly caused by changes in equipment, method, material, measurement, environment and people for the operation of processes. The organization should determine check points and related performance indicators that will be effective and efficient in detecting deviations.

9 Resource management

9.1 General

Resources support the operation of all processes in an organization and are critical for ensuring effective and efficient performance and its sustained success.

The organization should determine and manage the resources needed for the achievement of its objectives, taking into account the associated risks and opportunities and their potential effects.

Examples of key resources include:

- a) financial resources;
- b) people;
- c) organizational knowledge;
- d) technology;
- e) infrastructure, such as equipment, facilities, energy and utilities;
- f) the environment for the organization's processes;
- g) the materials needed for the provision of products and services;
- h) information;
- i) resources provided externally, including subsidiaries, partnerships and alliances;
- j) natural resources.

The organization should implement sufficient control over its processes to achieve efficient and effective use of its resources. Depending on the nature and complexity of the organization, some of the resources will have different impacts on the sustained success of the organization.

When considering future activities, the organization should take into account the accessibility and suitability of resources, including externally provided resources. The organization should frequently evaluate its existing use of resources to determine opportunities for improving their use, optimizing processes, and implementing new technologies to reduce risks.

9.2 People

9.2.1 General

Competent, engaged, empowered and motivated people are a key resource. The organization should develop and implement processes to attract and retain people who have the current or potential competences and availability to contribute fully to the organization. The managing of people should be

performed through a planned, transparent, ethical and socially responsible approach at all levels throughout the organization.

9.2.2 Engagement of people

Engagement of people enhances the organization's ability to create and deliver value for interested parties. The organization should establish and maintain processes for engagement of its people. Managers at all levels should encourage people to be involved in improving performance and meeting the organization's objectives.

To enhance the engagement of its people, the organization should consider activities such as:

- a) developing a process to share knowledge;
- b) making use of its people's competence;
- c) establishing a skills qualification system and career planning to promote personal development;
- d) continually reviewing their level of satisfaction, relevant needs and expectations;
- e) providing opportunities for mentoring and coaching;
- f) promoting team improvement activities.

9.2.3 Empowerment and motivation of people

Empowered and motivated people at all levels throughout the organization are essential to enhance the organization's ability to create and deliver value. Empowerment enhances the motivation of people to take responsibility for their work and its results. This can be achieved by providing people with the necessary information, authority and freedom to make decisions related to their own work. Managers at all levels should motivate people to understand the significance and importance of their responsibilities and activities in relation to creating value for interested parties. To enhance the empowerment and motivation of people, managers at all levels should:

- a) define clear objectives (aligned with the organization's objectives), delegate authority and responsibility, and create a work environment in which people control their own work and decision making;
- b) introduce an appropriate recognition system, based on the evaluation of people's accomplishments (both individually and in teams);
- c) provide incentives for people to act with initiative (both individually and in teams), as well as recognizing good performance, rewarding results and celebrating the achievement of objectives.

9.2.4 Competence of people

A process should be established and maintained to assist the organization in determining, developing, evaluating and improving the competence of people at all levels. The process should follow steps such as:

- a) determining and analysing the personal competencies needed by the organization in accordance with its identity (mission, vision, values and culture), strategy, policies and objectives;
- b) determining the current competence at group level and at individual level, as well as the gaps between what is available and what is currently needed, or could be needed in the future;
- c) implementing actions to improve and acquire competence, as required;

- d) improving and maintaining competence that has been acquired;
- e) reviewing and evaluating the effectiveness of actions taken to confirm that the necessary competence has been acquired.

9.3 Organizational knowledge

9.3.1 Organizational knowledge can be based on external or internal sources. Top management should:

- a) recognize knowledge as an intellectual asset and manage it as an essential element of the organization's sustained success;
- b) consider the knowledge required to support the short- and long-term needs of the organization, including succession planning;
- c) assess how the organization's knowledge is identified, captured, analysed, retrieved, maintained and protected.

9.3.2 When defining how to determine, maintain and protect knowledge, the organization should develop processes to address:

- a) lessons learned from failures and successful projects;
- b) explicit and tacit knowledge that exists within the organization, including the knowledge, insights and experience of its people;
- c) determining the need to acquire knowledge from interested parties as part of the organization's strategy (see 9.6);
- d) confirming the effective distribution and understanding of information, throughout the life cycle(s) of the organization's products and services;
- e) managing documented information and its use;
- f) managing intellectual property.

9.4 Technology

Top management should consider technological developments, both existing and emerging, that can have a significant impact on the organization's performance in processes related to product and service provision, marketing, competitive advantage, agility and interaction with interested parties. The organization should implement processes for detecting technological developments and innovations by considering:

- a) the current levels, and emerging trends of technology, both within and external to the organization;
- b) the financial resources needed to adopt the technological changes, or to acquire another organization's technological capabilities, and the benefits of such changes;
- c) the organizational knowledge and capability to adapt to the technological changes;
- d) the risks and opportunities;
- e) the market environment.

9.5 Infrastructure and work environment

9.5.1 General

Infrastructure and work environment are key to the effective and efficient operation of all processes in the organization. The organization should determine what is needed and coordinate how these resources will be allocated, provided, measured or monitored, optimized, maintained and protected.

The organization should periodically evaluate the suitability of the infrastructure and work environment of all related processes to achieve the desired performance and the organization's objectives.

9.5.2 Infrastructure

In managing its infrastructure, the organization should give appropriate consideration to factors such as:

- a) the dependability (including consideration of availability, reliability, maintainability and maintenance support, as applicable, including safety and security);
- b) the infrastructure elements needed for the provision of processes, products and services;
- c) the efficiency, capacity and investment required;
- d) the impact of the infrastructure.

9.5.3 Work environment

In determining a suitable work environment, the organization should give appropriate consideration to factors (or a combination of factors) such as:

- a) physical characteristics such as heat, humidity, light, airflow, hygiene, cleanliness and noise;
- b) ergonomically designed work stations and equipment;
- c) psychological aspects;
- d) encouraging personal growth, learning, knowledge transfer and teamwork;
- e) creative work methods and opportunities for greater involvement, to realize the potential of people in the organization;
- f) health and safety rules and guidance, as well as the use of protective equipment;
- g) workplace location;
- h) facilities for people in the organization;
- i) optimization of resources.

The organization's work environment should encourage productivity, creativity and well-being for the people working in or visiting its premises (e.g. customers, external providers, partners). In addition, depending on its nature, the organization should verify that its work environment complies with applicable requirements and addresses applicable standards (such as those for environmental and occupational health and safety management).

9.6 Externally provided resources

Organizations procure externally supplied resources from a variety of providers. As these resources can impact both the organization and its interested parties, it is essential that its relationships with external providers and partners are managed effectively. The organization and its external providers or partners are interdependent. The organization should seek to establish relationships that enhance the capabilities of itself and its providers or partners to create value in a manner that is mutually beneficial to all involved.

The organization should consider partnering if external providers have knowledge that the organization does not have, or to share the risks and opportunities associated with its projects (and the resulting profits or losses). Partners can be external providers of processes, products or services, technological and financial institutions, governmental and non-governmental organizations, or other interested parties.

The managing of external providers should take into account the risks and opportunities associated with:

- a) internal facilities or capacity;
- b) the technical capability to fulfil the requirements for products or services;
- c) the availability of qualified resources;
- d) the type and extent of controls needed for external providers;
- e) business continuity and supply chain aspects (e.g. high dependability on a single or limited number of providers);
- f) environmental, sustainability and social responsibility aspects.

In order to establish mutually beneficial relationships and to enhance the abilities of external providers and partners for managing activities, processes and systems, the organization should:

- share its mission and vision (and possibly its values and culture) with them;
- provide any necessary support (in terms of resources or knowledge).

9.7 Natural resources

The organization should recognize its responsibility to society and should act based on this recognition. The responsibility includes several aspects, such as natural resources and the environment.

In terms of managing resources, the natural resources consumed by the organization in the provision of products and services are a strategic issue affecting its sustained success. The organization should address how to determine, obtain, maintain, protect and use essential resources such as water, soil, energy or raw materials.

The organization should address both the current and future use of natural resources required by its processes, as well as the impact of the use of natural resources related to the life cycle of its products and services. This should also be aligned with the organization's strategy.

Good practices for managing natural resources for sustained success include:

- a) treating them as a strategic business matter;
- b) being aware of new trends and technologies on their efficient use, and on the expectations of interested parties;
- c) monitoring their availability and determining the potential risks and opportunities on their use;

- d) defining future markets, products and services and the impact on their use throughout the life cycle;
- e) implementing best practices in their current application and use;
- f) improving the actual use and minimizing the potential undesirable impact of their use.

10 Analysis and evaluation of an organization's performance

10.1 General

The organization should establish a systematic approach to collect, analyse and review available information. Based on the results, the organization should use the information to update its understanding of its context, policies, strategy and objectives as needed, while also promoting improvement, learning and innovation activities.

The available information should include data on:

- a) the organization's performance (see 10.2, 10.3 and 10.4);
- b) the status of the organization's internal activities and resources, which can be understood through internal audits or self-assessment (see 10.5 and 10.6);
- c) changes in the organization's external and internal issues and the needs and expectations of the interested parties.

10.2 Performance indicators

10.2.1 The organization should assess its progress in achieving its planned results against its mission, vision, policies, strategy and objectives, at all levels and in all relevant processes and functions. A measurement and analysis process should be used to monitor this progress, to gather and provide the information necessary for performance evaluations and effective decision making.

The selection of appropriate performance indicators and monitoring methods is critical for effective measurement and analysis of an organization. Figure 4 shows steps for using performance indicators.

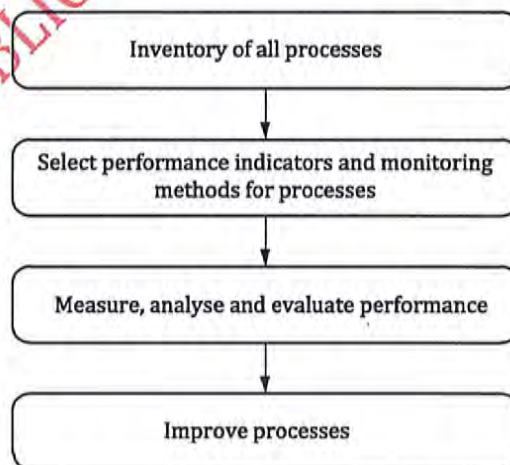


Figure 4 — Steps for using performance indicators

10.2.2 The methods used for collecting information regarding performance indicators should be practicable and appropriate to the organization, such as:

- a) the monitoring and recording of process variables and product and service characteristics;
- b) risk assessments of processes, products and services;
- c) performance reviews, including on external providers and partners;
- d) interviews, questionnaires and surveys on the satisfaction of interested parties.

10.2.3 Factors that are within the control of the organization and critical to its sustained success should be subject to measurement and identified as key performance indicators (KPIs). These measurable KPIs should be:

- a) accurate and reliable, to enable the organization to set measurable objectives, monitor and predict trends, and take actions for improvement and innovations when necessary;
- b) selected as a basis for making strategic and operational decisions;
- c) suitably cascaded as performance indicators at relevant functions and levels within the organization, to support the achievement of top level objectives;
- d) appropriate to the nature and size of the organization, its products and services, processes and activities;
- e) consistent with the strategy and objectives of the organization.

10.2.4 The organization should consider specific information relating to risks and opportunities when selecting KPIs. In addition, the organization should ensure that KPIs provide information to implement action plans when performance does not achieve the objectives, or to improve and innovate process efficiency and effectiveness. Such information should take into account elements such as:

- a) the needs and expectations of interested parties;
- b) the importance of individual products and services to the organization;
- c) the effectiveness and efficiency of processes;
- d) the effective and efficient use of resources;
- e) financial performance;
- f) compliance with applicable external requirements.

10.3 Performance analysis

Analysis of the organization's performance should enable identification of issues, such as:

- a) insufficient or ineffective resources within the organization;
- b) insufficient or ineffective competencies, organizational knowledge and inappropriate behaviour;

- c) risks and opportunities that are not being sufficiently addressed by the organization's management systems;
- d) weakness in leadership activities, including:
 - 1) policy establishment and communication (see Clause 7);
 - 2) the managing of processes (see Clause 8);
 - 3) the managing of resources (see Clause 9);
 - 4) improvement, learning and innovation (see Clause 11);
- e) potential strengths that might need to be fostered with regard to leadership activities;
- f) processes and activities showing outstanding performance that could be used as a model to improve other processes.

The organization should have a clear framework to demonstrate the interrelations between its leadership activities and their effects on the organization's performance. This can enable the organization to analyse the strengths and weaknesses of its leadership activities.

10.4 Performance evaluation

10.4.1 The organization's performance should be evaluated from the viewpoint of the needs and expectations of its interested parties. When deviations from the needs and expectations are found, the processes and their interactions that affect its performance should be identified and analysed.

10.4.2 The organization's performance results should be evaluated against applicable objectives (see 7.3) and their pre-determined criteria. Where objectives have not been achieved, the cause(s) should be investigated, with appropriate reviews of the deployment of the organization's policies, strategy and objectives and the organization's managing of resources, as necessary. Similarly, when objectives have been exceeded, what made it possible should be analysed in order to maintain the performance.

The results of evaluation should be understood by top management. Any identified performance failures should be prioritized for corrective action, based on the impact on the organization's policies, strategy and objectives.

Improvement achieved on the organization's performance should be evaluated from a long-term perspective. When the degree of improvement does not match the expected level, the organization should review the deployment of its policies, strategy and objectives for improvement and innovation, as well as the competencies and engagement of its people.

10.4.3 The organization's performance should be compared to established or agreed benchmarks. Benchmarking is a measurement and analysis methodology that an organization can use to search for the best practices inside and outside the organization, with the aim of improving its performance and innovative practices. Benchmarking can be applied to policies, strategy and objectives, processes and their operations, products and services, or the organization's structures.

10.4.4 The organization should establish and maintain a methodology for benchmarking that defines rules for items, such as:

- a) the definition of the scope of the subject for benchmarking;

- b) the process for choosing benchmarking partner(s), as well as any necessary communications and confidentiality policies;
- c) the determination of indicators for the characteristics to be compared and the data collection methodology to be used;
- d) the collection and analysis of data;
- e) the identification of performance gaps and the indication of potential improvement areas;
- f) the establishment and monitoring of corresponding improvement plans;
- g) the inclusion of gathered experience into the organization's knowledge base and learning process (see 11.3).

10.4.5 The organization should consider the different types of benchmarking practices, such as:

- a) internal benchmarking of activities and processes within the organization;
- b) competitive benchmarking of performance or processes with competitors;
- c) generic benchmarking, by comparing strategies, operations or processes with unrelated organizations.

10.4.6 When establishing a benchmarking process, the organization should take into account that successful benchmarking depends on factors such as:

- a) support from top management (as it involves mutual knowledge interchange between the organization and its benchmarking partners);
- b) the methodology used to apply benchmarking;
- c) an estimation of benefits versus costs;
- d) an understanding of the characteristics of the subject being investigated, in order to allow a correct comparison with the current situation in the organization;
- e) implementing lessons learned to bridge any determined gaps.

10.5 Internal audit

Internal audits are an effective tool for determining the levels of conformity of the organization's management system to its selected criteria. They provide valuable information for understanding, analysing and improving the organization's performance. Internal audits should assess the implementation, effectiveness and efficiency of the organization's management systems. This can include auditing against more than one management system standard, as well as addressing specific requirements relating to interested parties, products, services, processes or specific issues.

To be effective, internal audits should be conducted in a consistent manner, by competent people, in accordance with the organization's audit planning. Audits should be conducted by people who are not involved in the activity being examined, in order to give an independent view on what is being performed.

Internal auditing is an effective tool for identifying problems, nonconformities, risks and opportunities, as well as for monitoring progress on resolving previously identified problems and nonconformities.

Internal auditing can also be focused on the identification of good practices and on improvement opportunities.

The outputs of internal audits provide a useful source of information for:

- a) addressing problems, nonconformities and risks;
- b) identifying opportunities;
- c) promoting good practices within the organization;
- d) increasing understanding of the interactions between processes.

Internal audit reporting usually contains information on conformity to the given criteria, nonconformities and improvement opportunities. Audit reporting is an essential input for management review. Top management should establish a process for reviewing all internal audit results, in order to identify trends that can require organization-wide corrective actions and opportunities for improvement.

The organization should use the results of other audits, such as second- and third-party audits, as feedback for corrective actions. It can also use them to monitor progress in the implementation of appropriate plans intended to facilitate the resolution of nonconformities, or for the implementation of identified opportunities for improvement.

NOTE See ISO 19011 for further guidance on auditing management systems.

10.6 Self-assessment

Self-assessment should be used to determine the strengths and weaknesses of the organization as well as best practices, both at an overall level and at the level of individual processes. Self-assessment can assist the organization to prioritize, plan and implement improvements and/or innovations, where necessary.

Elements of a management system should not be assessed independently given that processes are inter-dependent. This allows for assessment of relationships between elements and their impacts on the organization's mission, vision, values and culture.

The results of self-assessment support:

- a) improvement of the organization's overall performance;
- b) progress towards achieving and maintaining sustained success for the organization;
- c) innovation in the organization's processes, products and services, and the organization's structure, when appropriate;
- d) recognition of best practices;
- e) identification of further opportunities for improvement.

The results of self-assessment should be communicated to relevant people within the organization, in order to be used to share understanding about the organization and its future direction.

A self-assessment tool based on this document is provided in Annex A.

10.7 Reviews

Reviews of performance measurement, benchmarking, analysis and evaluations, internal audits and self-assessments should be performed by appropriate levels and functions of the organization, as well as by

top management. The reviews should be conducted at planned and periodic intervals, to enable trends to be determined and to evaluate the organization's progress towards achieving its policies, strategy and objectives. They should also address the assessment and evaluation of improvement, learning and innovation activities performed previously, including aspects of adaptability, flexibility and responsiveness in relation to the organization's mission, vision, values and culture.

The reviews should be used by the organization to understand the needs of adapting its policies, strategy and objectives (see Clause 7). They should also be used to determine the opportunities for improvement, learning and innovation of the organization's managerial activities (see Clause 11).

The reviews should enable evidence-based decision making and the establishment of actions to achieve desired results.

11 Improvement, learning and innovation

11.1 General

Improvement, learning and innovation are interdependent and key aspects that contribute to the sustained success of an organization. They create inputs into products, services, processes and management systems, and contribute to achieving desired results.

The organization will experience constant change in its external and internal issues and in the needs and expectations of its interested parties. Improvement, learning and innovation support the organization's ability to respond to these changes in a manner that enables it to fulfil its mission and vision, as well as supporting its achievement of sustained success.

11.2 Improvement

Improvement is an activity to enhance performance. Performance can relate to a product or service, or to a process. Improving product or service performance or the management system can help the organization anticipate and meet the needs and expectations of interested parties and also increase economic efficiency. Improving processes can lead to increased effectiveness and efficiency, resulting in benefits such as cost, time and energy saving and reduced waste; in turn, this can lead to meeting the needs and expectations of interested parties more effectively.

Improvement activities can range from small-step continual improvements to significant improvements of the entire organization.

The organization should define objectives for improving its products or services, processes, structure and management system, by using the results of the analysis and evaluation of its performance.

Improvement processes should follow a structured approach. The methodology should be applied consistently for all processes.

The organization should ensure that improvement becomes established as a part of the organization's culture by:

- a) empowering people to participate in and contribute to the successful achievement of improvement initiatives;
- b) providing the necessary resources to achieve improvements;
- c) establishing recognition systems for improvements;
- d) establishing recognition systems for improving the effectiveness and efficiency of the improvement process;
- e) engagement of top management in improvement activities.

11.3 Learning

11.3.1 The organization should encourage improvement and innovation through learning. The inputs for learning can be derived from many sources, including experience, analysis of information, and the results of improvements and innovations.

A learning approach should be adopted by the organization as a whole, as well as at a level that integrates the capabilities of individuals with those of the organization.

11.3.2 Learning as an organization involves consideration of:

- a) collected information relating to various external and internal issues and interested parties, including success stories and failures;
- b) insight through in-depth analysis of the information collected.

Learning that integrates the capabilities of individuals with those of the organization is achieved by combining the knowledge, thinking patterns and behaviour patterns of people with the values of the organization.

Knowledge can be explicit or tacit. It can originate from inside or outside the organization. It should be managed and maintained as an asset of the organization.

The organization should monitor its organizational knowledge and determine the need to acquire, or more effectively share, knowledge throughout the organization.

11.3.3 In order to foster a learning organization, the following factors should be considered:

- a) the organization's culture, aligned with its mission, vision and values;
- b) top management supporting initiatives in learning, by demonstrating its leadership and through its behaviour;
- c) stimulation of networking, connectivity, interactivity and sharing of knowledge both inside and outside the organization;
- d) maintaining systems for learning and sharing of knowledge;
- e) recognizing, supporting and rewarding the improvement of people's competence, through processes for learning and sharing of knowledge;
- f) appreciating creativity and supporting diversity of the opinions of the different people in the organization.

Rapid access to, and use of, organizational knowledge can enhance the organization's ability to manage and maintain its sustained success (see 9.3).

11.4 Innovation

11.4.1 General

Innovation should result in improvement leading to new or changed products or services, processes, market position, or performance, enabling realization or redistribution of value.

Changes in the organization's external and internal issues and the needs and expectations of interested parties could require innovation.

To support and promote innovation the organization should:

- a) identify specific needs for innovation and encourage innovative thinking in general;
- b) establish and maintain processes that allow for effective innovation;
- c) provide the resources needed to realize innovative ideas.

11.4.2 Application

Innovation can be applied at all levels of the organization, through changes in:

- a) technology or products or services (i.e. innovations that not only respond to the changing needs and expectations of interested parties, but also anticipate potential changes in the organization and in the life cycles of its products and services);
- b) processes (i.e. innovation in the methods for production and service provision, or innovation to improve process stability and reduce variation);
- c) the organization (i.e. innovation in the constitution and the structures of the organization);
- d) the organization's management system (i.e. to ensure that competitive advantage is maintained and new opportunities are utilized, when there are emerging changes in the organization's context);
- e) the organization's business model (i.e. innovation in responding to distribution of value to customers or changing market position in accordance with interested parties' needs and expectations).

11.4.3 Timing and risk

The organization should evaluate the risks and opportunities related to its plans for innovation activities. It should give consideration to the potential impact on the managing of changes and prepare action plans to mitigate those risks (including contingency plans), where necessary.

The timing for the introduction of an innovation should be aligned with the evaluation of the risk associated with undertaking that innovation. The timing should usually be a balance between the urgency with which it is needed and the resources that are made available for its development.

The organization should review, improve and innovate based on the results of its performance evaluation (see Clause 10).

The organization should use a process that is aligned with its strategic direction to plan and prioritize innovation initiatives.

The results of innovation should be reviewed in order to experience learning and to increase organizational knowledge.

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Annex A **(informative)**

Self-assessment tool

A.1 General

Self-assessment can provide an overall view of the performance of an organization and the degree of maturity of its management system. It can help to identify areas for improvement and/or innovation and to determine priorities for subsequent actions.

Audits are used to determine the extent to which, for example, requirements related to a management system are fulfilled (against a defined standard, or the organization's own criteria). Audit findings are used to assess the effectiveness of, for example, a management system, and to identify risks and opportunities for improvement.

An organization should use self-assessment to identify improvement and innovation opportunities, set priorities and establish action plans, with the objective of sustained success. The output of self-assessment will show strengths and weaknesses, the related risks and opportunities for improvement, the maturity level of the organization and, if repeated, the organization's progress over time.

The results of an organization's self-assessment can be a valuable input into management reviews. Self-assessment also has the potential to be a learning tool, which can provide an improved overview of the organization, promote the involvement of interested parties and support the overall planning activities of the organization.

The self-assessment tool given in this annex is based on the guidance detailed in this document and provides a framework for improvement. It can be used as given, or it can be customized to suit the organization.

A.2 Maturity model

A mature organization performs effectively and efficiently and achieves sustained success by:

- a) understanding and satisfying the needs and expectations of interested parties;
- b) monitoring changes in the context of the organization;
- c) identifying possible areas for improvement, learning and innovation;
- d) defining and deploying policies, strategy and objectives;
- e) managing its processes and resources;
- f) demonstrating confidence in its people, leading to increased engagement;
- g) establishing beneficial relationships with interested parties, such as external providers and other partners.

This self-assessment tool uses five maturity levels, which can be extended to include additional levels or otherwise customized as needed.

Table A.1 gives a generic framework for setting out how performance criteria can be related to the levels of maturity in a tabular format. The organization should review its performance against the specified criteria, identify its current maturity levels, and determine its strengths and weaknesses and the related risks and opportunities for improvement.

The criteria given for the higher levels can help the organization to understand the issues it needs to consider and to determine the improvements needed to reach higher levels of maturity. Tables A.2 to A.32 give self-assessment criteria based on this document.

Table A.1 — Generic model for self-assessment elements and criteria related to maturity levels

Maturity level towards sustained success					
Key element	Level 1	Level 2	Level 3	Level 4	Level 5
Element 1	Criteria 1 Base level				Criteria 1 Best practice
Element 2	Criteria 2 Base level				Criteria 2 Best practice
Element 3	Criteria 3 Base level				Criteria 3 Best practice

A.3 Self-assessment of detailed elements

This self-assessment is intended to be performed by process owners and managers at all levels to obtain an in-depth overview of the organization and its current performance.

The elements of this self-assessment are contained in Tables A.2 to A.32 and relate to the subclauses of this document; however, the organization can define additional or different criteria to fulfil its own specific needs. If appropriate, the self-assessment can be limited to any of the tables in isolation.

A.4 Using the self-assessment tools

A.4.1 The purposes of a step-by-step methodology for an organization to conduct a self-assessment are:

- a) to define the scope of the self-assessment in terms of the parts of the organization to be assessed and the type of the assessment, such as:
 - 1) a self-assessment of key elements;
 - 2) a self-assessment of detailed elements, based on this document;
 - 3) a self-assessment of detailed elements, based on this document with additional or new criteria or levels;
- b) to identify who will be responsible for the self-assessment and when it will be carried out;
- c) to determine how the self-assessment will be carried out, either by a team (cross-functional or other appropriate team) or by individuals (the appointment of a facilitator can assist the process);
- d) to identify the maturity level for each of the organization's individual processes, which should be done by:

- 1) comparing the present situation in the organization to the scenarios that are listed in the tables;
 - 2) marking the elements that the organization is already applying, i.e. start at level 1 and build on progress, to attain maturity level 5 by incorporating the criteria identified in levels 3 and 4;
 - 3) establishing the current maturity level;
- e) to consolidate the results into a report, which this provides a record of progress over time and can facilitate the communication of information, both externally and internally (the use of graphics in such a report can aid the communication of the results);
- f) to assess the current performance of the organization's processes and identify areas for improvement and/or innovation (these opportunities should be identified through the self-assessment process and an action plan developed as a result of the assessment).

A.4.2 An organization can be at different maturity levels for the different elements. A review of the gaps can help top management in planning and prioritizing the improvement and/or innovation activities needed to move individual elements to a higher level.

The completion of a self-assessment should result in an action plan for improvement and/or innovation that should be used as an input to top management for planning and review, based on the elements of this document.

The information gained from the self-assessment can also be used:

- a) to stimulate comparisons and share learning throughout the organization (the comparisons can be between the organization's processes and, where applicable, between its different units);
- b) to benchmark with other organizations;
- c) to monitor progress of the organization over time, by conducting periodic self-assessments.

Following the reviews, the organization should assign responsibilities for the chosen actions, estimate and provide the resources needed, and determine the expected benefits and any perceived risks associated with them.

Table A.2 — Self-assessment of the detailed elements of 5.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
5.2 Relevant interested parties	1	The interested parties are determined, including their needs and expectations and whether the associated risks and opportunities are informal or ad hoc.		
	2	Processes to meet the needs of some interested parties are established.		
		Ongoing relationships with interested parties are established as informal or ad hoc.		
	3	Processes for determining which interested parties are relevant are in place.		
		Processes for determining the relevance of interested parties include consideration of those that are a risk to sustained success if their needs and expectations are not met and those that can provide opportunities to enhance sustained success.		
		The needs and expectations of the relevant interested parties are identified.		
		Processes to fulfil the needs and expectations of the interested parties are established.		
	4	Processes for assessing the relevance of the needs and expectations for relevant interested parties are in place and are used to determine which ones need to be addressed.		
		The needs and expectations of key interested parties are addressed and reviewed such that improved performance, common understanding of objectives and values, and enhanced stability have been realized in some of these ongoing relationships.		
	5	Processes and relationships with relevant interested parties are fulfilled according to the relevant needs and expectations determined. This has been done as part of understanding the benefits, risks and opportunities of ongoing relationships.		
The needs and expectations of all relevant interested parties are addressed, analysed, evaluated and reviewed, such that there is improved and sustained performance, common understanding of objectives and values, and enhanced stability, including recognition of the benefits derived from these ongoing relationships.				
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.3 — Self-assessment of the detailed elements of 5.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
5.3 External and internal issues	1	Processes for determining and addressing external and internal issues are informal or ad hoc.		
	2	Processes for determining and addressing issues are in place.		
		The risks and opportunities related to the issues identified are determined as informal or ad hoc.		
	3	Processes to determine internal issues that can affect the organization's ability to achieve sustained success are identified.		
		Processes to determine external issues that can affect the organization's ability to achieve sustained success are identified.		
	4	External and internal issues are determined and show consideration for factors such as statutory, regulatory and sector specific requirements, globalization, innovation, activities and associated processes, strategy and levels of competence and organizational knowledge.		
		Risks and opportunities are determined, and show consideration for information from the organization's past and its current situation.		
		Processes to address issues considered to be risks to sustained success, or opportunities to enhance sustained success, are established, implemented and maintained.		
	5	Processes for the ongoing monitoring, reviewing and evaluation of external and internal issues are established, implemented and maintained, with actions arising from this process acted on.		
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.			
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.4 — Self-assessment of the detailed elements of 6.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
6.2 Mission, vision, values and culture	1	Processes for determining the identity of the organization, along with the establishment of mission, vision, values and culture, are informal or ad hoc.		
	2	A basic understanding of the organization's mission, vision and values exists.		
		An understanding of the current culture, and whether there is a need to change it, is informal or ad hoc.		
	3	Top management is involved in determining the mission, vision and values, based on processes that account for the definition and sustainment of the context of the organization in relation to its defined identity.		
		An understanding of the current culture, along with a process for considering the need for a change to that culture, is in place.		
		Changes to the organization's identity are communicated informally to perceived interested parties.		
	4	The organization's culture is aligned with its mission, vision and values.		
		A clearly defined understanding of the current culture, along with a process for considering the need for a change to that culture, is implemented and maintained.		
		The strategic direction of the organization and its policy are aligned with its mission, vision, values and culture.		
		Changes to any of these identity elements are communicated within the organization and to its interested parties, as appropriate.		
	5	A process for reviewing these elements at planned intervals by top management is well established and maintained. This includes consideration of external and internal issues as part of the verification of alignment between the elements of the identity of the organization, its context, its strategic direction and its policy.		

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

Table A.5 — Self-assessment of the detailed elements of 7.1

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
7.1 Leadership — General	1	Processes for defining, maintaining and communicating the leadership's vision, mission and values, and for promoting an internal environment in which people are engaged and committed to the achievement of the organization's objectives are carried out in an informal or ad hoc manner.		
	2	Key processes, such as those related to establishing the organization's identity, a culture of trust, integrity and teamwork, the necessary resources, training and authority to act, ensuring behavioural attributes are defined, and supporting leadership development, are determined.		
		Only some interrelationships between leadership and commitment, including the maintenance of a competitive organizational structure, maintaining unity of purpose and direction, and reinforcement of values and expectations are determined.		
	3	Processes and the interactions of activities related to the organization's identity, cultural aspects, the provision of resources, training, the authority to act and behavioural factors are accounted for.		
		A competitive organizational structure and unity of purpose are established.		
		Values and expectations are established and communicated.		
		Leadership development is defined.		
		Processes to maintain the culture and promote accountability are acted on.		
		Maintenance of the organizational structure and unity of purpose in relation to the context of the organization, personally and/or regularly reinforcing values and expectations, are included in process determination.		
	4	Processes and their interactions are systematically determined in such a way that outputs and outcomes are concise and create an internal environment in which people are engaged and committed to the achievement of the organization's objectives, and in a way that promotes understanding and supports the organization's ability to achieve sustained success.		
All relevant factors and their interrelationships are considered in process determination.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

5	Processes and the interactions of leadership with all levels of the organization are dynamically determined and used to establish and sustain the success of the organization.	
<p>^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.</p> <p>^b This may include recognition of aspects where the organization is partially meeting a maturity level.</p>		

Table A.6 — Self-assessment of the detailed elements of 7.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
7.2 Policy and strategy	1	Processes for determining the organization's policy and strategy are done in an informal or ad hoc manner.		
	2	The policy and strategy, and the basic strategy framework, are determined.		
	3	Processes and the interactions related to the policy and strategy are defined to address all applicable aspects, models and factors.		
		The organization's identity, the context of the organization and long-term perspective, a competitive profile and consideration of competitive factors are determined.		
		The policy and strategy decisions are reviewed for continuing suitability and changed as deemed necessary by top management.		
	4	Processes and their interactions are systematically determined to ensure the policy and strategy provide a comprehensive framework for process management, to support deployment and facilitate changes, as well as to effectively account for applicable aspects and factors.		
		The processes for maintaining a standardized or custom model for a strategy framework and the policy are determined and address and aid in the mitigation of risks, while taking advantage of opportunities.		
	5	Processes and the relationships between the policy and strategic direction are dynamically determined, with all applicable aspects and factors accounted for, such that a comprehensive framework exists to support the establishment, maintenance and managing of processes.		
		The needs of all interested parties are addressed and the policy and strategy are utilized to manage the business in a comprehensive way.		
	<p>^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.</p> <p>^b This may include recognition of aspects where the organization is partially meeting a maturity level.</p>			

Table A.7 — Self-assessment of the detailed elements of 7.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
7.3 Objectives	1	Processes for determining the organization's objectives are done in an informal or ad hoc manner.		
		Only the short-term objectives are defined.		
	2	Processes for determining the objectives are defined and the objectives show some interrelationship with policy and strategy.		
		The objectives are quantifiable, where possible, but are not clearly understood.		
		Processes and the interactions of short- and long-term objectives with the policy and strategy are defined, including the ability to demonstrate leadership and commitment outside the organization.		
	3	Processes for defining, maintaining and deploying the objectives, including the relationship with the policy and strategy, are in place and maintained, including the need to establish clearly understood and quantifiable short- and long-term objectives that also demonstrate leadership and commitment outside the organization.		
		The short- and long-term objectives are defined, and the relationship with the policy and strategy is evident.		
	4	Processes and the relationship between the policy, strategy and the demonstrated leadership and commitment outside the organization are dynamically determined and maintained.		
5	Short- and long-term objectives are quantifiable, clearly understood, deployed and updated to maintain the relationship with the policy and strategy, such that top management's leadership and commitment are demonstrated both internally and outside the organization.			

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

Table A.8 — Self-assessment of the detailed elements of 7.4

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
7.4 Communication	1	The processes for communicating the policy, strategy and objectives are done in an informal or ad hoc manner.		
	2	The processes for determining the types and degree of communication needed are defined.		
	3	Communication processes are defined and facilitate meaningful, timely and continual communication tailored to the differing needs of recipients, as it relates to the policy, strategy and relevant objectives.		
		The interrelationships of this communication are clear with regard to the differing needs of recipients and how the policy, strategy and relevant objectives are used to aid in the sustained success of the organization.		
		A feedback mechanism is in place and incorporates provisions to proactively address changes in the organization's context.		
	4	The communication processes systematically facilitate communication regarding the policy, strategy and objectives to all relevant interested parties, in support of the organization's sustained success, while also accounting for the need to deploy communication when change is realized.		
		Communication methods show a direct relationship to the context of the organization and the feedback mechanism is well defined and effectively deployed.		
	5	The processes for communicating the policy, strategy and objectives are dynamic, with the interrelationships of the policy, strategy and objectives being clearly conveyed to all recipients, such that the differing needs of each are accounted for.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY APRIL - JUNE 2019

Table A.9 — Self-assessment of the detailed elements of 8.1

Subclause	Maturity level		Conclusion			
	Level	Item ^a	YES	Results/comment ^b		
8.1 Process management — General	1	Processes are managed in an informal or ad hoc manner.				
	2	Key processes, such as those relating to customer satisfaction and operations related to product and service, are managed.				
		The effectiveness of the processes is individually measured, and acted upon. Interactions between processes are not well managed.				
	3	Processes and their interactions are managed as a system. Interaction conflicts between processes are identified and resolved in a systematic way.				
		Processes are delivering predictable results.				
		Process performance has reached that of average organizations in the sector where the organization operates.				
	4	Process management is integrated with the deployment of the organization's policies, strategy and objectives.				
		The effectiveness and efficiency of processes and their interactions are systematically reviewed and improved.				
		Process performance has exceeded that of average organizations in the sector where the organization operates.				
	5	All relevant processes and their interactions are proactively managed, including outsourced processes, to ensure that they are effective and efficient, in order to achieve the organization's policies, strategy and objectives.				
		Processes and their interactions are adapted and optimized to the context of the organization.				
		Process performance has reached that of leading organizations in the sector where the organization operates.				
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.					
	^b This may include recognition of aspects where the organization is partially meeting a maturity level.					

FDBNS FOR PUBLIC COMMENT ONLY APRIL - JUNE 2019

Table A.10 — Self-assessment of the detailed elements of 8.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
8.2 Determination of processes	1	Processes are determined in an informal or ad hoc manner.		
	2	Key processes, such as those relating to customer satisfaction and operations related to product and service, are determined.		
		Interactions between processes are not well determined.		
	3	Processes and their interactions are determined to address not only operations related to product and service, but also provision of resources and managerial activities (e.g. planning, measuring, analysis, improvement).		
		The needs and expectations of identified interested parties are used as inputs into process determination.		
	4	Processes and their interactions are systematically determined to ensure that their outputs continue to meet the needs and expectations of customers and other interested parties.		
		All interested parties are considered in process determination.		
	5	Processes and their interactions are determined and changed flexibly according to the organization's policies, strategy and objectives.		

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.11 — Self-assessment of the detailed elements of 8.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
8.3 Process responsibility and authority	1	Process responsibilities are defined in an informal or ad hoc manner.		
	2	A process owner is appointed for each process.		
		The competences required for the people associated with the individual processes are not defined.		
	3	For each process, a process owner is appointed, who has defined responsibilities and authorities to establish, maintain, control and improve the process.		
		A policy to avoid and resolve potential disputes in managing processes exists.		
		The competences required for process owners are defined.		
	4	A process owner is appointed for each process, with sufficient responsibility, authority and competence to establish, maintain, control and improve the process and its interaction with other processes.		
		The competences required for the people associated with individual processes are well defined and continually improved.		
	5	Responsibilities, authorities and roles of process owners are recognized throughout the organization.		
		Responsibilities and authorities for interactions between processes are well defined.		
		The people associated with individual processes have sufficient competences for the tasks and activities involved.		
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.			
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY UNTIL - JUNE 2019

Table A.12 — Self-assessment of the detailed elements of 8.4 (alignment/linkage)

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
8.4 Managing processes (managing alignment/ linkage between the processes)	1	Processes are aligned and linked in an informal or ad hoc manner.		
	2	Alignment/linkage between processes is discussed but major concerns of managers are on individual processes.		
	3	The network of processes, their sequence and interactions are visualized in a graphic to understand the roles of each process in the system and its effects on the performance of the system.		
		Processes and their interactions are managed as a system to enhance alignment/linkage between the processes.		
	4	Criteria for the outputs of processes are determined. The capability and performance of processes are evaluated and improved.		
		The risks and opportunities associated with processes are assessed and necessary actions are implemented to prevent, detect or mitigate undesired events.		
		Processes and their interactions are reviewed on a regular basis and suitable actions are taken for their improvement to support sustained and effective processes.		
	5	The capability and performance of processes are sufficient to effectively and efficiently achieve the performance expected by the system.		
		Cross-functional teams or committees under top management's leadership facilitate their review and improvement of the processes.		
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.			
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY - APRIL - JUNE 2019

Table A.13 — Self-assessment of the detailed elements of 8.4 (attaining a higher level of performance)

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
8.4 Managing processes (attaining a higher level of performance)	1	Processes and their interactions are improved in an informal or ad hoc manner.		
	2	Improvement of processes and their interactions are loosely related with the organization's policies, strategy and objectives.		
	3	Processes and their interactions are improved based on the organization's policies, strategy and objectives.		
		The achievement of the objectives for improvement of processes and their interactions are reviewed on a regular basis.		
	4	Processes and their interactions are systematically improved to achieve the organization's policies, strategy and objectives.		
		The action plans for attaining the objectives are determined, taking into account the resources needed and their availability.		
		People are motivated to engage in the improvement activities and propose opportunities for improvement in the processes for which they are in charge.		
	5	Improvement of processes and their interaction are dynamically managed through the organization's policies, strategy and objectives.		
		The need to develop or acquire new technologies, or develop new products and services or their features, for added value, are considered.		
		The achievement of the objectives for improvement, the progress of the action plans, and the effects on the related organization's policies, strategy and objectives are reviewed on a regular basis, and necessary corrective actions are taken.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY APRIL - JUNE 2019

Table A.14 — Self-assessment of the detailed elements of 8.4 (maintaining the level)

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
8.4 Managing processes (maintaining the level attained)	1	Processes and their interactions are operated in an informal or ad hoc manner.		
	2	Procedures are determined for relevant processes but not well followed.		
		Deviations are no concern of process owners.		
	3	Procedures are determined for each process, including the criteria for its outputs and operational conditions.		
		Consideration is given to education and training.		
		Managers take necessary corrective actions when the procedures are not followed.		
		Resources necessary for people to follow the procedures are made available.		
		Processes are monitored on a regular basis to detect deviations.		
	4	Procedures ensure conformance of the outputs to the criteria.		
		People have sufficient knowledge and skills to follow the procedures and understand the impacts of not following the procedures.		
		Consideration is given to motivation and human error prevention.		
		Check points and related performance indicators are determined to detect deviations (which are mainly caused by changes in people, equipment, methods, material, measurement and environment for operation of processes) and to take appropriate actions when necessary.		
	5	A system for determining the knowledge and skills needed for each process, evaluating the knowledge and skills of the process operators, and providing qualifications for operating the process is established.		
		People are engaged in the development or revision of the procedures.		
		Risks and opportunities in the procedures are identified, assessed and reduced by improving the procedures.		
		Changes in processes are clarified and shared to prevent deviations.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

Table A.15 — Self-assessment of the detailed elements of 9.1

Subclause	Maturity level	Conclusion
-----------	----------------	------------

	Level	Item ^a	YES	Results/comment ^b
9.1 Resource management — General	1	Processes to manage the resources to support the operation in an organization are performed in an informal and ad hoc manner.		
		Some of the resource management processes to support the achievement of objectives are determined.		
	2	Support for the effective and efficient use of resources is defined in a limited manner.		
		A basic approach for considering risks and opportunities, including the effects of not having sufficient resources in a timely manner, is in place.		
		Key processes to determine and manage the resources needed for the achievement of its objectives are determined.		
		The efficient and effective uses of resources are not well defined.		
		Resource management processes and the interactions for getting and assigning resources, aligned with the organizational objectives, are present.		
	3	Some processes include an approach for effectively and efficiently applying resources.		
		Resource management processes and the interactions for getting and assigning resources, aligned with the organizational objectives, are systematically implemented.		
	4	Controls to support the effective and efficient use of resources in all processes are established.		
		The accessibility of externally provided resources is confirmed by the organization.		
		External providers are encouraged by the organization to implement improvements on the efficient and effective use of resources.		
		A strategic planning process for getting and assigning resources is in place and is aligned with the organizational objectives in order to achieve effective and efficient performance in support of the sustained success.		
	5	The use of externally provided resources shows continual improvement.		
There are joint initiatives with external providers to evaluate and incorporate improvements and promote innovations on the use of resources.				

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

Table A.16 — Self-assessment of the detailed elements of 9.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.2 People	1	Competent, engaged, empowered and motivated people are considered to be a resource in an informal or ad hoc manner.		
		Competence development is provided in an informal or ad hoc manner.		
	2	Processes to attract competent, engaged, empowered and motivated people are implemented.		
		Processes for determining, developing, evaluating and improving resources are evident in some cases.		
		Some competence reviews have been implemented.		
	3	A planned, transparent, ethical and socially responsible approach is applied at all levels throughout the organization.		
		Reviews and evaluations of the effectiveness of actions taken ensure the personal competences (in both the short and long term) are in accordance with the mission, vision and objectives.		
	4	Information, knowledge and experience are shared to provide personal growth.		
		Learning, knowledge transfer and teamwork within the organization are evident.		
		Competence development is provided to develop skills for creativity and improvement.		
		People are aware of their personal competences and where they can best contribute to the organization's improvement.		
		Career planning is well developed.		
	5	The results achieved for competent, engaged, empowered and motivated people are shared and compare well with other organizations.		
		People across the organization participate in the development of new processes.		
		Best practices are recognized.		

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

Table A.17 — Self-assessment of the detailed elements of 9.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.3 Organizational knowledge	1	Processes to capture the current baseline of organizational knowledge are informal or ad hoc.		
		Processes to develop organizational knowledge are informal or ad hoc.		
	2	Some processes for maintaining and protecting documented organizational knowledge are in place.		
	3	Activities to determine whether explicit or tacit knowledge exists are in place and some are documented.		
		Processes for identifying important information and ensuring the effective distribution of such information throughout the life cycle(s) of relevant products and/or services exist.		
	4	Processes exist for gathering and analysing competitive data.		
		Processes to evaluate staff understanding of relevant organizational knowledge are present.		
		Methods for process owners to evaluate the competencies of utilizing processes exist.		
		Methods for determining and communicating the roles of process owners in managing staff are present.		
	5	There are processes for gathering and analysing data from interested parties.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.18 — Self-assessment of the detailed elements of 9.4

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.4 Technology	1	Advances in current technology are done in an informal or ad hoc manner.		
	2	Some of the processes for identifying the latest innovations and technological developments exist within the organization or the sectors to which it directly or indirectly relates.		
	3	Processes for evaluating the benefits, risks and opportunities for the identified innovations and emergent technologies are in place and support the suitability of product and/or service strategies.		
		Processes for estimating the cost/benefits for adopting suitable innovations and/or emergent technologies are in place.		
		Processes for evaluating the marketability of selected innovations and/or emerging technologies are in place.		
	4	The organizational knowledge and resource capability needed to adapt to the innovations and/or technological changes or advancements are in place.		
		Processes for evaluating the risks and opportunities for adopting the selected innovations and/or technological changes or advancements are in place.		
	5	Processes for considering the needs of interested parties and offering a suite of innovations as solutions to meet customer expectations are in place.		
		The organization takes measures to keep informed of new technologies and methodologies and their possible benefits.		
		The impact of new technologies and new practices is monitored and evaluated regularly, taking into account internal and external effects, including interested parties and the environment.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY - APRIL - JUNE 2019

Table A.19 — Self-assessment of the detailed elements of 9.5

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.5 Infrastructure and work environment	1	Infrastructure and work environment needs are addressed in an informal or ad hoc manner.		
	2	Some processes for addressing infrastructure and work environment needs are in place.		
	3	Processes that address applicable risks and opportunities and that implement activities for the determination, allocation, provision, measurement or monitoring, improvement, maintenance and protection of the infrastructure and work environment are in place.		
	4	Processes implementing advanced techniques to improve performance and ensure the maximum efficiency in the use of infrastructure and work environment resources are in place.		
		These processes operate in a proactive manner and contribute to the achievement of the organization's objectives, including the fulfilment of statutory and regulatory requirements.		
5	The way in which infrastructure and the work environment are managed becomes a key contributor in the achievement of desired results.			
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY - APRIL - JUNE 2019

Table A.20 — Self-assessment of the detailed elements of 9.6

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.6 Externally provided resources	1	The concept of partnership with external providers is informal or ad hoc.		
		External providers are seen as transient and the organization sees no value in developing relationships.		
	2	There is a limited understanding regarding the value in having regular external providers that will deliver a consistent supply.		
	3	There is a good working relationship between the two organizations, with regular communications about issues relating to the product or service provided taking place.		
	4	Top management is committed to developing a close relationship with external providers, with action to develop this at the level of middle management, where close co-operation is carried out.		
		Some project coordination is carried out as it relates to specific product realization processes.		
	5	Both organizations fully appreciate the value of the relationship.		
		There is close interaction between top management staff in the two organizations.		
		There is sharing of some relevant sensitive commercial information.		
		Both organizations engage in business development projects of common interest.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.21 — Self-assessment of the detailed elements of 9.7

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
9.7 Natural resources	1	There is no managing of natural resources.		
		The organization uses natural resources as required by their processes without considering the potential impacts on their products and services in the future.		
	2	The organization implements some good practices in its current application and use of natural resources.		
	3	The managing of natural resources is aligned within the organization's management system strategy. There is some evidence of improving the actual use of, and minimization of the potential impact of the use of, natural resources.		
	4	The organization recognizes its responsibility to society for managing natural resources.		
		The organization has implemented some best practices in its current application of natural resources.		
	5	The organization recognizes its responsibility to society for managing natural resources related to the life cycle of products and services.		
		The managing of natural resources is widespread in all the areas of the organization.		
		The organization addresses both current and future use of natural resources required by its processes.		
		The organization is aware of new trends and technologies for the efficient use of natural resources, and in relation to the needs and expectations of interested parties.		

^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.

^b This may include recognition of aspects where the organization is partially meeting a maturity level.

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.22 — Self-assessment of the detailed elements of 10.1

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.1 Analysis and evaluation of an organization's performance — General	1	The necessity for updating and understanding the organization's context, policies, strategy and objectives is determined in an informal or ad hoc manner.		
	2	Some information on the organization's performance, the status of its internal activities and resources, changes in its external and internal issues, and the needs and expectations of the interested parties is collected and analysed to update and understand the organization's context, policies, strategy and objectives.		
	3	Available information is collected to update and understand the organization's context, policies, strategy and objectives in a planned manner.		
	4	Based on comprehensive analysis and reviews of available information, the necessity for updating and understanding of the organization's context, policies, strategy and objectives is determined.		
	5	A systematic approach is established to collect, analyse and review available information and to determine the necessity for updating and understanding of the organization's context, policies, strategy and objectives, and to identify opportunities for improvement, learning and innovation of the organization's leadership activities.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY APRIL - JUNE 2019

Table A.23 — Self-assessment of the detailed elements of 10.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.2 Performance indicators	1	Only basic performance indicators (e.g. financial criteria, on-time deliveries, number of customer complaints, legal warnings, fines) are used.		
		Data are not always reliable.		
	2	There is a limited set of performance indicators related to the organization's policies, strategy and objectives, and main processes.		
		Performance indicators are mostly based on the use of internal data.		
		Decisions are partially supported by measurable key performance indicators (KPIs).		
	3	Progress in achieving planned results against the policies, strategy and objectives in relevant processes and functions is identified and tracked by practical performance indicators.		
		The needs and expectations of customers and other interested parties are taken into account when selecting measurable KPIs.		
		Decisions are adequately supported by reliable, usable and measurable KPIs.		
	4	Measurable KPIs are systematically selected to monitor progress in achieving planned results against the mission, vision, policies, strategy and objectives, at all levels and in all relevant processes and functions in the organization, to gather and provide the information necessary for performance evaluations and effective decision making.		
		Measurable KPIs provide information that is accurate, reliable and usable, in order to implement action plans when performance does not conform to objectives, or to improve and innovate process efficiency and effectiveness.		
	5	A process has been established to monitor progress in achieving planned results and make decisions using measurable KPIs.		
		Measurable KPIs contribute to good strategic and tactical decisions.		
Information relating to risks and opportunities is considered when selecting measurable KPIs.				
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

Table A.24 — Self-assessment of the detailed elements of 10.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.3 Performance analysis	1	The organization's performance is analysed in an informal or ad hoc manner.		
	2	There is limited analysis of the organization's performance.		
		Some basic statistical tools are used.		
	3	The organization's performance is analysed to identify issues and potential opportunities.		
		A systematic analysis process is supported by the wide use of statistical tools.		
	4	The organization's performance is analysed: <ul style="list-style-type: none"> — to identify insufficient resources; — to identify insufficient or ineffective competences, organizational knowledge and inappropriate behaviour; — to determine the new organizational knowledge needed; — to identify processes and activities showing outstanding performance that could be used as a model to improve other processes. 		
		The effectiveness of the analysis process is enhanced by the sharing of the analysis results with interested parties.		
	5	The organization's performance is comprehensively analysed to identify potential strengths to be fostered with regard to the organization's leadership activities, as well as weakness in the organization's leadership roles and activities, including: <ul style="list-style-type: none"> — policy establishment and communication; — management of processes; — management of resources; — improvement, learning and innovation. 		
		For the analysis, a clear framework to demonstrate the interrelations between its leadership roles, activities and their effects on the organization's performance is used.		
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.			
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

Table A.25 — Self-assessment of the detailed elements of 10.4

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.4 Performance evaluation	1	The organization's performance is evaluated in an informal or ad hoc manner.		
	2	There is limited evaluation of the organization's performance.		
		Top management supports the identification and promulgation of best practices.		
		Some products from key competitors are evaluated and compared.		
	3	The results achieved on the organization's performance are evaluated against the applicable objectives.		
		The organization's performance is evaluated from the viewpoint of the needs and expectations of customers.		
		The organization's performance is evaluated using comparisons to established or agreed benchmarks.		
	4	Where the objectives have not been attained, the causes are investigated with appropriate review of the deployment of the organization's policies, strategy and objectives and the organization's managing of resources.		
		The results of evaluation are understood comprehensively, and resolution of any identified gaps is prioritized based on their impacts on the organization's policies, strategy and objectives.		
		Improvement achieved on the organization's performance is evaluated from a long-term perspective.		
		The organization's performance is evaluated from the viewpoint of the needs and expectations of all interested parties.		
	5	Benchmarking is used systematically as a tool for identifying opportunities for improvement, learning and innovation.		
		The organization is frequently solicited by external entities to be a benchmark partner.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

Table A.26 — Self-assessment of the detailed elements of 10.5

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.5 Internal audit	1	Internal audits are reactively performed in response to problems, customer complaints, etc.		
		Collected data are mostly used to resolve problems with products and services.		
	2	Internal audits for key processes are performed on a regular basis.		
		Collected data are used systematically to review the managing of processes.		
		Collected data are beginning to be used in a preventive way.		
	3	Internal audits are performed in a consistent manner, by competent personnel who are not involved in the activity being examined, in accordance with an audit plan.		
		Internal auditing identifies problems, nonconformities and risks, as well as monitoring progress in closing previously identified problems, nonconformities and risks.		
	4	Problems, nonconformities and risks identified are analysed comprehensively to determine weaknesses in the management system.		
		Internal auditing focuses on the identification of good practices (which can be considered for use in other areas of the organization) as well as on improvement opportunities.		
	5	A process is established for the review of all internal audit reports to identify trends that can require organization-wide corrective actions or opportunities for improvement.		
The organization involves other interested parties in its audits, in order to help identify additional opportunities for improvement.				
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY - APRIL - JUNE 2019

Table A.27 — Self-assessment of the detailed elements of 10.6

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.6 Self- assessment	1	Self-assessment is not implemented.		
	2	Self-assessment is limited, informal or ad hoc.		
	3	Self-assessment is conducted in a consistent manner and the results are used to determine the organization's maturity and to improve its overall performance.		
	4	Self-assessment is used to determine the strengths and weaknesses of the organization, as well as its best practices, both at an overall level and at the level of individual processes.		
		Self-assessment assists the organization to prioritize, plan and implement improvements and/or innovations.		
	5	Self-assessment is performed by the organization at all levels.		
		The elements of a management system are understood comprehensively, based on the relations between the elements and their impacts on the organization's mission, vision, values and culture.		
		The results of self-assessment are communicated to relevant people in the organization and used to share understanding about the organization and its future direction.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.28 — Self-assessment of the detailed elements of 10.7

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
10.7 Review	1	There is an ad hoc approach to reviews.		
		When a review is performed, it is often reactive.		
	2	Reviews are conducted to assess progress in the achievement of policies, strategy and objectives, and to assess the performance of the management system.		
		Relevant projects and improvement actions are assessed during reviews, in order to evaluate progress against their plans and objectives.		
	3	Systematic reviews of measurable KPIs and related objectives are undertaken at planned and periodic intervals, to enable trends to be determined, as well as to evaluate the organization's progress towards achieving its policies, strategy and objectives.		
		Where adverse trends are identified, they are acted upon.		
		Reviews enable evidence-based decision making.		
	4	The information, resulting from performance measurement, benchmarking, analysis and evaluations, internal audits and self-assessments, is comprehensively reviewed to identify opportunities for improvement, learning and innovation, as well as for identifying any need to adapt the organization's policies, strategy and objectives.		
		The outputs from the reviews are shared with interested parties, as a way of facilitating collaboration and learning.		
	5	Systematic reviews are used to identify opportunities for improvement, learning and innovation of the organization's leadership activities.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENT ONLY - APRIL - JUNE 2019

Table A.29 — Self-assessment of the detailed elements of 11.1

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
11.1 Improvement, learning and innovation — General	1	Improvement activities are done in an informal or ad hoc manner.		
	2	Basic improvement processes, including corrections and corrective actions are in place, based on complaints from interested parties.		
	3	Improvement, learning and innovation efforts can be demonstrated in most products and some key processes.		
	4	Processes are implemented for the ongoing monitoring of external and internal issues that could lead to improvement, learning and innovation, which are aligned with strategic goals.		
	5	Improvement, learning and innovation are embedded as routine activities across the whole organization and are evident in relationships with interested parties.		
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause. ^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.30 — Self-assessment of the detailed elements of 11.2

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
11.2 Improvement	1	Improvement activities are done in an informal or ad hoc manner.		
		Necessary resources to achieve improvement are provided.		
	2	Objectives for the improvement of products or services and processes are provided.		
		A structured approach is applied consistently.		
	3	The focus of improvement processes is aligned with the strategy and objectives, and top management is visibly involved in improvement activities.		
		Schemes are in place to empower teams and individuals to generate strategically relevant improvements.		
		Continual improvement processes include relevant interested parties.		
	4	Improvements and innovation result in learning and further improvements.		
	5	The focus of performance improvement is the sustained ability to learn, change and achieve long-term success.		
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.			
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

Table A.31 — Self-assessment of the detailed elements of 11.3

Subclause	Maturity level		Conclusion	
	Level	Item ^a	YES	Results/comment ^b
11.3 Learning	1	Some lessons are learned as a result of complaints.		
		Learning is on an individual basis, without the sharing of knowledge.		
	2	Learning is generated in a reactive way from the systematic analysis of problems and other information.		
		Processes exist for the sharing of information and knowledge, but still in a reactive manner.		
	3	Top management supports initiatives for learning and leads by example.		
		There are planned activities, events and forums for sharing information.		
		Processes are implemented to determine knowledge gaps and to provide the necessary resources for learning to occur.		
		Systems are in place for recognizing positive results from suggestions and lessons learned.		
	4	Learning is addressed in the strategy and policies.		
		Learning is recognized as a key issue.		
		Networking, connectivity and interactivity are stimulated by top management to share knowledge.		
	5	The organization's learning ability integrates personal competence and the organization's overall competence.		
		Learning is fundamental to the improvement and innovation processes.		
		The organization's culture permits the taking of risks and learning from the mistakes.		
There are external engagements for the purpose of learning.				
^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.				
^b This may include recognition of aspects where the organization is partially meeting a maturity level.				

FDBNS FOR PUBLIC COMMENTS ONLY - APRIL - JUNE 2019

Table A.32 — Self-assessment of the detailed elements of 11.4

Subclause	Maturity level		Conclusion			
	Level	Item ^a	YES	Results/comment ^b		
11.4 Innovation	1	There is limited innovation.				
		New products and services are introduced with no planning of the innovation process.				
	2	Innovation activities are based on data relating to the needs and expectations of interested parties.				
	3	The innovation processes for new products and services are able to identify changes in external and internal issues, in order to plan innovations.				
		Risks associated with planned innovations are considered.				
		The organization supports the innovation initiatives with the resources needed.				
	4	Innovations are prioritized, with balanced consideration of urgency, availability of resources and the organization's strategy.				
		External providers and partners are involved in innovation processes.				
		The effectiveness and efficiency of innovation processes are assessed regularly as a part of the learning process.				
		Innovation is used to improve the way the organization operates.				
	5	Innovation activities anticipate possible changes in the context of the organization.				
		Preventive plans are developed to avoid or minimize the identified risks that accompany the innovation activities.				
		Innovation is applied at all levels, through changes in technology, processes, organization, the management system and the organization's business model.				
	^a Items outlined in levels 3 to 5 are intended to be a progression of thought that is based on the guidance provided in the applicable subclause.					
	^b This may include recognition of aspects where the organization is partially meeting a maturity level.					

FDBNS FOR PUBLIC COMMENTS ONLY - APRIL - JUNE 2019

Bibliography

- [1] ISO 9001, *Quality management systems — Requirements*
- [2] ISO/TS 9002, *Quality management systems — Guidelines for the application of ISO 9001:2015*
- [3] ISO 10001, *Quality management — Customer satisfaction — Guidelines for codes of conduct for organizations*
- [4] ISO 10002, *Quality management — Customer satisfaction — Guidelines for complaints handling in organizations*
- [5] ISO 10003, *Quality management — Customer satisfaction — Guidelines for dispute resolution external to organizations*
- [6] ISO 10004, *Quality management — Customer satisfaction — Guidelines for monitoring and measuring*
- [7] ISO 10005, *Quality management — Guidelines for quality plans*
- [8] ISO 10006, *Quality management — Guidelines for quality management in projects*
- [9] ISO 10007, *Quality management — Guidelines for configuration management*
- [10] ISO 10008, *Quality management — Customer satisfaction — Guidelines for business-to-consumer electronic commerce transactions*
- [11] ISO 10012, *Measurement management systems — Requirements for measurement processes and measuring equipment*
- [12] ISO/TR 10013, *Guidelines for quality management system documentation*
- [13] ISO 10014, *Quality management — Guidelines for realizing financial and economic benefits*
- [14] ISO 10015, *Quality management — Guidelines for training*
- [15] ISO 10018, *Quality management — Guidelines on people involvement and competence*
- [16] ISO 10019, *Guidelines for the selection of quality management system consultants and use of their services*
- [17] ISO 14001, *Environmental management systems — Requirements with guidance for use*
- [18] ISO 14040, *Environmental management — Life cycle assessment — Principles and framework*
- [19] ISO 14044, *Environmental management — Life cycle assessment — Requirements and guidelines*
- [20] ISO/TR 14047, *Environmental management — Life cycle assessment — Illustrative examples on how to apply ISO 14044 to impact assessment situations*
- [21] ISO/TS 14048, *Environmental management — Life cycle assessment — Data documentation format*

- [22] ISO/TR 14049, *Environmental management — Life cycle assessment — Illustrative examples on how to apply ISO 14044 to goal and scope definition and inventory analysis*
- [23] ISO/TR 14062, *Environmental management — Integrating environmental aspects into product design and development*
- [24] ISO 19011, *Guidelines for auditing management systems*
- [25] ISO 19600, *Compliance management systems — Guidelines*
- [26] ISO 22000, *Food safety management systems — Requirements for any organization in the food chain*
- [27] ISO 22301, *Societal security — Business continuity management systems — Requirements*
- [28] ISO 22316, *Security and resilience — Organizational resilience — Principles and attributes*
- [29] ISO 26000, *Guidance on social responsibility*
- [30] ISO 31000, *Risk management — Guidelines*
- [31] ISO 37001, *Anti-bribery management systems — Requirements with guidance for use*
- [32] ISO 39001, *Road traffic safety (RTS) management systems — Requirements with guidance for use*
- [33] ISO 45001, *Occupational health and safety management systems — Requirements with guidance for use*
- [34] ISO 50001, *Energy management systems — Requirements with guidance for use*
- [35] ISO/IEC 27000, *Information technology — Security techniques — Information security management systems — Overview and vocabulary*
- [36] ISO/IEC 27001, *Information technology — Security techniques — Information security management systems — Requirements*
- [37] ISO/IEC 27002, *Information technology — Security techniques — Code of practice for information security controls*
- [38] ISO/IEC IEEE 24748-5, *Systems and software engineering — Life cycle management — Part 5: Software development planning*
- [39] IEC 60300-1, *Dependability management — Part 1: Dependability management systems*
- [40] IEC 61160, *Design review*
- [41] ISO Handbook. *ISO 9001:2015 for Small Enterprises — What to do?* 2016. Available at: <https://www.iso.org/publication/PUB100406.html>
- [42] ISO. *Guidance on the Concept and Use of the Process Approach for management systems*. ISO/TC 176/SC 2/N 544R3, 2008. Available at: https://www.iso.org/files/live/sites/isoorg/files/archive/pdf/en/04_concept_and_use_of_the_process_approach_for_management_systems.pdf

- [43] ISO information and guidance on ISO 9001 and ISO 9004. Available at:
<https://committee.iso.org/tc176sc2>
- [44] ISO 9001 *Auditing Practices Group. Various papers.* Available at
<https://committee.iso.org/sites/tc176sc2/home/page/iso-9001-auditing-practices-grou.html>

FDBNS FOR PUBLIC COMMENTS ONLY APRIL - JUNE 2019

