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Managing for the sustained success of an organization — A quality management approach

Gestion du succès soutenu d'une organisation — Approche de gestion de la qualité

[Revision of second edition (ISO 9004:2000)]

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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.

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The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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ISO 9004 was prepared by Technical Committee ISO/TC 176, *Quality Management and Quality Assurance*, Subcommittee SC 2, *Quality Systems*.

This third edition cancels and replaces the second edition (ISO 9004:2000) which has been technically revised. Managing for the sustained success of an organization is a major change in focus for this standard, leading to substantial changes to its structure and contents.

Annexes A, B and C in this International Standard are for information only.

Introduction

This International Standard provides guidance to management for achieving sustained success for any organization in a complex, demanding, and ever changing, environment.

The sustained success of an organization is demonstrated by its ability to satisfy the needs and expectations of its customers and other interested parties, over the long term and in a balanced way. This can be achieved through awareness of the organisation's environment, the effective management of opportunities and risks, learning from experience, and through the application of improvement and innovation.

This International Standard provides a wider focus on quality management than ISO 9001; it addresses the needs and expectations of all interested parties and their satisfaction, by the systematic and continual improvement of the organization's performance.

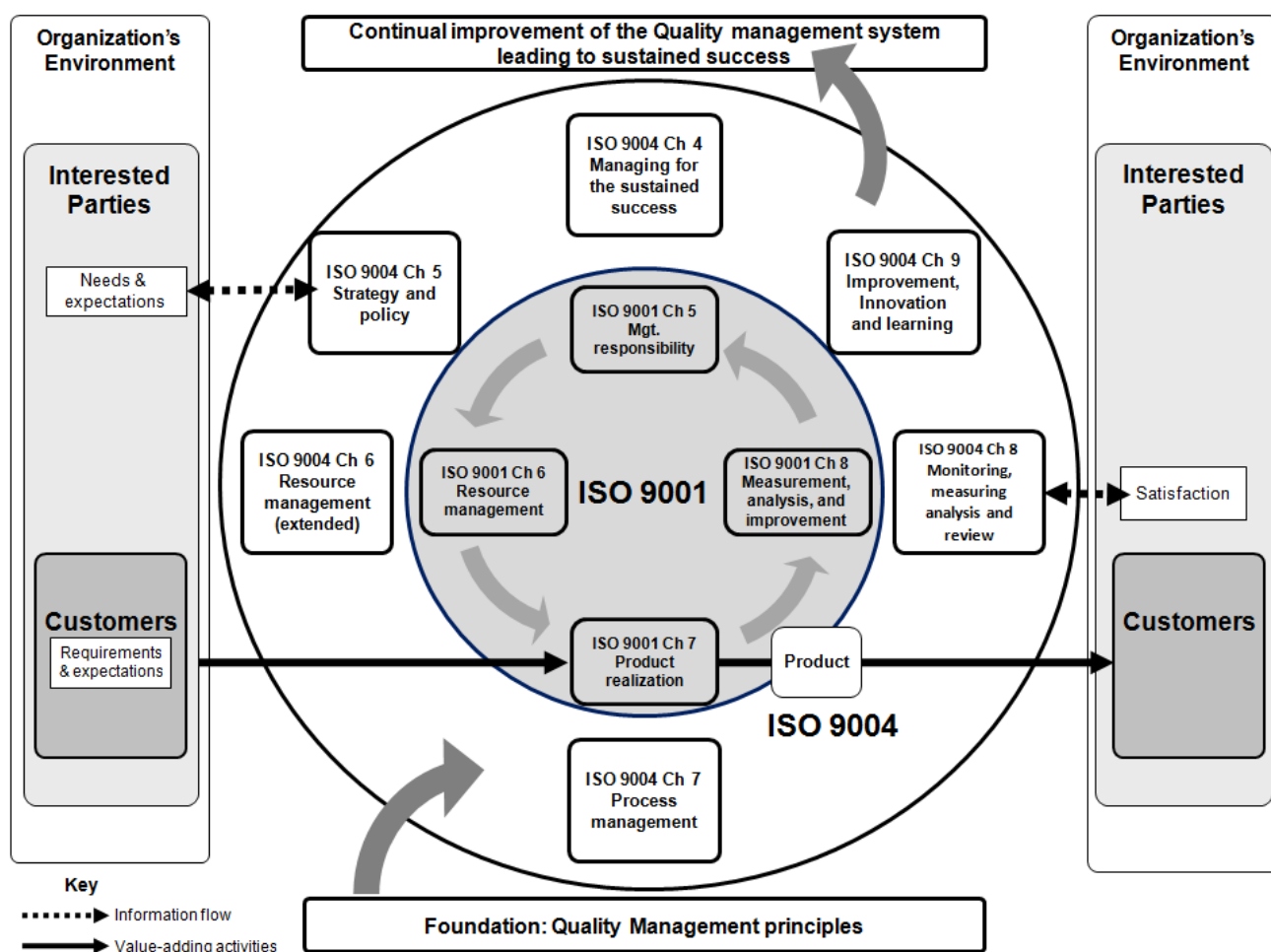


Figure 1. Extended model of a process-based quality management system

This International Standard has been developed to maintain consistency with ISO 9001 and be compatible with the use of other management system standards. Such standards complement each other, but can also be used independently.

Annex A provides a tool for an organization to self-assess its level of maturity and identify opportunities for improvement and innovation.

Annex B provides a description of the Quality Management Principles.

Annex C shows the clause by clause correspondence between ISO 9001 and this International Standard.

Managing for the sustained success of an organization – A quality management approach

1 Scope

This International Standard provides guidance to organizations for achieving sustained success. It is applicable to any organization, regardless of size, type and activity.

This International Standard is not intended for certification, regulatory or contractual use.

2 Normative reference

The following referenced documents are indispensable for the application 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 9000:2005 Quality management systems — Fundamentals and vocabulary.

3 Terms and definitions

For the purposes of this International Standard, the terms and definitions given in ISO 9000 and the following, apply.

3.1

sustained success

<of an organization>

result of the ability of an organization to achieve and maintain its objectives in the long term.

3.2

organization's environment

combination of internal and external factors and conditions that can affect the achievement of an organization's objectives, and its behaviour towards its interested parties

4 Managing for the sustained success of an organization

4.1 General

To achieve sustained success, the organization's management should adopt a quality management approach. The organization's quality management system should support this approach and be based on the principles given in Annex B. Those principles represent the best practices of quality management approach; to achieve sustained success the organization's management should apply them to all its management system(s). The principles described in Annex B cover four main aspects of an organization

- Organizational behaviour : focus on meeting the needs and expectations of all interested parties; managers acting as leaders; and all people in the organization fully involved

- Organizational framework : the process approach and system approach are applied
- Organizational tools throughout the organization : continual improvement processes and fact based decision making
- Organization's relationships with its suppliers and partners: mutually beneficial relationships.

Top management (or the highest level of management in an organization) should develop the organization's manage systems for the efficient use of resources; decision making based on quantitative data; and a focus on customer satisfaction, as well as the needs and expectations of other interested parties. The guidance in this International Standard is based on those principles, with the key focus on balancing the needs and expectations of all interested parties, in order for the organization to benefit in the longer term, by achieving sustained success.

4.2 The organization's environment

Organizations, whether they are large or small, for profit or not-for-profit, operate in an environment that is continually undergoing change; therefore, an organization's management should monitor and analyse the organization's environment constantly to

- obtain data and information on which it can identify the need for change
- make decisions in a timely manner for organizational change and innovation, and
- maintain and/or improve its performance.

4.3 Interested parties

Interested parties are individuals and other entities that add value to the organization, or are otherwise interested in, or affected by, the activities of the organization. Satisfaction of the interested parties is a crucial factor for the achievement of sustained success by an organization.

Table 1. Examples of interested parties and their needs and expectations

Interested party	Key needs and expectations
Customers	Quality of products
Owners / shareholders	Sustained profitability Transparency
Employees	Quality of work environment Recognition
Suppliers and partners	Mutual benefits and continuity
Society	Environmental protection Good business ethics

Although most organizations use similar descriptions for their interested parties (e.g. customers, owners/shareholders, suppliers and partners, people in the organization) the composition of those categories will differ significantly over time and between organizations, industries, nations and cultures.

4.4 Needs and expectations

Each interested party has a variety of needs and expectations that could range from the more abstract, such as reputation and ethics, to the more concrete, such as working conditions, share value and product fitness for use. The needs and expectations of interested parties are ever changing, often very different and in conflict, and can change very quickly. Moreover, the means by which interested party needs and expectations are expressed and met can take a wide variety of forms, including collaboration, cooperation and negotiation; outsourcing, taking an activity offshore, or ceasing an activity altogether; are each means of treating with interested party needs and expectations.

4.5 Sustained success

The organization can achieve sustained success by consistently satisfying the needs and expectations of its interested parties in a balanced way. The management principles that provide the foundation for achieving that objective are the same as those that support ISO 9001; except that in this International Standard their use is being focussed on the long term and they are applied to their full potential to support the extended process-model based quality management system (as described in Figure 1).

An organization's environment will be always changing and uncertain; therefore, in order to achieve sustained success, it will be necessary for its management to

- have a long term planning perspective,
- constantly monitor and regularly analyse the organization's environment to identify
 - alternative, competitive or new product offerings,
 - new interested parties and their changing needs and expectations,
 - emerging markets and technologies,
 - current and expected changes in statutory and regulatory requirements,
 - potential risks, and
 - information to guide improvement and innovation;
- continually engage interested parties and keep them informed of the organization's activities and plans,
- consider mutually beneficial relationships with its suppliers and partners,
- make use of a wide variety of measures, including negotiation, to balance the often competing needs and expectations of interested parties,
- choose and deploy an overall strategy across the organization,
- anticipate future resource needs (including the competences required of its people),
- establish processes appropriate to achieving the organization's strategy, and ensuring that they are capable of responding quickly to changing circumstances,
- regularly assess compliance with its current plans and procedures, and to take appropriate corrective and preventive actions,
- ensure that people in the organization are engaged in opportunities for learning for their own benefit, as well as for maintaining the vitality of the organization, and

- promote continual improvement.

5 Strategy and policy formulation, planning and deployment

5.1 General

To achieve sustained success it is necessary for an organization to establish a mission and vision that are clearly understood, accepted and supported by all interested parties and people in the organization. It is also necessary to unambiguously define short and long term objectives and ensure that all interested parties are fully aware of, and engaged in, achieving the organization's objectives.

Note In this International Standard a "mission" means the description of why the organization exists, and a "vision" is a description of its desired state, i.e. what the organization wants to be and how it wants to be seen by its interested parties.

5.2 Strategy and policy formulation

In order for the organization's mission and vision to be accepted and supported, its strategy and policies need to be clearly articulated. The organization's environment should be monitored continuously, to determine if there is a need to review and (when appropriate) revise, its strategy and policies. In order to adopt and sustain an effective strategy the organization should have processes in place to

- continuously monitor and regularly analyse the organization's environment,
- update its strategy and policies,
- identify possible new interested parties and their needs and expectations,
- review and determine the needs and expectations of its currently identified interested parties,
- identify the outputs necessary to meet the needs and expectations of interested parties in a balanced way,
- assess current capabilities and resources,
- identify and meet future resource and technology needs.

Development and updating of activities for the accomplishment of the strategic objectives should have defined timeframes. Plans and resources should be made available to fulfil those objectives on time.

Note A "strategy" means a plan or method for achieving something, especially over a long period of time. The formulation of an organization's strategy should be based on analyses of demands, products, risks and opportunities, needed resources, etc., while its policies should define its intent and overall directives for subjects such as quality, environmental impact, safety and health, confidentiality, procurement, research and technology, supply and distribution.

5.3 Strategy and policy planning

To give effect to its strategy and policies an organization seeking sustained success should establish and maintain processes that:

- translate its strategy and policies into objectives for all relevant levels of the organization,
- execute activities needed to achieve these objectives,
- evaluate strategic risks,

- establish timelines for each objective and assign a person to be responsible for each action plan, as part of the formulated strategy.

An effective planning process includes activities such as

- anticipating potential conflicts arising from different needs and expectations of interested parties,
- assessing and understanding the organization's current performance and the possible root-causes of problems from the past, in order to avoid recurrence
- keeping interested parties engaged and informed, getting their commitment, keeping them aware of progress against the plans and getting their feedback and improvement ideas, where appropriate,
- reviewing the management system and its components, and updating them as necessary,
- effective monitoring and reporting mechanisms,
- the provision of resources for innovations and other improvements.

5.4 Strategy and policy deployment into processes and organizational structure

To deploy its strategy the organization's management should use management aids, such as a map of the organization's processes and interfaces, to identify the relationships between the processes (see clause 7). A map of processes and their interfaces can assist management review activities by

- setting, aligning and deploying objectives to all relevant levels of the organization,
- showing the systematic relationship between organizational structures and processes,
- providing guidance for prioritizing improvement and other change initiatives.

A map of processes and interfaces can also be used to communicate the strategy, policies, objectives and agreed responsibilities throughout the organization; including the assignment of key performance indicators and process owners to each process (see clauses 7.3 and 8.3.1).

5.5 Communication

Truthful, sincere and ongoing communication of an organization's strategy, policies and plans to people in the organization and to all other interested parties is a necessary condition for sustained success. An effective communication process operates both vertically and horizontally and is tailored in both content and language to the differing needs of recipients, i.e., the same information is likely to be conveyed differently (and often using a different medium) to people within the organization than it would to customers or partners. Communication is of such importance to achieving and sustaining organization's success that the process should have a feedback mechanism, be subject to regular review and be capable of responding quickly to changed circumstances.

6 Resource management

6.1 General

To meet the needs and expectations of its interested parties an organization has to use a wide variety of resources.

The organization's management should identify the internal and external resources that are needed for the achievement of its objectives in the short and long term. The organization's policies and methods for resource management should be consistent with its strategy.

To ensure that those resources (such as materials, energy, knowledge, finance and people) are used effectively and efficiently, it is necessary to have processes in place to provide, allocate, monitor, optimize, maintain and protect the resources needed.

To ensure the availability of the resources for the future activities, the organization's management should identify and evaluate the risks of their potential scarcity, and continually monitor existing use of resources to find opportunities for improvement of their use in processes. Next to this, a search for new resources, new processes, and new technologies should take place.

The organization's management should periodically review the availability and suitability of the identified resources, including outsourced resources, and take action, as necessary. The results of these reviews should also be used as inputs into the organization's reviews of its objectives, plans and strategy.

6.2 Financial resources

The organization's management should determine its financial needs and acquire the necessary financial resources for its current operations and for the future. Financial resources can be in many different forms such as cash, securities, or other financial instruments.

The organization's management should establish, implement and maintain processes for monitoring and controlling the effective allocation and use of financial resources.

Note: ISO 10014 gives guidelines to help an organization realize financial and economic benefits from its management system.

6.3 Human resources

6.3.1 Management of Human Resources

People are a significant resource in all organizations and their full involvement enables their abilities to create value for the interested parties. The organization's management should, through its leadership, create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives. Because people are increasingly becoming the organization's most valuable and most critical resource, it is necessary to ensure that their work environment encourages personal growth, learning and knowledge transfer. Human resource management should be performed through a planned, transparent, ethical and socially responsible approach. The organization's management should ensure that the people understand the importance of their contribution and roles.

The organization's management should empower the people, where appropriate, to

- translate the organization's strategic and process objectives into their own individual job objectives, and to establish plans for their realization,
- identify constraints to their performance,
- accept ownership and responsibility to solve problems,
- evaluate their performance against their own individual job objectives,
- actively seek opportunities to enhance their competence and experience, and the sustained success of the organization, and
- share information, competence and experience within the organization.

6.3.2 Competence of people

In order to ensure that the organization has the necessary competence, the organization's management should establish, implement and maintain processes to identify, develop and improve the competence of its people through the following steps

- identifying the professional and personal competences the organization will need in the short and long term, according to its mission, vision, strategy, policies, and objectives,
- identifying the competences currently available in the organization and the gaps between what is available and what is needed currently and will be needed in the future,
- maintaining the competences that have been acquired,
- implementing actions to improve and/or acquire competences (e.g. such as training programmes, planned personnel administration and new external acquisitions) to close the gaps, and
- reviewing and evaluating the effectiveness of the actions that were taken to ensure that the necessary competence has been achieved.

The above actions should form a part of the organization's human resources development plan.

Note: See ISO 10015 for further guidance on competence and training.

6.3.3 Involvement and motivation of people

The organization's management should motivate its people to understand the significance and importance of their responsibilities and activities in relation to the creation and provision of value for the organization and its interested parties.

To enhance its people's involvement and motivation, the organization's management should consider issues such as:

- developing a mechanism to share and use the competence of its people, e.g. a scheme for collecting ideas for improvement,
- introducing an appropriate recognition and reward system based on evaluations of its people's accomplishments,
- establishing a skills qualification system and career planning, to promote self-development,
- continually reviewing the level of satisfaction and needs of its people, and
- providing opportunities for mentoring and coaching.

Note: For more information about the involvement of people see the related quality management principle in Annex B.

6.4 Suppliers and partners

6.4.1 Suppliers, partners and partnerships

The organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value.

The organization's management should consider a partnership as a particular form of relationship with a supplier, where the supplier even may invest in and shares the profits or losses of the organization's area of

activity. Partners can be suppliers of products, service providers, technological and financial institutions, governmental and non-governmental organizations or other interested parties of the organization. The supplier as a partner can contribute with any type of resource, and this should be defined in a partnership agreement.

The organization's management should regard its partners as collaborators in providing products to its customers and should give consideration to issues such as

- the provision of information to partners, as appropriate, to maximise their contributions,
- supporting partners, in terms of providing them with resources (such as information, knowledge and shared training),
- the sharing of profits or losses with partners, and
- improving the performance of partners.

Note: For more information about mutually beneficial supplier relationships see the related quality management principle in Annex B.

6.4.2 Suppliers and partners – selection, evaluation and improvement of their capabilities

The organization's management should establish, implement and maintain processes to identify, select and evaluate its suppliers and partners, and to continually improve their capabilities, to ensure that the products or other resources provided meet the needs and expectations of the organization.

In selecting and evaluating partners, and continually improving their capabilities, the organization's management should consider issues such as

- their contribution to the organization's activities and ability to create customer value,
- the enhancement of its own capabilities that can be achieved through collaboration with partners, and
- the risks connected with relationships with partners.

Together with its partners, the organization should seek to continually improve the quality, price and delivery of products provided by the partners and the effectiveness of their management systems, based on the results of evaluations of their performance.

The organization's management should review and strengthen its relationships with its partners continually, while considering the balance between its short and long-term objectives.

6.5 Infrastructure

The organization's management should plan, provide and manage its infrastructure effectively. It should periodically assess the continued suitability of its infrastructure in meeting organizational objectives. Appropriate consideration should be given to such factors as:

- dependability (including consideration of availability, reliability, maintainability etc.),
- safety and security,
- appropriateness to products and processes,
- efficiency, cost, capacity and ergonomics,

- the environmental impact of its infrastructure in relation to its objectives.

The organization's management should identify and assess the risks associated with its infrastructure and take action to mitigate the risks, including the establishment of adequate contingency plans.

Note: For more information about environmental impacts see the ISO 14000 series of standards.

6.6 Work environment

The organization's management should provide and manage a suitable work environment to maintain the sustained success of the organization and competitiveness of its products. A suitable work environment, as a combination of human and physical factors, should include consideration of

- creative work methods and opportunities for greater involvement, to realize the potential of people in the organization,
- safety rules and guidance, including the use of protective equipment,
- ergonomics,
- workplace location,
- social interaction,
- facilities for people in the organization,
- heat, humidity, light, airflow, and
- hygiene, cleanliness, noise, vibration and pollution.

The work environment should encourage productivity, creativity and well-being for the people who are working in or visiting the organization's premises (e.g. customers, suppliers, and partners). At the same time the organization's management should ensure that its work environment complies with all applicable statutory and regulatory requirements and addresses applicable standards (such as those for environmental and occupational health and safety).

6.7 Knowledge, information and technology

The organization's management should establish, implement and maintain processes to manage knowledge, information and technology as essential resources. The processes should address how to identify, obtain, maintain, protect, use and evaluate the need for these resources. The organization's management should share such knowledge, information and technology with its interested parties, as appropriate.

The organization should consider how its current knowledge base is identified and protected. Further it should consider how it will obtain the knowledge needed to meet the present and future needs of the organization from internal and external sources, such as academic and professional institutions. There are many issues to consider when defining how to identify, maintain and protect knowledge, such as processes to

- address learning from mistakes,
- capturing the experience of people in the organization,
- gathering knowledge from customers, partners and suppliers,
- capturing undocumented knowledge (tacit and explicit) that exists within the organization,
- managing data and records.

Processes for maintaining and protecting knowledge are important to the sustained success of an organization.

The organization's management should establish, implement and maintain processes to gather reliable and useful data and for converting the data into the information necessary for decision making. This includes the processes needed for the storage, security protection, communication and distribution of data and information to all relevant parties. The organization's information and communication systems need to be robust and accessible, to ensure their capability. The organization should secure the safety, integrity, confidentiality and availability of information relating to its performance, process improvements, and on progress towards the achievement of sustained success.

The organization's management should consider technology options to enhance the organization's performance in areas such as product realization, marketing, benchmarking, customer interaction, supplier relations and outsourced processes. The organization's management should establish processes for assessing

- the current levels of technology inside and outside the organization, and on emerging trends.
- economic cost/benefits,
- the evaluation of risks related to changes of technology,
- the competitive environment, and
- the organization's agility to react to customer requirements, to ensure that the organization remains competitive.

6.8 Natural resources

The availability of natural resources is one of the factors that can influence an organization's sustained success and ability to meet the requirements of its customers and other interested parties. The organization's management should consider the risks and opportunities related to the availability and use of natural resources (such as water, oil, minerals and raw materials) in the short term, as well as in the long term.

The organization's management should give appropriate consideration towards the integration of environmental protection aspects into product design and development, as well as for the development of its processes, to mitigate identified risks. Applicable statutory and regulatory requirements should be also taken into account.

The organization should seek to minimize environmental impacts over the full life cycle of its products and its infrastructure; this should be a key consideration for the organization in its design, manufacture of a product or execution of service, distribution, product use and disposal.

Note: For more information see the ISO 14000 series of standards on environmental management.

7 Process management

7.1 Managing the organization's processes

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.

The organization's management should proactively manage all processes, including outsourced processes, to ensure that they are effective and efficient, in order to achieve the mission and objectives. This can be

facilitated by adopting a “process approach” which includes establishing processes interdependencies, constraints and shared resources.

Processes and their interrelationships should be reviewed on a regular basis and suitable actions taken for their improvement.

The processes should be managed as a system, by creating and understanding the networks of processes, their sequences and interactions. The consistent operation of this system is often referred to as the “systems approach to management”. The network can be described in a map of processes and the interfaces related to the processes.

Note: For further information on the process approach see the related quality management principle in Annex B; ISO 9000:2005 clause 2.4; the ISO 9000 Introduction and Support Package document “Guidance on the Concept and Use of the Process Approach” (available from www.iso.org/tc176/sc2).

7.2 Process planning

The organization’s management should identify and plan the organization’s processes, and determine the activities that are necessary for providing products that will continue to meet the needs and expectations of customers and other interested parties, on an ongoing basis. The processes should be planned to be in accordance with the organization’s strategy and should address management activities, the provision of resources, product realization, measurement and review activities.

The organization’s process interrelationships should define how coordination for planning, implementation, monitoring, evaluation, improvement and innovation occurs among its processes.

In the organization’s planning processes, consideration should be given to

- analyses of the organization’s environment,
- short and long term forecasts of market developments,
- possible financial and other risks,
- statutory and regulatory requirements,
- the internal activities of the organization, and
- the needs and expectations of its people.

For the planning of individual processes, the organization’s management should consider aspects such as

- inputs and outputs,
- resources and information,
- activities and methods,
- measurement, monitoring and analysis, and
- improvement.

Process planning can determine the need for the organization to develop or acquire new technologies, develop new products or disseminate new product features, for added value.

7.3 Process responsibility and authority

The organization's management should appoint, for each process, a person with defined responsibilities and authorities to implement, maintain, control and improve the process and its interaction with other processes; this individual is often referred to as the "process owner".

The management should ensure that the responsibilities, authorities and roles of process owners are recognized throughout the organization, and that the people associated with the process have the competences needed for the tasks and activities involved.

8 Monitoring, measurement, analysis and review

8.1 General

To achieve sustained success in an ever changing and uncertain environment it is necessary for the organization's management to monitor and regularly analyse the organization's environment to identify

- alternative, competitive or new product offerings,
- new interested parties and their changing needs and expectations,
- emerging markets and technologies,
- current and expected changes in statutory and regulatory requirements,;
- potential risks, and
- information to guide improvement and innovation.

The management should also have a short and long term planning perspective for the organization's management system. In order for the organization to monitor the continuing suitability, adequacy and effectiveness of the management system, it should have processes in place for:

- monitoring the organization's performance,
- measuring the outcome from and within processes,
- analysing received information and
- reviewing the information collected within the organization, as well as information from external sources,
- assessing the integrity and validity of the monitoring and measurement processes being used.

8.2 Monitoring

The organization's management should establish, implement and maintain processes for monitoring the organization's environment, and for collecting and managing the data and information that is necessary for

- identifying and understanding the present and future needs and expectations of all defined interested parties,
- assessing strengths, weaknesses, opportunities and threats, such as those of
 - alternative, competitive or new product offerings,

- current and emerging markets and technologies,
- current and expected changes in statutory and regulatory requirements,
- understanding the labour market and its effect on the loyalty of people in the organization,
- understanding the social, economic, ecological trends and local cultural aspects relevant to the organization's activities,
- identifying and developing resources in the long term, including natural resources,
- assessing current organizational and process capabilities (see annex A).

8.3 Measurement

8.3.1 General

The organization's management should assess the organization's progress in achieving its planned results against its vision, mission, policies and objectives, at all levels and in all relevant functions in the organization. A measurement and analysis process should be used to monitor this progress, as it can provide the organization with the necessary data and information for effective decision making. The selection of appropriate key performance indicators and monitoring methodology is critical for the success of the measurement and analysis process.

The organization should use effective tools to gather information and data for use in performance evaluations. Information concerning the data to be gathered should be communicated to the process owners.

The methods used for collecting information and data regarding key performance indicators should be practicable and appropriate to the organization. Typical examples include

- reporting on business performance, such as financial or sales results,
- risk assessments and risk controls,
- interviews, questionnaires and surveys on customer and other interested parties' satisfaction,
- reports and statistics provided by external agencies,
- benchmarking
- performance reviews, including for suppliers, and
- the monitoring and recording of process variables and product characteristics.

8.3.2 Key performance indicators

The factors that are within the control of the organization and critical to its sustained success should be expressed as performance indicators. These indicators allow the organization to identify, monitor and predict trends, set measurable objectives and take preventive and corrective actions when necessary. The organization's management should select key performance indicators (KPIs) as a basis for taking strategic decisions. The KPIs should in turn be suitably cascaded as performance indicators at relevant functions and levels within the organization, to support the achievement of the top level objectives.

KPIs should be appropriate to the nature and size of the organization and to its products, processes and activities. They need to be consistent with the objectives of the organization, which should, in turn, be

consistent with its strategy and policies (see 5.2). Specific information relating to risks, and opportunities should be considered when selecting the KPIs.

In selecting the KPIs, the organization's management should ensure that they provide information that is measurable, accurate and reliable, and that it can be acted upon. Such information should take into account

- the needs and expectations of customers and other interested parties,
- the importance of individual products to the organization, both now and in the future,
- the effectiveness and efficiency of processes,
- the effective and efficient use of resources,
- profitability and financial performance, and
- statutory and regulatory requirements, where applicable.

8.3.3 Internal audit

Internal audits are conducted to determine the levels of compliance of the organizations' management system against given criteria (e.g. against the requirements of ISO 9001). The results of internal audits are usually expressed in the form of compliance reports, opportunities for improvements and nonconformities.

Internal audits give a valuable opportunity for enhanced understanding of the organization, its strengths and weaknesses. They can be used as an effective and efficient tool in the organization's striving for improvement and sustained success.

Internal audits should assess the implementation and effectiveness of the organization's quality management system. They can also include auditing against additional management systems standards (e.g. ISO 14001 for environmental management), as well as addressing specific requirements relating to specific issues or market sectors.

To be effective, internal audits should be planned and conducted in a consistent manner, by competent personnel, in accordance with an audit plan that is reflective of the criticality of specific processes and individual objectives.

Internal auditing can be an effective process for identifying problems, risks and nonconformities that are subsequently addressed through root cause analysis and the development and implementation of preventive and corrective action plans. Verification that the actions taken have been effective can be determined through an assessment of their influence on the organization's improved ability to fulfil its objectives.

Outputs of internal audits provide a reliable source of information that is useful for

- addressing problems and nonconformities,
- identifying opportunities for improvement,
- benchmarking good practices, and
- increasing awareness of interrelations within the management system.

The results of internal audits are an essential input for management reviews.

Note 1 See ISO 19011 for further guidance on auditing.

Note 2 The organization's management should also take the results of other audits, such as second and third party audits, as feedback for corrective actions and improvements.

8.3.4 Self-assessment

Self-assessment is a comprehensive and systematic review of the organization's activities and its performance in relation to its degree of maturity (see Annex A).

Note The degree, or level, of an organization's "maturity" describes its position on a scale that has immature, inconsistent organizational activities at the lower end, to mature, consistent organizational activities at the higher end. An organization's maturity will be determined by its performance in relation to its vision, mission and strategy; systems, organizational structures and tools used; and relations with interested parties.

Self-assessment can be used to determine the relative strengths and weaknesses of the organization in terms of its performance as well as its practices both at an overall level and at the level of its individual processes, with the objective of being able to prioritize, plan and implement improvements.

Self assessment is usually carried out by a team of people representing cross functional as well as hierarchal interests within the organization.

The results of self-assessments support

- the continual improvement of the organization's overall performance,
- progress towards achieving and maintaining sustained success for the organization,
- innovation in its processes, products and organizational structure, when appropriate,
- recognition of best practices and opportunities for improvement.

The results of self-assessments should be an input to management reviews

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

Note: ISO 10014 provides a self assessment tool directed towards the financial and economic benefits of a Quality Management System for an organization.

8.3.5 Benchmarking

Benchmarking is a measurement and analysis methodology, which an organization can use to search for the best practices inside and outside the organization, with the aim of improving its own performance. Benchmarking can be applied to strategy and policies, operations, processes, products and organizational structures.

There are several types of benchmarking such as

- internal benchmarking within the organization,
- competitive benchmarking of performance or processes with competitors,
- generic benchmarking; comparing strategies, operations or processes with unrelated organizations.

Successful benchmarking depends on factors such as

- support by the organization's leadership (as it involves mutual knowledge interchange between the organization and its benchmark partners),
- a methodology used to apply benchmarking,

- estimation of benefits versus costs, and
- understanding of the characteristics of the subject being investigated, to allow a correct comparison to the current situation in the organization.

When the organization intends to practice benchmarking it should establish, implement and maintain a methodology defining rules for items such as

- definition of the scope of the subject for benchmarking.
- choosing benchmark partner(s), as well as any necessary communications and confidentiality policies,
- determination of indicators for the characteristics to be compared, and the data collection methodology to be used,
- the collection and analyses of data,
- determination of performance gaps and the indication of potential improvement areas,
- the establishment, implementation and monitoring of corresponding improvement plans, and
- the inclusion of gathered experience into the organization's knowledge base and learning process (see 6.7).

8.4 Analyzing

The organization's management should analyze the organization's environment, identify risks and opportunities, and establish plans to manage them. The organization's management should monitor and maintain relevant data and information, and analyze their potential impacts on its strategy and policies.

The data and information that are gathered should enable informed decisions on strategy and policy issues such as

- potential changes in the needs and expectations of interested parties in the long term,
- those existing products and activities that provide the most value for its interested parties currently,
- those products and processes that the organization will need to realize in the future to meet the changing needs and expectations of its interested parties,
- the evolving demands for the organizations' products in the long term,
- the influence of emerging technologies on the organization,
- new competences that will be needed, as determined from analyses by the organization,
- changes that can be expected in the statutory and regulatory environment, labour and other resource markets, which will affect the organization.

8.5 Review of information gathered via monitoring and measurement

The organization's management should use a systematic approach to reviewing available information and for ensuring that the information is used for decision making (see 4.2). Sources of information can include data collected from

- the monitoring of the organization's environment,

- measures of the organisation's performance, including the values of key performance indicators,
- assessments of the integrity and validity of the measurement processes, the results of internal audit and self-assessment activities, and
- feedback from interested parties.

The reviews should evaluate the results achieved against the applicable objectives.

Reviews should be performed at planned and periodic intervals, to enable trends to be determined, as well as the organization's progress towards achieving its objectives; additionally, they should be used to identify opportunities for improvement, innovation and learning. Reviews should address the assessment and evaluation of improvement activities performed previously, including aspects of adaptability, flexibility and responsiveness in relation to the organization's vision and objectives.

Effective reviews of data should assist in the achievement of planned results.

The outputs of the reviews can be used for benchmarking internally between processes, or to show trends over time, and can be used externally against the results achieved by other organizations in the same or other sectors.

The outputs of the reviews can give an indication of whether adequate resources have been provided, and how effectively resources have been used in achieving the organization's objectives.

The outputs of the reviews should be presented in a format that can facilitate the implementation of process improvement activities.

9 Improvement, innovation and learning

9.1 General

Improvement, innovation and learning are essential for the sustained success of an organization. .

Note "Improvement" relates to changes to existing factors (for example systems, organizational structures, processes, technologies, resources, competencies, and products), whereas "innovation" relates to new factors.

An improvement activity where the current concept is still used after the improvement has been implemented can result in either a gradual change in the performance of a process, or a significant change (a significant change is often referred to as a "breakthrough" improvement).

An innovation activity where the current concept is changed for a new one, would most often deliver a significant change in performance or functionality; however, in some cases, the change in performance could be limited in the initial stages of the innovation, with the expectation that there will be significant change in the later stages.

The key elements for effective and efficient improvement, innovation and learning processes are the methods used, sources of information, speed, timeliness, flexibility, competent and motivated people, and the leadership by management of the people involved in these processes.

Improvement, innovation and learning should be applied to the organization's:

- products,
- processes and their interfaces,
- organizational structures,
- management system,
- human aspects and culture, and

- infrastructure, work environment and technology
- organization's relations with its interested parties.

The foundation for effective and efficient improvements and innovations is the ability and enablement of the people in the organization to make informed judgments on the basis of data analyses and the incorporation of lessons learnt.

9.2 Improvement

Improvement activities can range from small-step ongoing continual improvements at a work place to significant improvements of the entire organization.

The organization's management should use the results of their analyses to define objectives for the improvement of products, processes, organizational structures and management system (see clauses 4, 5 and 8).

The improvement process should follow a structured approach, such as the "Plan-Do-Check-Act" (or PDCA) methodology, and should be applied consistently with the process approach for all processes.

The organization's management should ensure that continual improvement becomes established as a part of the organizational culture through:

- providing the opportunity for people in the organization to participate in improvement activities,
- providing the necessary resources,
- establishing recognition and reward systems for improvement, and
- continual improvement of the effectiveness and efficiency of the improvement process.

Note: For more information about continual improvement see the related quality management principle in Annex B.

9.3 Innovation

Changes in the organization's environment could require innovation in order to meet the needs and expectations of its interested parties. The organization's management should ensure that the organization's strategy identifies and supports the need for innovation and the provision of related resources.

Innovation can be applied to issues at all levels, through changes in

- technology or product (i.e. innovations that not only respond to the changing needs and expectations of customers or other interested parties, but also anticipate possible changes in the organization's environment and product lifecycles),
- processes (i.e. innovation in the methods for product realization, or innovation to improve process stability and reduce variance),
- the organization (i.e. innovation in its constitution and organizational structures), and
- 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 environment).

The timing for the introduction of an innovation will usually be a balance between the urgency with which it is needed versus the resources that are made available for its development; consequently, the organization's

management should use its strategy to plan and prioritize innovations. The organization's management should support the innovation initiatives with the resources needed.

The establishment, implementation and management of processes for innovation within the organization can be influenced by

- the urgency of the need for a specific innovation,
- innovation objectives and their impact on products, processes and the organizational structures,
- its management's commitment to innovation,
- a willingness to challenge and change the status quo, and
- the availability or emergence of new technologies.

The organization's management should assess the risks accompanying the innovation activities and prepare preventive actions to avoid or minimize the risks, including contingency plans where necessary.

9.4 Learning

The organization's management should encourage its improvement and innovation processes, through learning and the sharing of knowledge, skills and experience.

The organization can use different approaches for capturing knowledge, such as

- collecting information from various internal and external events and sources,
- gaining insights through in-depth analyses of the information that has been collected,
- learning from mistakes, or from any problems or incidents that nearly led to mistakes (and especially where a mistake was avoided by the adequate and timely reactions of the people involved).

Development of the organization's learning ability depends on its ability to integrate personal competence and organizational competence.

The organization's management should be committed to establishing a culture of learning. To learn effectively and to make learning a part of the organization's culture, its management should:

- support initiatives in learning, and demonstrate its leadership by its own behaviour,
- stimulate networking, connectivity, interactivity and sharing of knowledge both inside and outside the organization,
- make available systems for learning and sharing of knowledge,
- recognize and support the improvement of people's competence,
- appreciate creativity, support diversity, and the use of errors or mistakes as opportunities for improvement,
- recognize and reward positive results from the processes of learning and sharing of knowledge,
- demonstrate a readiness to accept suggestions/lessons from internal and external sources.

Rapid access to, and use of, such knowledge will enhance the organization's ability to manage and maintain its sustained success.

Annex A (informative)

A self-assessment tool

A.1 Introduction

Self-assessment is a methodology for discovering the potential of an organization.

An organization should use self-assessment to determine its maturity levels for sustained success, identify improvement and innovation opportunities, set priorities for improvements, and establish action plans.

The results of an organization's assessments can be a valuable input into its management review process; consequently such assessments should be conducted periodically.

The self-assessment tool given in this annex is based on the guidelines of this International Standard and includes separate assessment tables for key elements and details.

A. 2 Maturity

A mature organization is one that performs effectively and efficiently, and achieves sustained success. This will be based on its ability to

- understand the needs and expectations of interested parties, and changes in the organization's environment,
- create its policies and strategies,
- set and deploy relevant objectives,
- manage its processes and resources,
- demonstrate confidence in its people, leading to increased motivation, commitment and involvement,
- encourage openness towards suppliers and partners aiming for mutual benefits and increased value for all parties.

The degree, or level, of an organization's "maturity" describes its position on a scale that has immature, inconsistent organizational activities at the lower end, to mature, consistent organizational activities at the higher end. An organization's maturity will be determined by its performance in relation to its vision, mission and strategy; systems, organizational structures and tools used; and relations with interested parties.

This self-assessment tool uses five maturity levels. The organization's management should review the organization's performance against each of them, identify its current maturity level, and review the criteria given for the higher levels. This can assist the organization's management to understand and determine the improvements to be performed, in order to reach the next, and higher, levels of maturity.

As the organization achieves each level of the maturity framework it can gain a greater understanding of what is needed to improve its performance and its management system.

A.3 Top Management self-assessment

This self-assessment should be performed by an organization's top management to obtain a quick overview of the organization's position in relation to its strategy.

Table A.1 is based on the guidance given in clauses 4 to 9 of this International Standard. It uses different scenarios to relate the key elements of the organization's performance to corresponding maturity levels for sustained success.

Note It should take approximately one hour to complete the self-assessment, including the time needed for correlating the results against the relevant sections of this International Standard.

A.4 Detailed self-assessment

This self-assessment should be performed by a cross functional team, that includes organization's process owners, to assess the capabilities of the organization.

Tables A.2.1 to A.2.5 gives different characteristics for an organization and relates these to the guidance given in clauses 5 to 9 and to corresponding maturity levels for sustained success.

Note It should take approximately one day to complete such an self-assessment, including the time needed for correlating the results against the relevant sections of this International Standard.

A.5 Using the self-assessment tools

An example of a step by step methodology that an organization can consider for conducting a self-assessment is to:

- a) define the scope of the self-assessment and the type of assessment to be conducted, i.e. either a top management assessment (see table A.1) (for a quick overview) or a detailed one (see table A.2). The different types of self-assessment can be conducted either in isolation, at the same time, or in a consecutive manner;
- b) depending on the type of self –assessment to be performed, either establish a cross-functional team (or another appropriate team, depending on the structure of the organization) or a top management team, and appoint a facilitator to help in the use of the self-assessment tool and support the self-assessment process;
- c) ask each team member to perform the self-assessment by comparing the present situation in the organization to the descriptions of the scenarios, starting with level 1 and ticking the sentences which they believe the organization can demonstrate it has achieved and “climbing” to higher levels, as far as the capabilities described are clearly demonstrated. This will enable the team members to identify their views of the current maturity levels in the organization, which should be the highest level fully achieved without there being any “gaps” in the required capabilities. Team members should simultaneously identify improvement and innovation opportunities, where possible.

Note The performance described in the higher maturity levels for sustained success, include all the attributes of all the lower levels.

- d) hold a final meeting of the team members, to reach consensus about actual maturity levels, desired maturity levels, suitable improvement actions and their timing. During this step the organization's management should distribute the responsibilities for the chosen actions, estimate and provide the resources needed and identify any potential risks.
- e) significant learning can be achieved from comparing the output of the results of both types of assessment (if both self-assessments are made).

An organization is likely to be in different maturity levels for each element. A review of the gaps between the current level and the next level will help the organization's management in planning and prioritizing the improvement and innovation actions needed to move to the higher level.

A.6 Self-assessment results and improvement planning

The completion of a self-assessment should be recognized as an important step in identifying opportunities for the future development of the organization.

The information gained from such a self-assessment should be used

- 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),
- to identify opportunities for improvement and innovation, and
- as an input into the planning of future self-assessments.

An analysis of the results, against the guidance in the clauses 4 to 9, should be taken forward into the planning process of the organization.

For ease of understanding and communication, the results of self-assessments should be presented in a way that gives a quick visualization of the organization's maturity level against the guidance in clauses 4 to 9 (for example in a spider or a radar diagram). This will assist in the identification and prioritization of opportunities for improvement and innovation, as well as in identifying those that can yield the maximum improvement at the lowest cost. The consistent use of this type of presentation can present an ongoing illustration of the organization's progress.

**Table A.1 – Key elements self-assessment;
Correlation between key elements and maturity levels**

Key element	Maturity level				
	1. Basic	2. Proactive (Basic + ...) <i>{Equivalent to ISO 9001}</i>	3. Flexible (Proactive+...)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
Is your focus on? Learn from clauses 4, 5 and 8 and move on	Products, shareholders and some customers	Customers, statutory and regulatory requirements	Some additional interested parties and people	Balanced focus on current interested parties	Balanced focus on emerging interested parties
Is your approach? Learn from clauses 4,5, 6, 7, 8, and 9 and move on	Reactive	Process based	Efficient process management enabling flexibility	Effective interrelated processes approach including key suppliers and partners	Effective interrelated process approach that includes innovation
What triggers improvement? Learn from clauses 5, 6, 7, 8 and 9 and move on	Complaints and financials	Customer satisfaction data and key performance indicators	Inputs from suppliers, partners and own people	Inputs from other interested parties and analysis of social, environmental, and economic issues and trends	Inputs from emerging interested parties
What activities and systems are in place? Learn from clauses 5, 6, 7, 8 and 9 and move on	Basic working procedures in place	Quality management system implemented	Effective and efficient integrated management system	Agility, flexibility and innovation are supported by the management system	Management system supported by benchmarking
How are your results achieved? Learn from clauses 5, 6, 7 and 8 and move on	Anecdotal (random) evidence of results	Some predictable results	Predictable results	Consistent, positive results, sustained trends	Results above sector average achieved and maintained in the long term
How does learning occur? Learn from clause 9 and move on	Individual and anecdotal	Systematic learning from successes and failures	Shared learning inside the organization	Continual improvement based on learning and a culture of sharing	Learning shared with relevant interested parties

Table A.2.1 – Detailed self-assessment against clause 5

Clause	Maturity level				
	1. Basic	2. Proactive (Basic + ...)	3. Flexible (Proactive+...)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
5 Strategy and policy 5.1 General 5.2 Strategy and policy formulation	<p>Strategies policies and objectives are not fully defined, or are only defined in an ad hoc manner.</p> <p>Inputs into policy and strategy formulation are ad hoc, and only product related aspects are formulated.</p>	<p>A structured process for the formulation of strategy and policies is in place.</p> <p>The process of strategy and policy formulation includes an analysis of the needs and expectations of customers along with an analysis of statutory and regulatory requirements.</p>	<p>The process of strategy and policy formulation has evolved to include an analysis of the needs and expectations of a broader range of interested parties.</p> <p>Beneficial outcomes can be linked to past strategic approaches</p>	<p>Strategy, policies and objectives are formulated in a structured manner.</p> <p>Strategy and policies cover aspects relating to relevant interested parties.</p> <p>The organisation's processes are consistent with the needs of its interested parties.</p>	<p>It can be demonstrated that past strategies have resulted in the achievement of the organisation's objectives</p> <p>Processes can be shown to have optimised the contributions of interested parties</p>
5.3 Strategy and policy planning	<p>The planning process is organized in an ad hoc manner.</p> <p>Strategic plans are defined for product realization.</p>	<p>Plans are developed in accordance with the balance of the needs and expectations of customers.</p> <p>Strategy and policies are translated into objectives for different levels in the organization.</p>	<p>Plans are developed after assessing the needs and expectations of relevant interested parties.</p> <p>Measurement of progress towards achievements of the organisation's strategic objectives is undertaken.</p> <p>Positive and negative variances to plan are analyzed and acted upon</p> <p>The planning process includes consideration of changing external trends and interested parties needs; it makes necessary re-alignments when needed.</p>	<p>A balance between the plans and the availability of resources can be demonstrated.</p> <p>Risks and opportunities are fully evaluated and considered before plans are confirmed</p> <p>Structured and periodic reviews of planning processes are in place.</p> <p>Measurement of progress towards the achievement of objectives demonstrates that positive trends exist on many measures.</p>	<p>Analysis of past performance can show that the organisation has succeeded in overcoming emerging or unforeseen challenges.</p> <p>Interested parties are engaged and contributing to the organization's success; there is confidence that the level of their contributions will be maintained.</p> <p>There is confidence that successes can be sustained.</p> <p>Effective monitoring and reporting mechanisms are in place, including feedback to the planning process from interested parties.</p>

Table A.2.1 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic + ...)	3. Flexible (Proactive+...)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
5.4 Strategy and policy deployment into processes and organizational structures	Short term objectives are used in daily operations.	A quality management system is implemented. Strategy and policies are evolving; customer needs are deployed into clearly defined processes. Objectives are well defined.	A process owner is defined for each process. Process maps and operating standards are defined and integrated; they are the basis for performance reviews and audits for each process.	Performance targets are defined for each process as needed, consistent with the strategy. Process measurement systems are effective, integrated and acted upon.	The management system is reviewed and updated, following changes in the strategy.
5.5 Communication	Communication takes place in a reactive way,.	A process for external and internal communication is defined and implemented.	Effective systems are in place to communicate the changes in strategy and plans to relevant people within the organization.	Changes in policy are communicated to relevant interested parties, and to all levels of the organization.	The effectiveness of the communication process is reviewed periodically. There is evidence that communication processes meet the needs of interested parties.

Table A.2.2 Detailed self-assessment against clause 6

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
6 Resource management 6.1 General	Resources are defined and assigned in an ad-hoc way	A process for the planning of resources, including their identification, provision and monitoring is implemented.	A periodic review of the availability and suitability of resources, takes place.	The risks of the potential scarcity of resources are evaluated. The organization can demonstrate that it has regular and effective measurement of the approaches it uses to manage resources Resource planning includes short term and long term objectives.	The organisation can demonstrate that the approaches it uses are effectively and efficiently contributing to the delivery of its strategy. Opportunities to further improve its resource planning are sought from external learning about the approaches of others
6.2 Financial resources	Resources are defined and assigned in an ad-hoc way and only short term views are taken.	A process for predicting, monitoring and controlling financial resources is implemented. Financial governance is systematically structured.	There are periodic reviews of the effectiveness of the use of financial resources.	Financial resource risks are identified. Future financial needs are forecast and planned.	Interested parties can be shown to be satisfied with the availability and allocation of financial resources
6.3 Human resources	People resources are defined and assigned in an ad-hoc way. There is little measurement of people processes or outcomes.	Human resource management processes are defined, measured and reviewed within the management system	Needed technical and personal competencies are identified, related to current and future strategies and translated into development plans. Human resource processes are integrated fully with day to day operations.	Improving trends in employee motivation and involvement are occurring Data shows that the human resource management processes are efficient and effective	Data demonstrates that people are fully involved, motivated and empowered and are effectively contributing to the success of the organization, at or above a level achieved within comparable organisations

Table A 2.2 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+...)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
6.4 Suppliers and partners	Supplier communications are limited to tendering, order placement or problem resolution	Processes are in place to select, evaluate and rank suppliers.	Key suppliers are identified according to strategic needs or risks. Relationship processes exist to develop key suppliers.	Open communication of needs and strategies occurs with those suppliers regarded as key "partners". Relationships with key suppliers are undertaken with a view to creating value for both the organization and the partners.	Data demonstrates that key suppliers ("partners") are engaged and contributing to the organisation's successes
6.5 Infrastructure	Basis infrastructures are in place.	The organization's infrastructure is planned and managed. Statutory, legal or regulatory requirements are considered.	The infrastructure and related processes are periodically reviewed with the future in mind.	Risks for the infrastructure are identified and preventive actions are in place.	The performance and cost base of the organisation's infrastructure can be shown to be in line with, or better than, that of similar organisations. Scenario plans are established and regularly evaluated against potential threats and opportunities.
6.6 Work environment	Basic provisions for work environment are in place.	A process is in place to ensure that the work environment complies with all applicable statutory, legal or regulatory requirements	A periodic review of the efficiency and effectiveness of the work environment takes place.	Data shows that the work environment encourages productivity, creativity and the well-being of people	The processes implemented for the development of the work environment supports competitiveness and compares well with similar organisations

Table A 2.2 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
6.7 Knowledge, information and technology	Basic knowledge, information and technology approaches and systems are in place.	A process to identify, obtain, protect, use and evaluate information, knowledge and technology is implemented. Knowledge capture is in place, for current products and processes. Protection for information and communication systems exists	Information, knowledge and technology are shared within the organization and periodic reviews take place. Critical technologies are controlled via patents and secondary sourcing where needed.	Information, knowledge and technology are shared with partners and other interested parties.	The results achieved compare well with other organizations
6.8 Natural resources	Basic natural resource controls are in place.	A process is developed and implemented for the efficient use of natural resources (such as water, oil, minerals and raw materials).	The availability of natural resources is considered when selecting resources	The risks, to the organisation and to society, of the potential scarcity of natural resources are evaluated.	The organisation can demonstrate that its approach to the use of natural resources meets the needs of the present, without compromising the needs of future generations of society. The organisation has processes to take into account the need for environmental protection in the total life cycle of its products.

Table A.2.3 Detailed self-assessment against clause 7

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
7.1 Managing the organization's processes 7.2 Process planning	Processes are planned and managed in an informal, ad hoc manner.	Key processes, such as those related to product realization and customer satisfaction, are defined and managed. Interrelationship between processes are defined and managed. The effectiveness of the processes is systematically measured and acted upon.	Process planning is integrated with strategy deployment. The needs and expectations of identified interested parties are used as inputs into process planning. Improvements in process efficiency can be demonstrated. Processes are delivering predictable results. The efficiency and effectiveness of the management system for the processes is reviewed.	Improvements in agility, flexibility and processes innovation can be demonstrated. All relevant interested parties are considered in process planning. Few interrelationship conflicts exist between processes.	Process performance is compared to leading organizations and the results are used in process planning. The outcomes of key processes are above the organization's sector average
7.3 Process responsibility and authority	Process responsibilities are defined on an ad hoc basis	Clear responsibility and authority for management of processes is assigned (e.g. to "process owners")	A policy to avoid and resolve potential disputes in process management exists.	Process owners' competences are continually improved.	Learning is shared between process owners and interested parties.

Table A.2.4 Detailed self-assessment against clause 8

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
8.1 General 8.2 Monitoring	<p>Monitoring is performed on a sporadic basis, with no processes in place. The focus is on products triggered by product problems or management problems (i.e. crisis situations).</p> <p>While information about applicable statutory and regulatory requirements is collected, changes in the requirements are only noticed by accident.</p>	<p>A monitoring process is performed periodically.</p> <p>The focus is on customers.</p> <p>Customer needs and expectations are systematically monitored. Changes in statutory and regulatory requirements are systematically tracked through formally designed mechanisms.</p>	<p>The monitoring process is regularly evaluated to improve its effectiveness.</p> <p>The focus is on suppliers, people and other interested parties.</p> <p>Feedback from key suppliers and partners is gathered in a planned manner.</p> <p>Feedback from people is gathered by default only. Current process capabilities are monitored.</p> <p>The processes for tracking statutory and regulatory requirements are effective and efficient.</p>	<p>The monitoring process is performed in a systematic and planned way, and includes cross checks with external data sources.</p> <p>Resource requirements are assessed in a systematic and planned way, over time.</p> <p>Feedback from employees and customers is gathered through professionally conducted surveys and other mechanisms such as focus groups.</p>	<p>The monitoring process delivers trends and reliable data.</p> <p>The focus is on trends within the organization's activity sector, technologies, and labour situation, with optimization of the use and development of resources.</p> <p>Changes taking place or expected in economic policies, product demands, technologies, environmental protection, or in social and cultural issues, that could have an impact on the organization's performance, are monitored in planned way.</p>

Table A 2.4 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+...)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
8.3 Measurement 8.3.1 General 8.3.2 Key performance indicators	<p>A very limited set of data from measurements and assessments is available to support management decisions or tracking of the progress of actions taken. Basic indicators (such as financials, on-time deliveries, number of customer complaints, legal warnings and fines) are used. Accuracy of data is not always reliable.</p>	<p>There is a formal set of definitions for key indicators related to the organization's strategy and main processes. Indicators are mostly based on the use of internal data. Management decisions are supported by the outputs from reviews of the quality management system and additional key indicators.</p>	<p>Process level objectives, are related to key performance indicators. The main conditions for success are identified and tracked by suitable, practical indicators. Management decisions are adequately supported by reliable data from the measurement systems.</p>	<p>Data is available to show progress on key performance indicators over time. It is possible to monitor efficiently the timely deployment of the strategy and objectives. The results of the measurements are made available inside the organization and are widely used. Systematic analysis of data allows future performance to be predicted.</p>	<p>Data is available to show how the organization's performance compares with that of other organizations. Systematic analysis of comprehensive data, allows future performance to be predicted with confidence.</p>
8.3.3 Internal audit	<p>Some data is collected, but no formal approach is used. Audits are reactively performed in response to problems, customer complaints, etc. Collected data is mostly used to solve problems with products.</p>	<p>Some data is collected from key processes on a regular basis. Audit data is used systematically to review the management system. Self-assessment is limited. Data and the results of evaluations are beginning to be used in a preventive way.</p>	<p>Data gathering is embedded in a structured process. When necessary, qualifying studies are conducted to verify the data, particularly when the data is derived from judgements, opinions, etc. Audits ensure the accuracy of data and the effectiveness of the management system. Self-assessments are regularly conducted.</p>	<p>The data gathering processes are continually evaluated and their effectiveness and efficiency improved. Approaches to audit are integrated. Self-assessment outcomes are integrated into the strategic planning process.</p>	<p>Sources of data are comprehensive and reflect the performance of all strategic and operational areas of the organization. Joint audits (with other interested parties) provide opportunities for partners to identify improvements. Self-assessment outcomes are compared with other organizations.</p>

Table A.2.4 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
8.3.5 Benchmarking	Interchange of best practices within the organization is anecdotal. Some product comparisons with products in the market are made.	Searches for best practices within the organisation are supported by the management. Some products of key competitors are analyzed and compared.	Some external benchmark activities are supported by the organization's leadership (covering products, processes and operations).	A benchmarking methodology is established. Key performance measurements are subjected to internal and external benchmarking, using a formal methodology.	Improvements of the management system are propelled by systematic benchmarking. The organization is frequently solicited by external entities to be a benchmark partner.
8.4 Analysing	Only anecdotal examples of data analysis exist. Only economic and financial objectives have been defined as the references for data analysis. There is limited analysis of customer complaints.	Analysis of relevant external and internal information is performed periodically. Some basic statistical tools are used. Evaluations of the levels of fulfilment of customer needs are performed. Product improvements are based on these analyses. The impact of changes in statutory and regulatory requirements on processes and products is analysed periodically.	A systematic data analysis process is supported by the wide use of statistical tools. Data analyses are utilized for the identification of the needs and expectations of relevant interested parties. Effective decisions and actions are based on the analyses of data and information.	An analysis process evaluates new resources, materials and technologies. The effectiveness of the analysis process is enhanced by the sharing of the analysis results with partners or other sources of knowledge. Distinctive product features are identified and value is added to products for interested parties, based on inputs from the analysis of information.	Relevant political, environmental, social, technological and comparative data is analyzed and used. Risks and opportunities that could impact the achievement of long and short term objectives are identified, based on analysis of data and trends. It can be demonstrated that there is effective analysis of data and trends.
8.5 Review of information gathered via monitoring and measurement	There is no formal approach for reviews. When a review is performed, it is often reactive.	Periodic reviews are conducted on the achievement of quality objectives and the performance of the quality management system. Active projects and all improvement actions are assessed during reviews, to evaluate progress against their plans and objectives.	Systematic reviews of key performance indicators and related objectives are regularly undertaken. Where adverse trends are identified they are acted upon. Reviews give an indication of whether adequate resources have been provided.	Review outputs are shared with partners as a way to facilitate learning. Internal comparisons are made to identify and share good practices.	Review outputs are shared with partners, as an input for improvement of the products and processes that can influence their level of satisfaction. The review and analysis systems are activity oriented. Results coming from reviews demonstrate that the actions taken are effective.

Table A.2.5 Detailed self-assessment against clause 9

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
9.1 General 9.2 Improvement	<p>Improvement activities are ad-hoc and based on customer or regulatory complaints.</p>	<p>Basic improvement processes, based on corrective and preventive actions, are in place.</p>	<p>Improvement efforts can be demonstrated in most of the products and key processes of the organization.</p> <p>The focus of the improvement processes is aligned with strategy and objectives.</p> <p>The organization supports the training and development of skills and teams for continuous improvement.</p>	<p>Recognition systems are in place for teams and individuals generating strategically relevant improvements.</p> <p>Results generated from the improvement process enhance the performance of the organization.</p> <p>Continuous improvement processes work at all levels of the organization, and with its suppliers and partners.</p> <p>The improvement processes are systematically reviewed.</p>	<p>Improvement is applied to products, processes, structures, the operating model and the management system.</p> <p>There is evidence of a strong relationship between improvement and outstanding results for the organization.</p> <p>Improvement is embedded as a routine activity across the whole organization, as well as for its suppliers and partners.</p> <p>The focus is on improving the performance of the organization, including its ability to learn and change.</p>

Table A 2.5 – (continued)

Clause	Maturity level				
	1. Basic	2. Proactive (Basic +)	3. Flexible (Proactive+..)	4. Progressive (Flexible+...)	5. Achieving sustained success (Progressive+...)
9.3 Innovation	Few innovation examples are occurring.	New products are introduced on an ad-hoc basis, with no planning for innovation in place. Innovation activities are based on data concerning the needs and expectations of customers.	The innovation process for new products and processes is able to identify changes in the organization's business environment, and plan innovations.	Innovations are prioritized, based on the balance between their urgency, the availability of resources, and the organization's strategy. Suppliers and partners are involved in the innovation processes. The effectiveness and efficiency of the innovation processes are assessed regularly as a part of the learning process. Innovation is used to improve the way the organization operates.	Innovation activities anticipate possible changes in the organization's business environment. Preventive plans are developed to avoid or minimize the identified risks accompanying innovation activities. Innovation is applied to products, processes, structures, the operating model and the management system.
9.4 Learning	Some lessons are learned arising from complaints. Learning is on individual basis, without the sharing of knowledge.	Learning is generated in a reactive way from systematic analysis of problems, and other data.	There are mechanisms and forums for sharing information. A system for recognizing positive results from suggestions or lessons learned is in place. Learning is addressed in the strategy and policies.	Learning is recognized as a key issue and networking, connectivity and interactivity is stimulated by top management to share knowledge. Management supports initiatives for learning, and leads by example. The organization's learning ability integrates personal competence and organizational competence. Learning is a foundation for the improvement and innovation processes.	The culture of learning appreciates creativity, supports diversity, and the use of weaknesses as opportunities for improvement. There are external engagements for the purpose of learning.

Annex B (informative)

Quality management principles

Introduction

This annex describes the eight quality management principles on which the quality management system standards of the ISO 9000 family of International Standards are based. These principles can be used by top management as a framework to guide their organizations towards improved performance. The principles are derived from the collective experience and knowledge of the international experts who participate in ISO Technical Committee ISO/TC 176, *Quality management and quality assurance*, which is responsible for developing and maintaining the ISO 9000 standards.

This annex gives the standardized descriptions of the principles.. In addition, it provides examples of the benefits derived from their use and of actions that managers typically take in applying the principles to improve their organizations' performance.

Principle 1: Customer focus

Organizations depend on their customers and therefore should understand current and future customer needs, should meet customer requirements and strive to exceed customer expectations.

Key benefits

- Increased revenue and market share obtained through flexible and fast responses to market opportunities,
- Increased effectiveness in the use of the organization's resources to enhance customer satisfaction,
- Improved customer loyalty leading to repeat business.

Applying the principle of customer focus typically leads to

- researching and understanding customer needs and expectations,
- ensuring that the objectives of the organization are linked to customer needs and expectations,
- communicating customer needs and expectations throughout the organization,
- measuring customer satisfaction and acting on the results,
- systematically managing customer relationships,
- ensuring a balanced approach between satisfying customers and other interested parties (such as owners, employees, suppliers, financiers, local communities and society as a whole).

Principle 2: Leadership

Leaders establish unity of purpose and direction of the organization. They should create and maintain the internal environment in which people can become fully involved in achieving the organization's objectives.

Key benefits

- people will understand and be motivated towards the organization's goals and objectives,
- activities are evaluated, aligned and implemented in a unified way,
- miscommunication between levels of an organization will be minimized.

Applying the principle of leadership typically leads to

- considering the needs of all interested parties including customers, owners, employees, suppliers, financiers, local communities and society as a whole,
- establishing a clear vision of the organization's future,
- setting challenging goals and targets,
- creating and sustaining shared values, fairness and ethical role models at all levels of the organization,
- establishing trust and eliminating fear,
- providing people with the required resources, training and freedom to act with responsibility and accountability,
- inspiring, encouraging and recognizing people's contributions.

Principle 3: Involvement of people

People at all levels are the essence of an organization and their full involvement enables their abilities to be used for the organization's benefit.

Key benefits:

- motivated, committed and involved people within the organization,
- innovation and creativity in furthering the organization's objectives,
- people being accountable for their own performance,
- people eager to participate in and contribute to continual improvement.

Applying the principle of involvement of people typically leads to:

- people understanding the importance of their contribution and role in the organization,

- people identifying constraints to their performance,
- people accepting ownership of problems and their responsibility for solving them,
- people evaluating their performance against their personal goals and objectives,
- people actively seeking opportunities to enhance their competence, knowledge and experience,
- people freely sharing knowledge and experience,
- people openly discussing problems and issues.

Principle 4: Process approach

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

Key benefits

- lower costs and shorter cycle times through effective use of resources.,
- improved, consistent and predictable results,
- focused and prioritized improvement opportunities.

Applying the principle of process approach typically leads to

- systematically defining the activities necessary to obtain a desired result,
- establishing clear responsibility and accountability for managing key activities,
- analyzing and measuring of the capability of key activities,
- identifying the interfaces of key activities within and between the functions of the organization,
- focusing on the factors such as resources, methods, and materials that will improve key activities of the organization,
- evaluating risks, consequences and impacts of activities on customers, suppliers and other interested parties.

Principle 5: System approach to management

Identifying, understanding and managing interrelated processes as a system contributes to the organization's effectiveness and efficiency in achieving its objectives.

Key benefits

- integration and alignment of the processes that will best achieve the desired results,

- ability to focus effort on the key processes,
- providing confidence to interested parties as to the consistency, effectiveness and efficiency of the organization.

Applying the principle of system approach to management typically leads to

- structuring a system to achieve the organization's objectives in the most effective and efficient way,
- understanding the interdependencies between the processes of the system,
- structured approaches that harmonize and integrate processes,
- providing a better understanding of the roles and responsibilities necessary for achieving common objectives and thereby reducing cross-functional barriers,
- understanding organizational capabilities and establishing resource constraints prior to action,
- targeting and defining how specific activities within a system should operate,
- continually improving the system through measurement and evaluation.

Principle 6: Continual improvement

Continual improvement of the organization's overall performance should be a permanent objective of the organization.

Key benefits

- performance advantage through improved organizational capabilities,
- alignment of improvement activities at all levels to an organization's strategic intent,
- flexibility to react quickly to opportunities.

Applying the principle of continual improvement typically leads to

- employing a consistent organization-wide approach to continual improvement of the organization's performance,
- providing people with training in the methods and tools of continual improvement,
- making continual improvement of products, processes and systems an objective for every individual in the organization,
- establishing goals to guide, and measures to track, continual improvement,
- recognizing and acknowledging improvements.

Principle 7: Factual approach to decision making

Effective decisions are based on the analysis of data and information.

Key benefits

- informed decisions,
- an increased ability to demonstrate the effectiveness of past decisions through reference to factual records,
- increased ability to review, challenge and change opinions and decisions.

Applying the principle of factual approach to decision making typically leads to

- ensuring that data and information are sufficiently accurate and reliable,
- making data accessible to those who need it,
- analyzing data and information using valid methods,
- making decisions and taking action based on factual analysis, balanced with experience and intuition.

Principle 8: Mutually beneficial supplier relationships

An organization and its suppliers are interdependent and a mutually beneficial relationship enhances the ability of both to create value.

Key benefits

- increased ability to create value for both parties,
- flexibility and speed of joint responses to changing market or customer needs and expectations,
- optimization of costs and resources.

Applying the principles of mutually beneficial supplier relationships typically leads to

- establishing relationships that balance short-term gains with long-term considerations,
- pooling of expertise and resources with partners,
- identifying and selecting key suppliers,
- clear and open communication,
- sharing information and future plans,
- establishing joint development and improvement activities,
- inspiring, encouraging and recognizing improvements and achievements by suppliers.

Annex C (informative)

Correspondence between ISO 9004:2009 and ISO 9001:2008

Table C.1 gives the correspondence between ISO 9001:2008 and this International Standard, and shows how the two International Standards complement each other.

ISO 9001 specifies requirements for a quality management system that can be used for internal application by organizations, or for certification, or for contractual purposes and focuses on the effectiveness of the quality management system in meeting the customer requirements.

This International Standard gives guidance for organizations whose top management wish to move beyond the requirements of ISO 9001, to address the needs and expectations of all interested parties and their satisfaction, by systematic and continual improvement of the organization's performance.

Table C.1 Correspondence between ISO 9004:2009 and ISO 9001:2008

ISO 9004:2009 sub-clause	ISO 9001:2008 sub-clause
4.1 Managing for the sustained success of an organization - General	4.1 General requirements 5.1 Management commitment – customer related
---	4.2 Documentation requirements
4.2 Interested parties	5.2 Customer focus
4.3 Needs and expectations	7.2 Customer related processes
4.4 Sustained success	---
5.1 Strategy and policy formulation, planning and deployment - General	5.3 Quality policy
5.2 Strategy and policy formulation	5.3 Quality policy
5.3 Strategy and policy planning	5.4 Planning
5.4 Strategy and policy deployment into processes and organizational structures	---
5.5 Communication	5.5.3 Internal communication 7.2.3 Customer communication
6.1 Resources management - General	6.1 Provision of resources
6.2 Financial resources	---
6.3 Human resources	6.2 Human resources
6.3.1 Management of Human Resources	6.2 Human resources

Table C.1 – (continued)

ISO 9004:2009 sub-clause	ISO 9001:2008 sub-clause
6.3.2 Competence of people	6.2.2 Competence, awareness and training
6.3.3 Involvement and motivation of people	---
6.4 Suppliers and partners	7.4.1 Purchasing process
6.4.1 Suppliers, partners and partnerships	---
6.4.2 Supplier and partners - selection, evaluation and improvement of their capabilities	7.4.1 Purchasing process
6.5 Infrastructure	6.3 Infrastructure
6.6 Work environment	6.4 Work environment
6.7 Knowledge, information and technology	---
6.8 Natural resources	---
7.1 Managing the organization's processes	7.5 Production and service provision
7.2 Process planning	7.1 Planning of product realization
7.3 Process responsibility and authority	5.5.1 Responsibility, authority and communication
---	7.6 Control of monitoring and measuring devices
8.1 Monitoring, measurement, analysis and review – General	8.1 General
8.2 Monitoring	8.2.3 Monitoring and measurement of processes 8.2.4 Monitoring and measurement of product
8.3.1 Measurement - General	8.2 Monitoring and measurement 8.2.1 Customer satisfaction
8.3.2 Key performance indicators	8.2.3 Monitoring and measurement of processes
8.3.3 Internal audit	8.2.2 Internal audit
8.3.4 Self-assessment	---
8.3.5 Benchmarking	---
8.4 Analysis	8.4 Analysis of data
8.5 Review of information gathered via monitoring and measurement	5.6 Management review
9.1 Improvement, innovation and learning - General	8.5 Improvement

Table C.1 – (continued)

ISO 9004:2009 sub-clause	ISO 9001:2008 sub-clause
9.2 Improvement	8.5 Improvement
9.3 Innovation	7.3 Design and development
9.4 Learning	---

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<http://www.iso.org/tc176/sc2>
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² Under development

³ Available from websites: <http://www.iso.org> or <http://www.iso.org/tc176/sc2>

⁴ To be updated to be aligned to ISO 9001:2008

⁵ Available from ISO Central Secretariat (sales@iso.org)