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Secretariat of ISO/TC 176/SC 2

**To the Members of ISO/TC 176/SC 2 -
Quality Management and Quality Assurance/ Quality Systems**

(TC176/SC2/WG15/N133) (1997/05/29)

Formal Output of TC176/SC2/WG15 on:

“Quality Management Principles and Guidelines on their Application”

1. Purpose

This document provides the formal output of ISO/TC176/SC2/WG15. This output includes this document and the following attachments:

- ISO/TC176/SC2/WG15/N130,
- ISO/TC176/SC2/WG15/N131,
- ISO/TC176/SC2/WG15/N132.

This document also serves as a briefing document for the TC176-brochure task team and WG18 on:

- The intended purpose and use of the Quality Management Principles documents ISO/TC176/SC2/WG15/N130 and N131.
- Issues outstanding for consideration by the TC176 brochure task team when formed.

2. Background.

SC2/WG15 has created, based on extensive customer research, a successfully balloted series of "Quality Management Principles".

3. Intended use of WG15 input for the development of a consistent pair of QA and QM Standards.

The output of WG15 is hereby handed over to TC176/SC2/WG18 for use to provide:

- An input for developing a consistent pair of QA/QM standards,

- A basis to help develop an understanding on the relationship between QA and QM,
- A means to build consistency into the pair of QA and QM standards.

4. Intended use of the WG15 output for the development of a brochure for Executive managers on Quality Management Principles.

The output of WG15 is in parallel handed over to a ISO/TC176 Brochure task team in order to produce an early release publication, in advance of the 2000 series release. The rationale for this being to provide the 'market place' early visibility of the principles that will underpin the QA/QM pair.

WG15 recommends that the brochure task team should:

- Give consideration to the outstanding issues listed below.
- Maintain close liaisons with SC2/WG18
- Ensure that it is constituted with a selection of representatives from WG15, in order to maintain continuity of thinking.

5. Outstanding Issues/Opportunities

- The document N131 has been produced with Executive Managers as its target users. With this in mind common terminology and meanings have been applied throughout, and not then precise meanings of ISO 8402.
- To reach its targeted users, the brochure should be presented with a clear and 'graphical' layout. This will require layout and presentational design over and above that addressed by WG15.
- The brochure should be launched in a way to ensure that the UNIVERSAL applicability of the principles is made clear.
- The introductory material in section 1.0 of WG15/N131 will require review and update when the formats of the QA/QM documents are defined.
- Section 5.0 of N131 should be expanded to include 'what next' steps for the reader.

QUALITY MANAGEMENT PRINCIPLES

AS APPROVED BY THE BALLOT OF
ISO/TC/176/SC2/N351B.

Additional guidelines on the application of the Quality Management Principles can be
found in ISO/TC176/SC2/WG15/N131

QUALITY MANAGEMENT PRINCIPLES

1. Background and purpose of the document

ISO/TC176/SC2/WG15 developed an extract of its document N125 "QUALITY MANAGEMENT PRINCIPLES AND GUIDELINES ON THEIR APPLICATION", which had a very positive ballot before the Tel Aviv meeting of TC176. In order to obtain the highest level of consensus on the defined quality management principles, this new document, only containing the eight Quality Management Principles, was balloted under No. ISO/TC176/SC2/N351B.

A positive result was obtained. The comments from the 36 voting countries (32 positive and 4 negative) have been reviewed by ISO/TC/176/SC2/WG15 at the Copenhagen meeting on 27 May through 29 May 1997. Appropriate changes have been incorporated into this new version of the document which is now numbered ISO/TC176/SC2/WG15/N130.

The negative votes received were not related to the principles as such, but rather to the fact that N351B was not structured in accordance with the ISO rules for Technical Reports and that the document was not suitable to be read as a stand alone document. However it has never been the intention of Working Group 15 to have the document published as a Technical Report, it was only intended to obtain full consensus on the Quality Management Principles.

According to the above mentioned ballot results the objective of obtaining full consensus has been achieved.

2. Quality Management Principles

A quality management principle is a comprehensive and fundamental rule or belief, for leading and operating an organisation, aimed at continually improving performance over the long term by focusing on customers while addressing the needs of all other stakeholders.

Principle 1 — Customer-Focused Organisation

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

Principle 2 — Leadership

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

Principle 3 — *Involvement of People*

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

Principle 4 — *Process Approach*

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

Principle 5 — *System Approach to Management*

Identifying, understanding and managing a system of interrelated processes for a given objective improves the organisation's effectiveness and efficiency.

Principle 6 — *Continual Improvement*

Continual improvement should be a permanent objective of the organisation.

Principle 7 — *Factual approach to decision making*

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

Principle 8 — *Mutually beneficial supplier relationships*

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

DRAFT BROCHURE ON QUALITY MANAGEMENT PRINCIPLES AND GUIDELINES ON THEIR APPLICATION

This draft brochure, to be finalized by ISO/TC 1 76, provides executive management with an understanding of the benefits for their organisation when using the Quality Management Principles. It incorporates the eight Quality Management Principles as approved by ISO/TC176/SC2. The final result of the approval ballot and the eight Quality Management Principles are given in ISO/TC176/SC2/WGIS/N130.

Quality Management Principles and Guidelines For Their Application

1.0 Introduction

This document provides an understanding of the Quality Management Principles that will facilitate a successful management culture for users of the ISO 9000 Family of standards and guidelines. The Quality Management Principles will be contained in the new ISO 9004 document. The ISO 9000 Family of standards will be based on these Quality Management Principles.

With growing global competition, quality management is becoming increasingly important to the leadership and management of all organisations. The Quality Management Principles apply universally to all user groups. This document focuses on the needs of executive managers. The Quality Management Principles may be incorporated into new or existing documents to satisfy the needs of other user groups.

By applying the following eight Quality Management Principles, organisations will produce benefits for customers, owners, people, suppliers, local communities and society at large.

2.0 Quality Management Principles

A quality management principle is a comprehensive and fundamental rule or belief, for leading and operating an organisation, aimed at continually improving performance over the long term by focusing on customers while addressing the needs of all other stakeholders.

Principle 1 - Customer-Focused Organisation

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

Applying the principle of customer-focused organisation leads to the following actions:

- understanding the whole range of customer needs and expectations for products, delivery, price, dependability, etc.
- ensuring a balanced approach among customers and other stakeholders (owners, people, suppliers, local communities and society at large) needs and expectations.
- communicating these needs and expectations throughout the organisation,
- measuring customer satisfaction and acting on results, and
- managing customer relationships.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, making customer needs and the needs of other stakeholders understood throughout the organisation;
- **for goal and target setting**, ensuring that relevant goals and targets are directly linked to customer needs and expectations;
- **for operational management**, improving the performance of the organisation to meet customer needs;
- **for human resources management**, ensuring the people have the knowledge and skills required to satisfy the organisation's customers.

Principle 2 - Leadership

"Leaders establish unity of purpose and direction of the organisation.

They should create and maintain the internal environment in which people can become fully involved in achieving the organisation's objectives."

Applying the principle of leadership leads to the following actions:

- being proactive and leading by example,
- understanding and responding to changes in the external environment,
- considering the needs of all stakeholders including customers, owners, people, suppliers, local communities and society at large,
- establishing a clear vision of the organisation's future,
- establishing shared values and ethical role models at all levels of the organisation,
- building trust and eliminating fear,
- providing people with the required resources and freedom to act with responsibility and accountability,
- inspiring, encouraging and recognizing people's contributions,
- promoting open and honest communication,
- educating, training and coaching people,
- setting challenging goals and targets, and
- implementing strategy to achieve these goals and targets.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, establishing and communicating a clear vision of the organisation's future;
- **for goal and target setting**, translating the vision of the organisation into measurable goals and targets;
- **for operational management**, empowered and involved people achieve the organisation's objectives;
- **for human resource management**, having an empowered, motivated, well informed and stable workforce.

Principle 3 - Involvement of People

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

Applying the principle of involvement of people leads to the following actions by the people:

- accepting ownership and responsibility to solve problems,
- actively seeking opportunities to make improvements,
- actively seeking opportunities to enhance their competencies, knowledge and experience,
- freely sharing knowledge and experience in teams and groups,
- focusing on the creation of value for customers,
- being innovative and creative in furthering the organisations objectives,
- better representing the organisation to customers, local communities and society at large,
- deriving satisfaction from their work, and
- be enthusiastic and proud to be part of the organisation.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, people effectively contributing to improvement of the policy and strategies of the organisation;
- **for goal and target setting**, people sharing ownership of the organisation's goals;
- **for operational management**, people being involved in appropriate decisions and process improvements;
- **for human resource management**, people being more satisfied with their jobs and being actively involved in their personal growth and development, for the organisation's benefit.

Principle 4 - Process Approach

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

Applying the principle of process approach leads to the following actions:

- defining the process to achieve the desired result,
- identifying and measuring the inputs and outputs of the process,
- identifying the interfaces of the process with the functions of the organisation,
- evaluating possible risks, consequences and impacts of processes on customers, suppliers and other stakeholders of the process,
- establishing clear responsibility, authority, and accountability for managing the process,
- identifying the internal and external customers, suppliers and other stakeholders of the process, and
- when designing processes, consideration is given to process steps, activities, flows, control measures, training needs, equipment, methods, information, materials and other resources to achieve the desired result.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, utilizing defined processes throughout the organisation will lead to more predictable results, better use of resources, shorter, cycle times and lower costs;
- **for goal and target setting**, understanding the capability of processes enables the creation of challenging goals and targets;
- **for operational management**, adopting the process approach for all operations results in lower costs, prevention of errors, control of variation, shorter cycle times and more predictable outputs;
- **for human resource management** establishing cost efficient processes for human resource management, such as hiring, education and training, enables the alignment of these processes with the needs of the organisation and produces a more capable workforce.

Principle 5 - System Approach to Management.

"Identifying, understanding and managing a system of interrelated processes for a given objective improves the organisation's effectiveness and efficiency."

Applying the principle of system approach to management leads to the following actions:

- defining the system by identifying or developing the processes that affect a given objective,
- structuring the system to achieve the objective in the most efficient way,
- understanding the interdependencies among the processes of the system,
- continually improving the system through measurement and evaluation, and

- establishing resource constraints prior to action.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, the creation of comprehensive and challenging plans that link functional and process inputs;
- **for goal and target setting**, the goals and targets of individual processes are aligned with the organisation's key objectives;
- **for operational management**, a broader overview of the effectiveness of processes which leads to understanding the causes of problems and timely improvement actions;
- **for human resource management**, provides a better understanding of roles and responsibilities for achieving common objectives thereby reducing cross functional barriers and improving teamwork.

Principle 6 - Continual Improvement

"Continual improvement should be a permanent objective of the organisation."

Applying the principle of continual improvement leads to the following actions:

- making continual improvement of products, processes and systems an objective for every individual in the organisation,
- applying the basic improvement concepts of incremental improvement and breakthrough improvement,
- using periodic assessments against established criteria of excellence to identify areas for potential improvement,
- continually improving the efficiency and effectiveness of all processes,
- promoting prevention based activities,
- providing every member of the organisation with appropriate education and training, on the methods and tools of continual improvement such as:
 - the Plan-Do-Check-Act cycle,
 - problem solving,
 - process re-engineering, and
 - process innovation,
- establishing measures and goals to guide and track improvements, and
- recognizing improvements.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, creating and achieving more competitive business plans through the integration of continual improvement with strategic and business planning;
- **for goal and target setting**, setting realistic and challenging improvement goals and providing the resources to achieve them;
- **for operational management**, involving people in the organisation in the continual improvement of processes;

- **for human resource management**, providing all people in the organisation with the tools, opportunities, and encouragement to improve products, processes and systems.

Principle 7 - Factual approach to decision making

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

Applying the principle of factual approach to decision making leads to the following actions:

- taking measurements and collecting data and information relevant to the objective,
- ensuring the data and information are sufficiently accurate, reliable and accessible,
- analysing the data and information using valid methods,
- understanding the value of appropriate statistical techniques, and
- making decisions and taking action based on the results of logical analysis balance with experience and intuition.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, strategies based on relevant data and information are more realistic and more likely to be achieved;
- **for goal and target setting**, using relevant comparative data and information to set realistic and challenging goals and targets;
- **for operational management**, data and information are the basis for understanding both process and system performance to guide improvements and prevent future problems;
- **for human resource management**, analysing data and information from sources such as people surveys, suggestions and focus groups to guide the formulation of human resource policies.

Principle 8 - Mutually beneficial supplier relationships

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

Applying the principle of mutually beneficial supplier relationships leads to the following actions:

- identifying and selecting key suppliers,
- establishing supplier relationships that balance short-term gains with long-term considerations for the organisation and society at large,
- creating clear and open communications,
- initiating joint development and improvement of products and processes,
- jointly establishing a clear understanding of customers' needs,
- sharing information and future plans, and

- recognizing supplier improvements and achievements.

Beneficial applications of this principle include:

- **for policy and strategy formulation**, creating competitive advantage through the development of strategic alliances or partnerships with suppliers;
- **for goal and target setting**, establishing more challenging goals and targets through early involvement and participation of suppliers;
- **for operational management**, creating and managing supplier relationships to ensure reliable, on-time, defect-free delivery of supplies;
- **for human resource management**. developing and enhancing supplier capabilities through supplier training, and joint improvement efforts.

3.0 Informative references

This Quality Management Principles Document is intended to be understood without reference to additional documents.

The core references for the ISO 9000 Family are:

1. ISO 9000-1 : 1994, Quality Management and Quality Assurance Standards - Part 1 : Guidelines For Selection and Use.
2. ISO 9001 : 1994, Quality Systems - Model For Quality Assurance in Design, Development, Production, Installation and Servicing.
3. ISO 9004-1 : 1994, Quality Management and Quality System Elements Part 1 Guidelines.

Introduction to:

Examples of Application of The Quality Management Principles in Quality Assurance and Quality Management

This document shows each quality management principle and a description of how each principle may be applied to:

- a) Quality Assurance requirements of ISO 9001 : 94
- b) Quality Management

Each application of the Quality Management Principles was reviewed to determine its applicability to the 1994 revisions of 9001 and 9004. Each element and sub element of 9001 and 9004 was included in this review.

A matrix was prepared to determine the extent of alignment of the Quality Management Principles and the current ISO 9001 elements. The alignment was graded as Strong, Medium, or Weak. The basis for grading was the consistency of the application statement in the second and third column on pages two and three, with the requirement in the ISO 9001 elements. The matrix is given on page 4 of this document.

**EXAMPLES OF APPLICATION OF THE QUALITY MANAGEMENT PRINCIPLES IN
QUALITY ASSURANCE AND QUALITY MANAGEMENT**

Quality Management Principles	APPLICATION FOR ISO 9001 (1994 EDITION)	QUALITY MANAGEMENT APPLICATION (ADDITIVE TO ISO 9001)
<p>Principle 1 - Customer-focused organization <i>Organizations depend on their customers and therefore should understand current and future customer needs, meet customer requirements and strive to exceed customer expectations.</i></p>	<p>Assure conformance to defined customer requirements.</p>	<p>Understand current and future customers needs and expectations. Measure customer satisfaction and act on it.</p>
<p>Principle 2 - Leadership <i>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.</i></p>	<p>Set policy and verifiable objectives, deploy policy, provide resources and establish an environment for Quality.</p>	<p>Establish vision, direction and shared values. Set challenging targets and goals and implement strategies to achieve them. Coach, facilitate, and empower people.</p>
<p>Principle 3 - Involvement of People <i>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.</i></p>	<p>Establish competency levels, train & qualify personnel. Provide clear authority and responsibility.</p>	<p>Create personal ownership of an organisations targets and goals, by using it's peoples knowledge and experience, and through training achieve involvement in operational decisions and process improvement.</p>
<p>Principle 4 - Process Approach <i>A desired result is achieved more efficiently when related resources and activities are managed as a process.</i></p>	<p>Establish, control and maintain documented processes.</p>	<p>Explicitly identify internal/external customers and suppliers of processes. Focus on the use of resources in process activities, leading to effective use of people, equipment, methods and materials.</p>
<p>Principle 5 - System Approach to Management <i>Identifying, understanding and managing a system of interrelated processes for a given objective improves the organization's effectiveness and efficiency.</i></p>	<p>Establish and maintain a suitable and effective documented Quality System.</p>	<p>Identify a set of processes in a system. Understand their interdependencies. Align the processes with the organisations goals and targets. Measure results against key objectives.</p>

<p>Principle 6 - Continual Improvement <i>Continual improvement should be a permanent objective of the organization.</i></p>	<p>Through management review, internal/external audits and corrective/preventive actions, continually improve the effectiveness of the Quality System.</p>	<p>Set realistic and challenging improvement goals, provide resources and give people the tools, opportunities and encouragement to contribute to the continual improvement of the processes.</p>
<p>Principle 7 - Factual Approach to Decision Making <i>Effective decisions are based on the analysis of data and information.</i></p>	<p>Management decisions and actions on the Quality System are based on the analysis of the factual data and information gained from reports on audits, corrective action, nonconforming product, customer complaints and other sources.</p>	<p>Decisions and actions are based on the analyses of data and information to maximise productivity and to minimise waste and rework. Effort is placed on minimising cost, improving performance and market share through the use of suitable management tools and technology.</p>
<p>Principle 8 - Mutually Beneficial Supplier Relationships <i>An organization and its suppliers are interdependent, and a mutually beneficial relationship enhances the ability of both to create value.</i></p>	<p>Adequately define and document requirements to be met by sub-contractors. Review and evaluate their performance to control the supply of quality products and services.</p>	<p>Establish strategic alliances or partnerships, ensuring early involvement and participation defining requirements for joint development and improvement of products, processes and systems. Develop mutual trust, respect and commitment to customer satisfaction and continual improvement.</p>

Alignment between Quality Management Principle and 9001 Clause

ISO 9001:1994 Clause Number	4.1	4.2	4.3	4.4	4.5	4.6	4.7	4.8	4.9	4.10	4.11	4.12	4.13	4.14	4.15	4.16	4.17	4.18	4.19	4.20
Quality Management Principles																				
1. Customer Focused Satisfaction	M		S	S	M	W	S	W		M	W		M	M		W				S
2. Leadership	S	W		W					W					W			W	M		
3. Involvement of People	M	W	W	W					W	W				W	M		W	S		
4. Process Approach	W	M	M	M	S			S	S	M			W	M	S	S	M	W		S
5. Systems Approach to	M	S		W	S	W		M	M				W	W	W	M	S			
6. Continual Improvement	W		W			W			M				M	S			S			
7. Factual Approach to	W	M		M	W	W		S	M	S	S	S	S	S		W	M			S
8. Mutually Beneficial Supplier Relationships					S	S			M				S							

S = Strong alignment link
M = Medium alignment link
W = Weak alignment link