

ISO group works to improve alignment of management system standards

by Dick Hortensius

In 2006, ISO's Technical Management Board (ISO/TMB) established the Technical Coordination Group (JTCG) to coordinate the development of ISO management system standards with a view to enhancing their consistency and alignment. This article describes the background and presents the contents of the proposals made by the JTCG. It reflects the views of the author, who is Secretary of the JTCG, but should not necessarily be taken as the official position of the JTCG.

The JTCG has met several times over the last two years and at the end of April 2009 (following its 5th meeting, in Costa Rica on 30 March) submitted important proposals for all ISO technical committees involved in the development of management system standards (MSS).

These proposals cover the establishment of a common structure with identical headings for clauses and sub-clauses for all ISO MSS and a common core vocabulary.

The ISO committees consulted were requested to provide their comments by the end of July 2009. It is the objective of the JTCG to start drafting common text for accepted identical system elements lat-

er this year. This article briefly describes the background and contents of the proposals from the JTCG.

The first years of ISO MSS

It is 22 years since the first ISO management system standard was published in 1987 – the first edition of ISO 9001 for quality management. At that time it was a model for quality assurance and mainly intended to be used by companies to evaluate their suppliers.

ISO 9001 “conquered the world”, quickly becoming the most widely implemented basis for independent third-party certification of quality man-

Common main system element defined in ISO Guide 72:2002

- Policy
- Planning
- Implementation and operation
- Performance assessment
- Improvement
- Management review.

agement systems in all types of organizations. It took until 1996 before the second management system standard appeared, namely ISO 14001 for environmental management systems.

During the development of this standard, there were already intensive contacts be-

tween ISO technical committee ISO/TC 176, responsible for quality management and ISO/TC 207, responsible for the ISO 14000 family for environmental management.

From the outset, it was recognized that many organizations would implement both ISO 9001 and ISO 14001 and that the standards should make it possible to do so. The aim in those days was “compatibility”, defined according to ISO/IEC Guide 2 as the suitability of standards to be used together without causing unacceptable interactions.

It was by that time not so much harmony and synergy that were at stake, but rather to maintain the unique characteristics of the separate systems without making integration impossible. Although the cooperation between the ISO technical committees was not yet optimal, in practice, many organizations experimented with the integration of environmental and quality management systems and usually with success. It was therefore logical that users of MSS expressed a need to better coordinate the development and contents of management system standards.

Conflicting models?

The first edition of ISO 14001 used a model to visualize the interrelationship between the elements of the environmental management system. This model was built upon a model of the well known quality guru, Deming: the **Plan-Do-Check-Act** cycle.

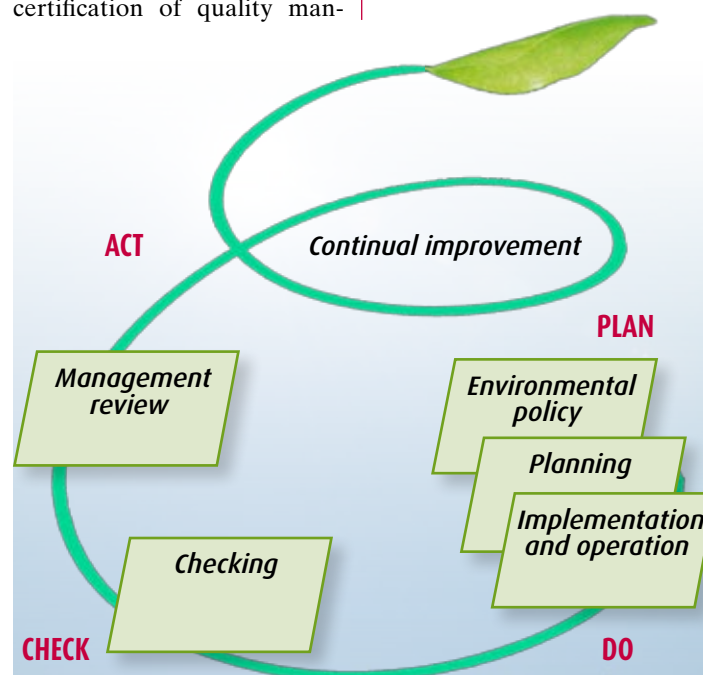


Figure 1 – The PDCA model of ISO 14001.

The clauses of ISO 14001 were structured according to that cycle and the model also clearly shows the ultimate objective of continual improvement (see **Figure 1**, page 21). At that time, ISO 9001 was not based on such a model and the second edition in 1994 was still structured according to the “20 elements” without a clear underlying concept.

Many organizations experimented with integration

However, the model for quality management was already under development and presented in the third edition of ISO 9001 published in 2000 as the so-called “process model”. It is a combination of PDCA and process management and clearly demonstrates that the focus of quality management is on meeting customer requirements and enhancing customer satisfaction (see **Figure 2**). Application of models in standards has advantages and disadvantages. On one hand, they show at a glance how the standard is structured and what the main characteristics and objectives of the management system are. On the other hand, many users of the standard use the model as the basis for implementing the system in their own organization.

However, doing so makes the integrated use of standards based on different models more difficult. Although that was not the intention, the dif-

Proposed high level structure

- 1. Context of the organization**
 - 1.1. Understanding of the organization and its context (within the framework of the management system)
 - 1.2. Needs & requirements of interested parties
 - 1.3. Scope of the management system
- 2. Leadership & planning**
 - 2.1. General MS requirements
 - 2.2. Policy
 - 2.3. Management responsibility and commitment
 - 2.4. Objectives and plans to achieve them
 - 2.5. Roles and responsibilities
- 3. Support**
 - 3.1. Resource provision
 - 3.2. Competence and training
 - 3.3. Awareness
 - 3.4. Communication, documentation/information and data
- 4. Operations**
 - 4.1. Operational control and planning
 - 4.2. Control of nonconformity
- 5. Performance evaluation**
 - 5.1. Monitoring & measurement
 - 5.2. Auditing
 - 5.3. Analysis and evaluation
 - 5.4. Management review
- 6. Improvement**
 - 6.1. Corrective action
 - 6.2. Preventive action
 - 6.3. Continual improvement.

ferent models of ISO 9001 and ISO 14001 seemed to increase the differences between the standards, despite the fact that there was already a good match between the two in most of the system elements.

There was thus a challenge for ISO to help MSS users and to ensure that ISO 9001, ISO

14001 and other standards for management systems, would converge in their structure, concepts and contents instead of diverge.

ISO Guide 72

On the initiative of the Netherlands Standardization Institute (NEN), ISO Guide 72

was developed and published in 2002. This ISO guideline was intended to be applied by all ISO committees developing management system standards.

ISO Guide 72 provides guidance to substantiate proposals for new management system standards (the so-called justification study) and for the standard development process.

The reason behind this specific guidance in addition to the general ISO/IEC¹⁾ Directives is that MSS usually have a major impact on organizations. Therefore, for any proposals for new MSS, the market need should be carefully considered. And because of the large number of interested parties

1) International Electrotechnical Commission.

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Composition of the JTCC

All ISO technical committees (TCs), subcommittees (SCs) project committees (PCs) or working groups (WGs) responsible for the development of generic management system standards or vocabularies are represented on the JTCC, as well as ISO/CASCO, Committee on conformity assessment. Currently, the JTCC is composed of representatives of the following committees:

- ISO/JTC 1/SC 27 - information security management
- ISO/TC 8 - supply chain security management
- ISO/TC 34 - food safety management
- ISO/TC 176 (+ SC 1, SC 2, SC 3) - quality management
- ISO/TC 207 (+ SC 1, SC 2, JTG) - environmental management
- ISO/TC 223 - operational continuity management
- ISO/PC 241 - road-traffic safety management
- ISO/PC 242 - energy management
- ISO/TMB/WG - risk management
- ISO/CASCO, Committee on conformity assessment.

The leadership of the JTCC rotates every two years. For 2009-2010, the Chair of the JTCC is Ron Waumans, Essent, Netherlands, and the Secretary is Dick Hortensius, NEN, Netherlands.

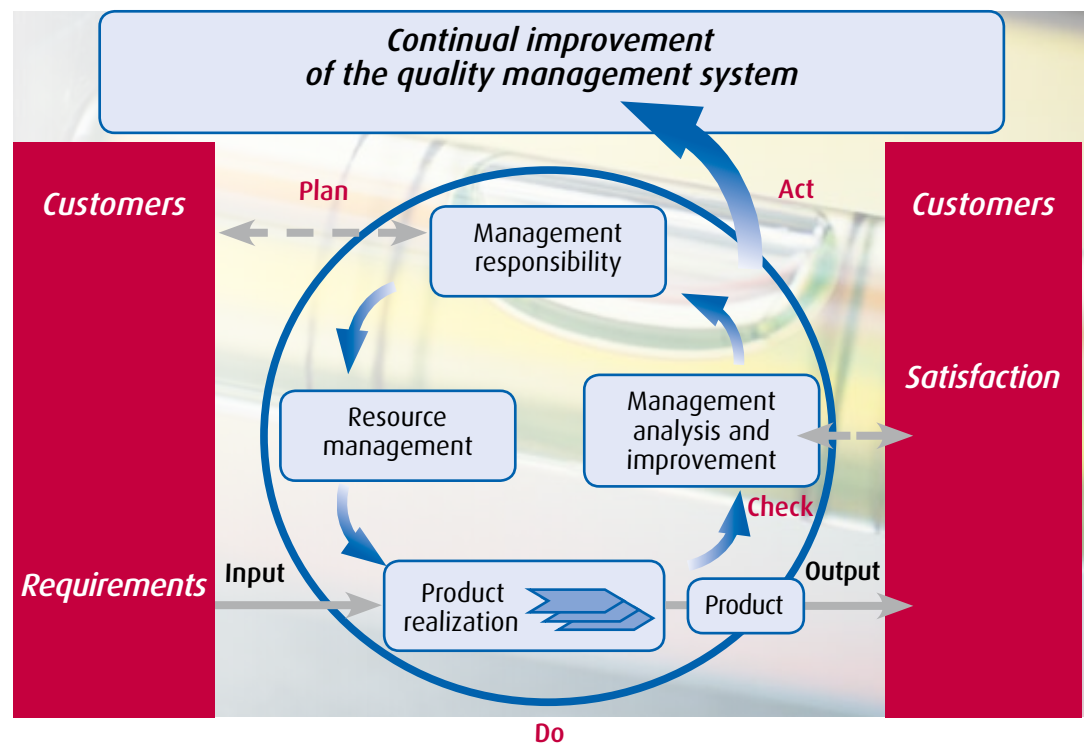


Figure 2 - The process model of ISO 9001.

involved a well organized and planned development process is necessary.

For the purposes of this article, the most interesting part of ISO Guide 72 are the recommendations to increase the compatibility and the “ease of use” of MSS. It was too early to decide on a single model for all ISO MSS, but Guide 72 contains a list of main subjects and common elements that should be included in each management system standard (see box “Common main system elements”). ISO Guide 72 also recommended that in each management system standard, these main subjects and common elements be incorporated in the same order to increase “ease of use”.

Because of the voluntary nature of Guide 72, the impact in recent years was relatively low. Gradually, increasing use

has been made of the format for the justification study, but the suggested structure for the MSS has not been adopted.

In the MSS published since 2002, one can see that sometimes the process model of ISO 9001 is followed (e.g. in ISO 22000 for food safety management and ISO/IEC 27001 for management of information security) and sometimes the PDCA model of ISO 14001 (e.g. in ISO 28000 for security management in the supply chain and, outside ISO, in OHSAS 18001 for occupational health and safety management).

The only normative document that I know of strictly following the structure of Guide 72 is the British Public Available Specification PAS 99, *Specification of common management system requirements as a basis for integration*, but that might

be due to the fact that two of the main authors of Guide 72 were part of the drafting team of PAS 99.

New initiatives to coordinate the development of MSS

The growing number of standards for management systems and the increasing concern amongst users whether these standards provide sufficient added value and can be easily applied in an integrated manner prompted ISO to consider new approaches to the coordination of MSS development.

Following a report by an ISO/TMB study group led by Rob Steele (at that time working for Standards New Zealand and now ISO Secretary-General), in 2006, ISO/TMB established two new groups in the area of MSS.

The first group, the *Strategic Advisory Group (SAG) on MSS*, has been given the task of strategic advice on the development of ISO standards for management systems in the future. What challenges and trends will companies and organizations face in the next 10 years and what should management systems standards look like to support companies for sustainable business success?

There was a challenge for ISO to help MSS standards users

Currently, this group is preparing its final report for ISO/TMB. One of the recommendations will likely be to ensure that all future MSS have an identical set of generic core requirements. For example, as in the “flower model” previously proposed by the Netherlands (see **Figure 3**).

The second group, the *Joint Technical Coordination Group (JTCG)*, has been given the task of ensuring better compatibility and alignment between the management system standards in the short term.

One of the concrete tasks is to assess and review the clause in ISO Guide 72 that deals with the common system elements and the preferred structure of management system standards.

Within the JTCG, three task groups have been established. Task Group 1 focuses on the management standards. This

task group has recently issued proposals for an identical main structure of MSS and identical sub-clause headings.

Task Group 2 focuses on auditing and has organized the systematic review of ISO 19011, *Guidelines for quality and/or environmental management systems auditing*. As a result, working group WG 16 of ISO/TC 176 subcommittee SC 3, *Supporting technologies*, is preparing a new edition of ISO 19011 with a new scope, broadening its application to auditing of all types of management systems.

Finally, Task Group 3 is focusing on further harmonization of terminology in the area of management systems. This task group has recently issued proposals for a number of common terms and core definitions that apply to all types of management systems.

New policies and proposals

Last year, the JTCG already agreed a new policy for MSS that has been endorsed by all relevant ISO technical committees. This policy has as main objective not only compatibility, but also alignment of MSS. This objective would be achieved through the promotion of identical:

- Clause titles
- Sequence of clause titles
- Text
- Definitions.

These would be permitted to diverge only where necessitated by specific differences

in managing their individual fields of application.

Proposals for identical (sub) clause titles and sequence were sent at the end of April 2009 by the JTCG to all ISO technical committees involved in MSS. These proposals included the so-called “high level structure” (see box) for all ISO MSS, as well as proposals for identical subclause titles (i.e. common system elements) within that structure.

Once accepted, the aim is to develop common text for these common elements, a process that was envisaged to start in September 2009.

What challenges will organizations face in the next 10 years?

The intention was that all relevant ISO technical committees could comment until the end of July and that in in September, the JTCG would develop a further elaboration of the model on the basis of the results of the consultation round.

Parallel to these proposals, Task Group 3 of the JTCG developed a number of common terms and core definitions for management systems and these have also been circulated for review and comments to the relevant ISO technical committees.

These proposals concern core definitions for 23 terms such as management, organization, top management, monitoring, preventive and corrective ac-

tion, audit, document, process, procedure, etc.

For most terms, a common core definition does not seem to be a big problem. But a new definition for the concept of “continual improvement” is likely to provoke discussion. According to ISO 9000, continual improvement is related to the increased ability to meet requirements. However, according to ISO 14001, the final aim of continual improvement is to achieve improvement in overall environmental performance. The proposal of Task Group 3 is a compromise: increasing the ability to meet objectives. Objectives normally include requirements and will normally focus on achieving performance objectives, but we have to wait and see whether this proposed core definition is acceptable to the diversity of committees and different technical and policy areas involved.

New accents

The proposals of JTCG are not a radical break with the past. However, new accents can be recognized and perhaps some others issues still need more emphasis.

Parts of the ISO 14001 PDCA model and the ISO 9001 process model can be identified in the proposal. In addition, the correspondence with the structure of ISO Guide 72 is fairly large. That is fortunate because those standards and the models they are based upon have already proven their value in the market-place.

Task Group 1 has examined whether the requirements of the current versions of ISO 9001 and ISO 14001 can be fully plotted in the proposed new structure. That was indeed the case, although there was some discussion about which requirements could be best placed under which heading.

Proposals concern core definitions for 23 terms

The introduction of the “context of the organization” highlights the importance of external and internal orientation for successfully establishing and maintaining a management system and for its actual performance in achieving benefits for the organization.

In what kind of “environment” (in terms of business, legal and social frameworks and the stakeholders involved) does the organization operate and what requirements are expected to be complied with related to the quality of products and services and on the conditions under which these are produced? How is the organization structured, what are its mission, vision, shared values and culture?

All these issues influence what an effective management system will look like. The “leadership and planning” section emphasizes the importance of visible leadership and (top) management for effective management (systems).

It is already well known that the impact of a management system highly depends on the commitment of top management. Therefore it is important that the future standards emphasize this.

The review by the ISO technical committees will show whether there are elements that need to be expressed more explicitly in this structure. For example, the compliance with legal requirements, which is now part of the identification of needs and requirements of interested parties. Another is risk assessment, which is now some-

where between identification of the context of the organization (including needs and requirements of stakeholders) and the establishment of policies and objectives and the arrangements to achieve these.

Next steps

As mentioned earlier, all ISO technical committees could submit comments until the end of July 2009. It was impor-

tant that they consider these proposals carefully, because it seems that ISO/TMB is very determined to enforce the alignment of management system standards.

The JTCG and its task groups were to meet again in September 2009 to review the comments and prepare a final proposal for consideration by ISO/TMB in the beginning of 2010. In the meantime, a start will also be made on drafting common text for accepted common subclauses.

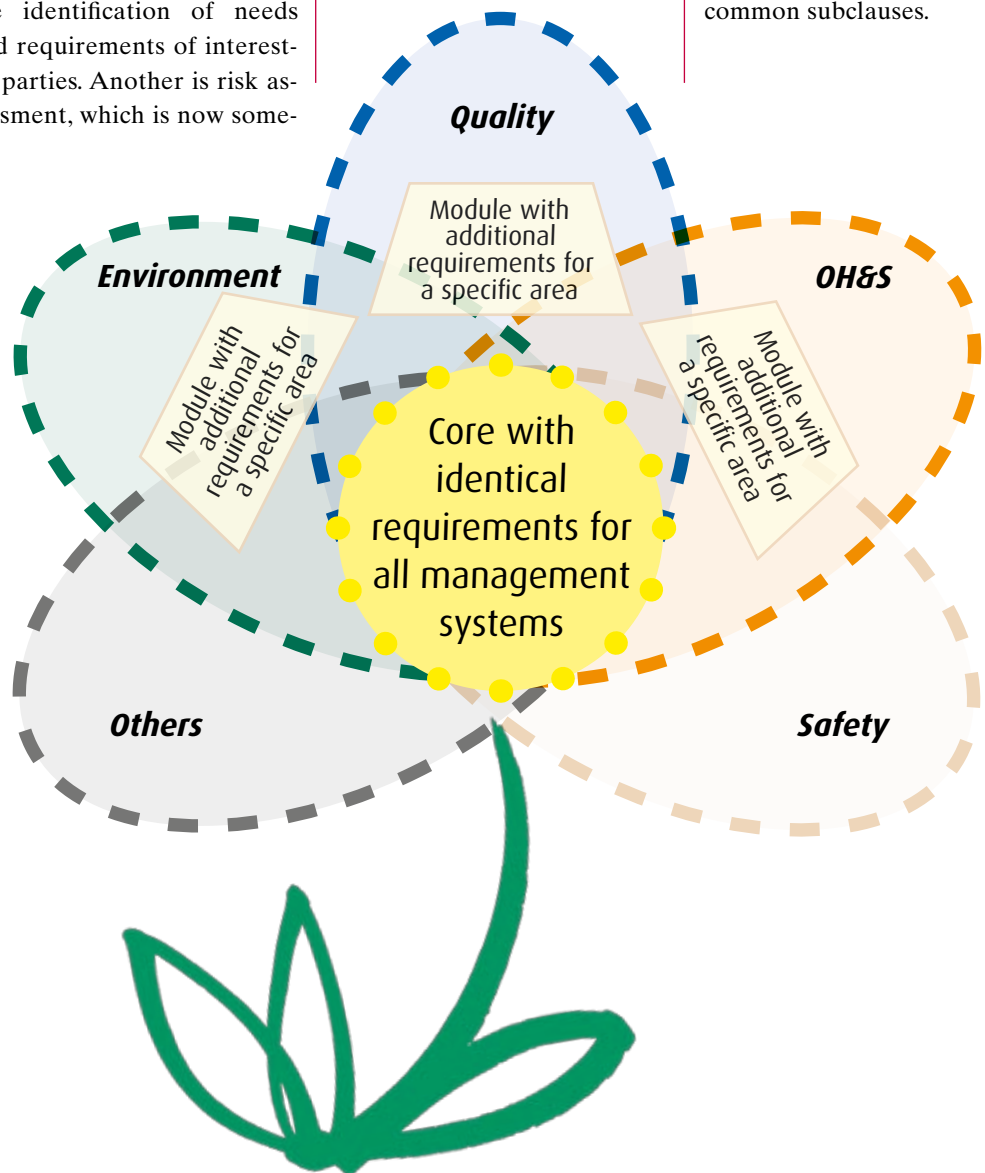


Figure 3 - “Flower model” for the future architecture of management system standards.