

## **Final report on the future challenges of EMS and ISO 14001**

### **Introduction and background**

This report has been prepared by the TC 207/SC 1 Study Group on future challenges of EMS and ISO 14001. This Study Group was established by ISO/TC 207/SC 1 in 2008 with the following mandate:

- The group will look into future challenges facing environmental management systems including stakeholder needs, since ISO 14001 was first published in 1996.
- The group will also consider new approaches and methods in the field of EMS. The SG will report to SC 1 at its next plenary meeting

Discussions by E-mail were initiated late November 2008 by Dick Hortensius, Netherlands, who was asked by the leadership of ISO/TC 207/SC 1 to convene the group.

The Study Group met for the 1<sup>st</sup> time during the annual meeting of ISO/TC 207 in June 2009 in Cairo and discussed a paper based on the results of the exchange of ideas by mail.

The group decided on the following 11 themes that were considered relevant to study further to gain insight in the future challenges of EMS:

1. EMS as part of sustainability and social responsibility
2. EMS and (improvement of) environmental performance
3. EMS and compliance with legal and other external requirements
4. EMS and overall (strategic) business management
5. EMS and conformity assessment
6. EMS and the uptake in small organizations
7. EMS and environmental impacts in the value/supply chain
8. EMS and engaging stakeholders
9. EMS and parallel or sub systems (GHG, energy)
10. EMS and external communication (including product information)
11. Positioning of EMS in (inter)national policy agendas

The group also decided on the further work arrangements that were aimed at submitting a final report to the TC 207/SC 1 annual meeting in 2010. Three so-called moderators were chosen to assist the convener in facilitating internet discussions and in preparing a consultation paper: Sue Briggs (USA), Cristina Rocha (Portugal) and Martin Baxter (UK). The consultation paper was circulated in February 2010 and was discussed together with the comments received during the 2<sup>nd</sup> meeting of the Study Group in July 2010 in Leon (Mexico). The results of that meeting were reported in a presentation to the plenary meeting of ISO/TC 207/SC1 in the form of some general recommendations, a summary of analysis for each theme together with specific recommendations with regard to the revision of ISO 14001 and/or other actions to be undertaken by ISO/TC 207/SC 1 and/or ISO/TC 207.

This final written report of the Study Group is based on the results and report of the meeting in Leon and is intended to be input for the ad hoc group that will prepare drafts for the scope and design specification for the revision of ISO 14001 as well as for the revision of ISO 14001 and ISO 14004 in general.

For each theme a description of the issue is given, followed by a summary of the analysis and the recommendations with regard to the revision of ISO 14001 and/or other actions to be undertaken by ISO/TC 207/SC 1 and/or ISO/TC 207.

The list of members of the Study Group is provided in Annex A.

The presentation of the Study Group to the ISO/TC 207/SC 1 plenary meeting in Leon on 16 July 2010 is provided in Annex B.

### **General recommendations of the Study Group**

- All themes that have been identified by the Study Group are important for the future relevance of ISO 14001 and should be taken into account during the next revision of ISO 14001 by addressing the specific recommendations given hereafter
- When considering new requirements in a revised version of ISO 14001, it should be remembered that ISO 14001 is a tool to improve environmental management; new requirements should not be set in such way that they only reflect 'best in class' levels that will dissuade or exclude entry level organizations from adopting this standard. The use of 'maturity matrices' should be considered to show how requirements can be applied in an increasingly comprehensive manner
- An organization should retain the responsibility to align its ISO 14001 processes with its environmental and business priorities
- ISO/TC 207 Provide a clear overview of the relationships between all standards in the ISO 14000 series for the benefits of companies in the form of a brochure and/or poster
- ISO/TC 207/SC 1 should provide briefing notes/fact sheets on e.g.:
  - How to apply ISO 14001 for GHG management
  - How to apply ISO 14001 to address SR
  - How to apply ISO 14001 to managing the supply chain

## Theme 1 - Environmental managements systems as part of sustainability management and social responsibility

### Description

Many organizations nowadays have policies related to sustainable development and (corporate) social responsibility. Due care for the organization's impacts on the environment is part of that, as clearly stated in ISO 26000 – Guidance on Social Responsibility<sup>1</sup>. Environmental management systems and tools assist those organizations in addressing the 'Planet' aspects and issues that are part of the overall attention for *People, Planet and Profit*. This is acknowledged in subclause 6.5.1.2 of ISO 26000.

Because it is an ISO standard, and because it is a very comprehensive guidance document, ISO/26000 will be the reference document for the analysis of theme 1. In this standard, environmental management is put in the context of sustainable consumption and production. The "Environment" section (subclause 6.5 in ISO 26000) is organized as follows:

- Principles of environmental responsibility, the precautionary approach, environmental risk management and polluter pays.
- Approaches or strategies to environmental management: life cycle thinking, environmental impact assessment, cleaner production and eco-efficiency, product-service systems, use and diffusion of environmentally sound technologies and practices and sustainable procurement.
- 4 environmental issues (the section of the standard where environmental "aspects", as understood in ISO 14001, are directly addressed), including related actions and expectations. The 4 issues are:
  - Prevention of pollution (waste and emissions)
  - Sustainable resource use (materials, energy and water consumption)
  - Climate change and mitigations (GHG)
  - Protection of the environment and restoration of natural habitats (ecosystems, biodiversity, land and natural resources, urban and rural development)

Other features of ISO 26000 which are relevant for EMS (such as supply/value chain responsibility, stakeholder involvement and external communication with stakeholders) are dealt with in themes 7, 8 and 10 respectively.

Another topic for discussion – the fact that, in practice, there is seldom a strong link between EMS on the manufacturing site and strategic sustainability policies on the top corporate level – is addressed in theme 4.

### Analysis

Whereas some principles and approaches from ISO 26000 are inherent to an EMS implementation according to ISO 14001 (environmental responsibility, environmental risk management, life cycle thinking, environmental impact assessment and, to some extent, sustainable procurement) others (precautionary approach, polluter pays, eco-efficiency, product service systems, environmentally sound technologies) are not.

From an implementation point of view, the links between an EMS according to ISO 14001 and ISO 26000 (its environmental component and horizontal issues for integrating SR in the organization) should be clarified.

Some views defend that an EMS could be a stepping stone to managing social responsibility, as the latter is more holistic and complex. Many organizations addressing their social responsibility according to ISO 26000 have implemented an EMS according to ISO 14001. Otherwise there may be organizations that use ISO 26000 as an entry gate towards the systematic management of environmental issues according to ISO 14001.

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<sup>1</sup> Currently at the stage of FDIS; expected to be published in November 2010

Some views argue that an EMS is implemented at a more operational level in an organization whereas SR as positioned in a more strategic level. EMS is regarded as an operational and compliance tool and not as a strategic instrument or issue.

**Summary analysis**

- There are no conceptual differences between the approaches in ISO 14001 and ISO 26000 in addressing environmental issues
- ISO 14001 defines a generic management system to address all types of environmental aspects ISO 26000 is not a MSS but provides guidance on specific environmental principles, issues and recommended actions
- ISO 14001 defines a management system than can be used as a basis to implement (the 'planet' part of) social responsibility according to ISO 26000

**Recommendations regarding revision of ISO 14001**

- Strengthen attention for subjects such as:
  - Transparency/accountability with respect to environmental management/issues/performance
  - Value chain influence/responsibility
- Put environmental management more clearly in the perspective of contributing to sustainable development (the 'planet pillar' of SR)
- Broaden/clarify the concept of Prevention of Pollution
- Consider addressing other environmental principles from ISO 26000, clause 6.5
- Consider aligning language between ISO 26000 and ISO 14001

**Recommended other action**

- Consider inclusion of practical tools to address sustainability in ISO 14004

## Theme 2 - Environmental management systems and (improvement of) environmental performance

### Description

ISO 14001 requires an organization to commit in their environmental policy to comply with applicable requirements, to prevent pollution and to continually improve its EMS in order to achieve improvements in overall environmental performance consistent with these policy commitments.

TC 207 has established SC4 on Environmental Performance Evaluation, that developed ISO 14031. This standard outlines an internal management process that uses indicators to provide information to compare an organization's past and present environmental performance with its environmental performance criteria. SC4 has recently initiated the revision of ISO 14031 and taken on new work, TS 14033, Environmental management -- Quantitative environmental information -- Guidelines and examples.

Consistent with the scope of TC 207<sup>1</sup>, however, neither ISO 14001 nor ISO 14031 establish absolute requirements or specific performance criteria. Regulatory bodies retain authority to mandate specific environmental performance criteria through regional and local legislation and facility-specific permitting/licensing. There have been debates whether ISO 14001 contains the right balance between (improvement of) management system performance and ("real") environmental performance.

<sup>1</sup>TC207 scope states, "Standardization in the field of environmental management systems and tools in support of sustainable development," and excludes "test methods of pollutants, setting limit values and levels of environmental performance, and standardization of products".

The link between EMS and environmental performance has been studied in various countries/regions. Key findings of these studies are presented below.

**Europe:** The [Remas report](#) states, "Based on the data the project gathered, there is good confidence that putting a progressively more robust EMS in place will lead to better site environmental management." Further, "Using data on water and air emissions, the project can confirm that there is evidence to link better site environmental management with better environmental performance. But, the confidence we can have with this statement varies with European region and sector." And, "The project found a reasonably strong link between better site environmental management and regulatory performance, although the effect of this differs in regions of Europe. It is clear from the data that the overall regulatory approach (for example the mix of permit levels, numbers of inspections and enforcement strategies) has a strong influence on the apparent outcome of this relationship."

**US EPA Partnership Programs:** A total of 46 programs, the aim of which is to promote environmental stewardship in a manner that enhances or complements regulatory programs on a voluntary basis to address particular environmental challenges. Although cancelled in 2009 by the Obama Administration, the [US EPA National Performance Track Program](#) was one such Partnership Program that required organizations to establish an independently verified EMS and environmental goals focused on national and regional priorities many of which are not covered by current regulation. The program issued a [final report](#) of environmental performance improvements achieved by its members. A recent study<sup>2</sup> was undertaken by the Obama Administration to solicit advice on EPA's role in promoting environmental stewardship practices, in part based on lessons learned from these voluntary partnership programs. The following preliminary observations were reported:

- Program efficacy is dependent on the ability to recruit members and to get members to adopt measures they had not previously considered. Stringent membership standards and monitoring can lead to better results but reduced participation. Higher entry requirements and heavy reporting requirements often discourage participation, particularly SME participation.
- These programs exist to supplement regulation rather than supplant them. (Voluntary programs encourage positive behavior and complement regulatory programs that address negative behavior.) Regulatory agency motivation for these programs is to seek common policy objectives, test innovative approaches and provide mechanisms for responding to problems with flexibility and collaboration. Organizations are motivated by a combination of regulatory threats and incentives, their own business strategy and branding and recognition opportunities.

- Voluntary programs do not impose mandatory limits; they invite organizations to set and achieve goals. Variability of member capacities and resources may affect how well that member can attain performance goals (particularly SME). The design features of programs include goal setting, promoting awareness and publicizing responsibility.
- Voluntary programs can create the impetus to improve environmental performance as well as help change the nature of the relationship between regulator and regulated organization. Process based performance mechanisms, such as EMS, offer potential benefits and opportunities to move organizations beyond compliance.
- Incentives were not uniformly valued by all participants; provision of regulatory incentives was not universally supported by stakeholders.
- Organizational benefits include: 1) information & best practice sharing, mentoring and learning between members; 2) improved employee recruiting, retention and morale; 3) access to environmental data supplied by EPA; and 4) greater employee awareness of facility impacts and discussion of environmental issues.

<sup>2</sup> *US EPA National Advisory Council for Environmental Policy and Technology, Subcommittee on Promoting Environmental Stewardship.*

**Wharton School Research:** Analysis of survey results from US ISO 14001 certificate holders examines how implementation of ISO 14001 is associated with improved environmental performance using self-reported data. This study found the following key attributes led to greater environmental performance improvement:

- Facilities that actively tailored and integrated ISO 14001 into their day-to-day operations
- Facilities that implemented robust performance management elements (objectives, targets and metrics)
- Facilities that developed an EMS within 1 year of being certified reported that ISO certification contributed to their environmental performance improvement.

#### **Summary analysis**

- ISO 14001 is aimed at achieving improvements in overall environmental performance, however, in the text this is not always very straight forward (e.g. the combination of the definitions of continual improvement and environmental performance shows that system improvement includes improvement of environmental performance but leads to a difficult text such as: "Continual improvement of the EMS in order to achieve improvements in overall environmental performance, i.e. in the measurable results of the organization's management of its environmental aspects")
- There is no clear link between ISO 14001 and ISO 14031, the definitions of environmental performance in the two standards are different, ISO 14031 is not widely known or used

#### **Recommendations regarding revision of ISO 14001**

- Clarification of the requirements of (improving) environmental performance in ISO 14001
- Strengthen performance evaluation as part of 4.5.1 in ISO 14001 (e.g. use of indicators); consider in this respect the ways in which performance evaluation is addressed in ISO 14031, in ISO 50001 and in non-ISO sources such as EMAS III and GRI

### **Theme 3 - Environmental management systems and compliance with legal and other external requirements**

#### **Description**

Environmental management systems should assist organizations to comply with applicable legislation and other external requirements that need to be met or are subscribed to. Compliance with legislation is a key issue in the added value of environmental management from the perspective of regulatory authorities. Many forms of 'regulatory relief' are based on presence of (certified) environmental management systems. However, there are numerous examples of organizations with certified ISO 14001 systems that were not in full compliance with all applicable legislation. There are still different views on what the required 'commitment to compliance' and related requirements in ISO 14001 (4.3.2, 4.3.3, 4.5.2 etc) should deliver. One view is expressed in the document from the European co-operation for Accreditation EA7-04 Legal compliance as part of accredited ISO 14001:2004 certification.

#### **Summary of analysis**

- Compliance with (legal) requirements is a key concept of ISO 14001:
  - Commitment in the policy,
  - Identification & analysis of legal requirements,
  - Evaluation of compliance, corrective actions,
  - Part of management review;
- Opinions differ on what can/should be expected from an organization with a (certified) EMS in this respect. E.g. in the US an organization cannot assert full legal compliance if plans are in place to address noncompliances. In some European countries, the 'commitment to comply' is only viewed as a 'pledge/promise'.
- Defining what legal compliance means is the responsibility of the regulators, not of ISO
- No organization can demonstrate full legal compliance at all times; such a demonstration can only be asserted for a particular scope and time;
- Certification does not and cannot guarantee (full) legal compliance;
- 'Demonstrated commitment to legal compliance' means that an organization:
  - Has implemented the ISO 14001 elements/requirements related to legal compliance;
  - Has knowledge of its compliance status; and
  - If noncompliances exist, have plans in place to achieve compliance
- ISO 14001 is a tool that helps an organization come into compliance. Some view that it would therefore be a mistake to impose requirements that discourage these organizations from using the tool and exclude them from being able to assert conformance with the standard

#### **Recommendations regarding revision of ISO 14001**

- Clearly describe and communicate the approach/mechanism of achieving legal compliance in ISO 14001 (e.g. in the Annex)
- Address the concept of 'demonstration of the commitment to legal compliance'
- Consider to include the concept of demonstrating knowledge and understanding of the organization's compliance status

## **Theme 4 - Environmental management systems and overall (strategic) business management**

### **Description**

Actually this is a multiple sided issue:

- First of all it relates to integration/alignment of environmental management with the overall business management of an organization: horizontal integration throughout the business (purchasing, design, engineering) and vertical, including strategic aspects such as product and process information. ISO 14006, currently at DIS stage, establishes the link between ecodesign and EMS and gives emphasis to the strategic implications
- Secondly it relates to the sustainability or social responsibility management of an organization (see theme 1)
- Thirdly it is related to integration/alignment with and integrated use of other (ISO) management system standards. Most of these issues are discussed in the TMB Strategic Advisory Group on MSS and the Joint Technical Coordination Group.
- Fourthly the relationship between (business) risk management and environmental management.

### **Summary of analysis**

- ISO 14001 does not hinder/limit/prohibit integration with strategic business management (by definition EMS is part of the organization's management system)
- In practice EMS is mostly operational and not linked to or part of strategic business management

### **Recommendations regarding revision of ISO 14001**

- Pay attention to strategic considerations of environmental management, the benefits and opportunities of it for organizations, not only in introduction, but also in the requirements
- Strengthen (on a strategic level) the relationship between environmental management and the core business of organizations, i.e. its products and services and the interaction with stakeholders (including clients and suppliers)
- Use the JTCG identical text on 'context of the organization' to strengthen link between environmental management and the organization's overall strategic considerations
- Consider the implications of new (strategic) business management models for application of ISO 14001



## Theme 5 - Environmental management systems and conformity assessment

### Description

The credibility of independent 3<sup>rd</sup> party conformity assessment process (known as "certification/registration") has been challenged, alleging the assessment process is not uniformly applied using consistent criteria<sup>1</sup>. The processes for determining competency and impartiality of auditors, audit durations and auditing protocols have lacked rigor. Lastly, the disparity in audit results, such as 'soft grading' (i.e., nonconformities being categorized as recommendations) and variability in the performance of certified organizations (some demonstrating significant environmental performance improvement; others not achieving minimal objectives/targets; others cited with regulatory violations while maintaining certification). This credibility issue is not unique to ISO 14001; all certification schemes can recite incidents – an organization certified to ISO 22000 releases tainted food products; an ISO 9001 certified organization recalls defective products; regulatory violations are served to an ISO 14001 certified organization. Interested parties are skeptical of the "Certified once; accepted everywhere" goal of IAF and its member accreditation bodies.

<sup>1</sup> NOTE: ANAB stated that the overwhelming majority of such complaints in the US are related to ISO 9001 certification audits, not ISO 14001.

Some have attributed the lack of consistent criteria to differing interpretations of ISO 14001 requirements. The reasons are numerous and can vary within and between countries:

- Individual accreditation bodies and/or certification bodies self-impose additional requirements.
- Accreditation bodies may adopt interpretations published by their national mirror body or regional committees of experts.
- Inconsistent expectations (i.e., 'interpretations') held by individual 3<sup>rd</sup> party auditors.
- Differences between IAF/ILAC accredited certification and other non-accredited certification. [Note: non-accredited certification bodies do not undergo independent verification that (1) their certification program meets international requirements, (2) their auditors are competent in the business sectors they audit, and (3) they have no real or perceived conflict of interest in their conformity assessment activities (i.e., engaged in both consulting and certification on behalf of a single client). "Virtual Certification" services, for example, issue certificates upon successful documentation review and payment of fees; no site visit required.]
- Ambiguously worded requirements in ISO 14001; a result of careful negotiations over a period of years, with language carefully chosen to reflect delicate compromises and flexibility in the standards' use and application.

Resolution of this issue may be beyond the scope of ISO/TC 207/SC 1 since conformity assessment activities are governed by ISO/CASCO, IAF and regional conformity assessment bodies. Several steps have been taken by these bodies, and others, to address these issues.

- ISO/IAF Communiqué on ['Expected Outcomes for Accredited Certification to ISO 14001'](#), issued in August, 2009. The intent is to promote a common focus and understanding of the outcomes expected by interested parties throughout the entire conformity assessment chain, and thereby enhance the value and relevance of accredited certification.
- ISO/IEC 17021, effective as of September, 2008, contains principles and enhanced requirements for the competence, consistency and impartiality of the management system certification audits, and for bodies providing these activities. [NOTE: 68 CB's were suspended or withdrawn because they did not meet the criteria by the transition date.] Future work underway includes development of ISO 17021 part 2 (currently at FDIS stage), a requirements document on 3<sup>rd</sup> party management system certification auditing (superseding the guidelines in ISO 19011) enhancing the requirements in part 1 related to competence criteria, demonstration of the application of the criteria to personnel, and the confirmation of the process effectiveness
- Multilateral recognition arrangements (MLA) require peer evaluation of accreditation bodies within IAF (with ongoing surveillance). The aim is to ensure that all MLA members implement the guidelines and operate their accreditation programs consistent and equivalent manner. To date the major differences identified pertain to: scoping for EMS audits; witnessed audit regimes; and accreditation assessor competence.
- IAF MD 5:2009, effective May, 2009, prescribes mandatory requirements for the [Duration of QMS and EMS Audits](#), which will minimize competitive pressures. Additional MSS mandatory documents are planned which will 'bridge' the generic requirements (applicable to all MSS) with MSS-specific requirements.

### **Analysis**

With respect to ISO 14001, are there ambiguously stated requirements within ISO 14001 that lead to conflicting interpretations?

Does the TC207/SC1 Interpretation Procedure (N382) itself lead to differing interpretations of ISO 14001 requirements?

- Are there conflicting interpretations published by member bodies?
- If so, has TC 207/SC1 conformed to their internal procedure on compiling interpretations for review by SC1 members; distributing to IAF, CASCO, etc; addressing 'variants'?
- Has the TC 176 centralized interpretation process for ISO 9001, which is restricted to a simple 'yes' or 'no' response to questions posed, been effective in minimizing conflicting interpretations and facilitating the application of consistent criteria during the certification process?

Has implementation of the more stringent requirements in ISO/IEC 17021 resolved the issues associated with credibility of third party certifications? Is additional time and data needed? What, if any, conformity assessment process issues were not addressed by ISO 17021 that contribute to credibility issues with ISO 14001 certifications? Will they be addressed in the future work planned?

What actions have been taken by other MSS TC's (such as TC 176, Quality, and TC 34, Food Safety) to prevent recurrence of incidents by organizations certified to their standards? Can TC 207 benchmark and learn from these experiences?

### **Summary of analysis**

- Credibility of certification against ISO 14001 is affected by many factors outside the scope of work of ISO/TC 207/SC 1. However, differing interpretations of the ISO 14001 requirements (e.g. related to legal compliance) may also be a factor.

### **Recommendations regarding revision of ISO 14001**

- Draft clear and unambiguous requirements in ISO 14001
- Provide where necessary clearer guidance in Annex A (according to its current aim: to prevent misinterpretation of the requirements)

### **Recommended other action**

- Review the functioning of the TC 207/SC 1 interpretation process and investigate the potential need to improve its functioning and whether there is a need to issue harmonized international interpretations of ISO 14001<sup>2</sup>

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<sup>2</sup> This issue has been briefly discussed during the 18<sup>th</sup> meeting of ISO/TC 207/SC 1 in Leon (July 2010) and was reported as follows (see document TC 207/SC 1 N 780):

*Members discussed whether the procedure was effective as not many interpretation queries had been provided by members. Some members stated that the main issue was not collating the interpretation queries received and the responses provide by the NSB but the translation into English. It was also felt that since the standard had been in the market for about 15 years, there were not many interpretation enquiries from users and that the procedure could be revised once the standards are revised*

## **Theme 6 - Environmental management systems and the application in small organizations**

### **Description**

Over the last years much discussion has taken place on the application of environmental management in small organizations and whether ISO 14001 is or is not suitable for small and micro organizations. It was the subject of a number of SME advisory and task groups and this resulted in a wide variety of opinions on whether and if so, what specific actions need to be taken for small organizations. See e.g. the varying views on ISO 14005.

### **Summary of analysis**

- The requirements in ISO 14001 are suitable for application by small organizations
- There is a growing number of “below ISO 14000 schemes’ that are applied by SME

### **Recommendations regarding revision of ISO 14001**

- Maintain the applicability of ISO 14001 to SME, e.g. by drafting/maintaining simple and understandable requirements
- Consider the guidance given in CEN Guide 17 “Guidance for writing standards taking into account micro, small and medium-sized enterprises (SMEs) needs”

### **Recommended other action**

- Gather/establish examples of applicability of (parts of) ISO 14001 by SME, provided these can be made available via internet

## **Theme 7 - Environmental management systems and environmental impacts of products and services (in the value chain)**

### **Description**

Environmental value chain management is addressed in ISO 14001 as the standard covers the environmental aspects of an organization's activities, products and services that it can control and those aspects that it can influence; furthermore in the operational control section the significant environmental aspects of goods and services used by the organization and its suppliers/contractors are addressed. Nevertheless the life cycle perspective and the notion of value chain management are rather implicit and there are varying views on whether ISO 14001 embodies e.g. eco-design activities and requires attention for environmental aspects related to the value chain of which an organization is part.

ISO 14004 gives examples of environmental aspects that an organization can influence, e.g. those related to products and services used by the organization and those related to products and services it provides, and recommends that consideration is given to several stages such as design and development, manufacturing, packaging, etc.

Guidance on how to address ecodesign in an EMS is provided by ISO 14006 (currently at DIS stage).

### **Summary of analysis**

- ISO 14001 addresses the environmental aspects of products and services, including those that the organization can influence and herewith provides a value chain perspective to environmental management. However, current practices vary to a large extent
- Robust/mature systems evolve over time, particularly in respect to the extent with which they address the value chain/product lifecycle. E.g. operational controls on products may start by first looking at material inputs and/or packaging, then later focusing on redesigns to reduce impacts from use of products, then even later focusing on reclaiming and recycling products at end of lifecycle. ISO should beware of imposing fully mature expectations as requirements on entry level organizations.

### **Recommendations regarding revision of ISO 14001**

- Address life cycle thinking\* and the value chain perspective more clearly in the identification & evaluation of environmental aspects related to products and services
- Include clear requirements/guidance related to strategic environmental considerations, design & development, purchasing, market & sales activities in alignment with organizational priorities

\* This does not mean imposing LCA

### **Recommended other action**

- Develop briefing notes providing options, examples and best practices for how organizations can address the value chain perspective as part of their environmental management
- Consider the use of 'maturity matrices' to show how requirements can be applied in an increasingly comprehensive manner

## Theme 8 - EMS and engaging stakeholders

### Description

This theme is derived from theme 1. For ISO 14001/EMS to be relevant in the framework of sustainability and/or social responsibility consideration should be given to relationships with and engagement of stakeholders in environmental management.

In ISO 14001 interested parties are defined as “persons or groups concerned with or affected by the environmental performance of an organization”. The term “stakeholders” is not used. The standard establishes requirements concerning interested parties in 4.3.3 (the views of interested parties shall be considered in the organization’s objectives, targets and programmes), in 4.4.3 (receiving, documenting and responding to relevant communication from external interested parties; and deciding on whether or not to communicate externally about the organization’s significant environmental aspects) and in 4.6 (inputs to management review include communications from external interested parties).

ISO 26000 defines stakeholder as “individual or group that has an interest in any decision or activity of an organization” and explains that stakeholder engagement implies that the organization understands its impacts on stakeholders and identifies how to address those impacts.

So the notion of “interested party” in ISO 14001 and “stakeholder” in ISO 26000 is fundamentally the same, what differs is the importance of stakeholders in the decision making process and accountability of the organization.

In ISO 26000 respect for interests of stakeholders is one of the seven SR principles: an organization should respect, consider and respond to the interests of its stakeholders, in the context of effective governance. This is operationalized through:

- Stakeholder identification and a “fair and proper process” of engaging the most relevant stakeholders
- Including the stakeholders concerns when analyzing the relationship between the organization’s activities and SR
- Involving stakeholders in identifying SR subjects and issues and considering stakeholders’ concerns for determining significance
- Involving stakeholders when establishing priorities for addressing SR subjects and issues
- Considering stakeholder inputs when setting the direction in SR
- Communicating with/periodically reporting to stakeholders and providing opportunities for feedback
- Engaging with stakeholders for establishing and enhancing the organization’s credibility regarding SR, including resolving conflicts and disagreements between the organization and its stakeholders
- Considering stakeholders’ views in reviewing and improving the organization’s actions and practices related to SR

### Questions

- How do organizations implementing an EMS according to ISO 14001 identify their interested parties?
- To what extent are the views of interested parties considered by organizations when they define their environmental objectives, targets and programmes within an EMS?
- What kinds of views are considered?
- Which interested parties are mostly considered?
- Is this done systematically?
- Do organizations implementing an EMS according to ISO 14001 tend to communicate externally about their significant environmental aspects or not?
- If not, in their documented decisions which are the reasons for not communicating (if stated)?
- What kinds of communications from external interested parties are considered in the management review phase of an EMS? Complaints only or is this a proactive process in management review?
- Which are the pros and cons of including in an EMS interested parties/stakeholders engagement similarly to what is recommended by ISO 26000?
- Should those missing interested parties/stakeholder engagement elements be requirements in the revision of ISO 14001?
- Which other ways of promoting interested parties/stakeholder engagement in EMS could be recommended?

**Summary of analysis**

- ISO 14001 addresses interested parties (views to be considered, communication, input to management review) but not as comprehensive as e.g. in ISO 26000

**Recommendation regarding revision of ISO 14001**

- Building upon the (draft) JTCC identical text introduce a more systematic approach for identification of, consultation and communication with stakeholders on environmental issues

## Theme 9 – EMS and parallel or subsystems ('sector- and aspect-specific systems')

### Description

This theme is derived from the discussion on theme 2, where it was considered that there is a tendency to establish separate (sub)systems for issues for which specific performance objectives are established in e.g. the regulatory arena (energy, GHG). The issue is also addressed in the new TC 207 and TC 207/SC 1 sector policies. These policies are aimed at avoiding the proliferation of unnecessary sector-, aspect-, or element- specific environmental management standards and promoting consistency and alignment between generic and sector-, aspect- or element-specific environmental management standards thereby avoiding market confusion.

This ISO/TC 207 policy distinguishes between sector-, aspect- and element-specific standards:

Sector-specific environmental management standard	Standard that provides additional requirements or guidance for the application of a generic environmental management standard to a specific economic or business sector; for example the application of an environmental management system ( <i>ISO 14001</i> ) or life-cycle assessment ( <i>ISO 14044</i> ) to agri-food or energy sectors.
Aspect-specific environmental management standard	Standard that provides additional requirements or guidance for the application of a generic environmental management standard for a specific environmental aspect or aspects within its scope; for example the application of an environmental management system ( <i>ISO 14001</i> ) for greenhouse gas ( <i>aspect</i> ) management or life-cycle assessment ( <i>ISO 14044</i> ) for the water ( <i>aspect</i> ) footprint of products.
Element-specific environmental management standard	Standard that provides additional requirements or guidance for the application of a generic environmental management standard for a specific element or elements within its scope; for example communications or emergency management ( <i>elements</i> ) within an environmental management system ( <i>ISO 14001</i> ) or data collection or critical review ( <i>elements</i> ) within a life-cycle assessment ( <i>ISO 14044</i> ).

### Summary of analysis

- ISO 14001 generically applies to all types of sectors and all types of environmental issues (including energy use, emissions of GHG etc)
- There is an accepted TC 207 sector, aspect and element policy (also approved by ISO/TMB)
- Emerging of (proposals for) new aspect specific MSS

### Recommended other actions

- Communicate the broad applicability of ISO 14001 as well as the advantages of considering environmental aspects/issues not separately but in an integrated way and broader perspective
- Consider developing briefing notes on application of ISO 14001 for specific aspects/sectors as alternative to development of new aspect/sector specific standards (e.g. GHG)

## Theme 10 – EMS and external communication (including product information)

### Description

This theme is also derived from the discussion on theme 2 and partly related to themes 7 and 8. It is broader than communication of environmental performance information.

ISO 14001 has few requirements regarding external communication in ISO 14001: the public environmental policy and in 4.4.3 (receiving, documenting and responding to relevant communication from external interested parties; and deciding on whether or not to communicate externally about the organization's significant environmental aspects).

Other relevant standards from the 14001 family are ISO 14031 on environmental performance evaluation, the ISO 14020 series on environmental labels and declarations (especially ISO 14025 on type III – environmental product declarations) and ISO 14063 on environmental communication.

Outside the ISO world there are other standards and guidelines for sustainability reporting (for instance GRI, organized in environmental, social and economic indicators) that companies are increasingly using.

For this discussion the relevant elements of these standards are:

- The need of establishing performance indicators for communication: this concerns ISO 14031 (which organizes indicators, to be defined by the organization, in three types, management performance indicators, operational performance indicators and environmental condition indicators) and GRI (which defines a set of “core” environmental indicators)
- Product information may require life cycle assessment (in the case of EPD's)
- The need to identify and understand issues of concern to interested parties for a sound communication process (as in ISO 14063)

### Questions

- For those ISO 14001 implementing organizations that decide to communicate externally about their significant environmental aspects, how do they do:
  - o Do they use indicators?
  - o Do they follow ISO 14031?
  - o Do they communicate periodically?
  - o Do they integrate these communications in sustainability reports?
  - o Do they include product information?
  - o Do they include LCA results in these communications?
  - o Do they implement environmental communication systems according to ISO 14063?
  - o Do they target the information to specific groups and make sure the information is usable by them?
- Do those ISO 14001 implementing organizations that decide to communicate externally about their significant environmental aspects report benefits from this? Has external communication improved their EMS? Has it provided more inputs to an informed management review?
- Should external communication requirements be strengthened in the revision of ISO 14001?
- Which other ways of promoting external communication in EMS could be recommended?

### Summary of analysis

- ISO 14001 addresses external communication. It does not require voluntary pro-active external communication. It does not contain any requirements related to providing information on environmental aspects of products/services to external interested parties.

### Recommendations regarding revision of ISO 14001

- The future revision of ISO 14001 should address a requirement to establish an external communication strategy, including communication objectives, identifying relevant interested parties, description of what and when to communicate
- Provide guidance in the Annex on information related to environmental aspects of products and services to external interested parties



## Theme 11 - Positioning of EMS in (inter)national policy agendas

### Description

An environmental management system that meets the requirements of ISO 14001 is a well recognized tool for organisations to improve their competitiveness and productivity by the more efficient use of energy and resources. The number of organisations that use EMS have continued to increase – data from ISO shows that over 188,000 ISO 14001 certificates had been issued by the end of 2008 in 155 countries – a 22% increase in certifications on the previous year.

The recent global financial crisis led to a number of economic stimulus packages being implemented at a national level. The concept of a “Green New Deal” was actively promoted by policy makers as a means to stimulate job creation in green industries and support moves to a more sustainable recovery through a transition to a green economy. The communiqué from the 2009 G20 leader’s summit affirmed their commitment to “building a resilient, sustainable, and green recovery” making the “transition towards clean, innovative, resource efficient, low carbon technologies and infrastructure”.

HSBC’s Climate Change Global Research report “Climate for Recovery – the colour of stimulus goes green”, published at the end of February 2009, identified that \$430 billion was allocated to supporting a low carbon recovery, around 15% of the total. South Korea led the way, with over 80% of its stimulus package allocated to funding green initiatives.

Given the potential role of ISO 14001 to support the transition to a low carbon and resource efficient economy, why have policy makers failed to invest significant resources in supporting ISO 14001 implementation?

There are other national policy agendas where ISO 14001 could also contribute to policy outcomes. There are many, but examples include greening government operations. For example, the US Federal Leadership in Environmental, Energy and Economic Performance Executive Order [http://www.whitehouse.gov/assets/documents/2009fedleader\\_eo\\_rel.pdf](http://www.whitehouse.gov/assets/documents/2009fedleader_eo_rel.pdf) of October 2009 which requires federal agencies to sustain environmental management through the implementation of formal environmental management systems (although ISO 14001 isn’t specifically mentioned); A similar example is from the UK, where government departments are mandated to work towards an accredited certified environmental management system such as ISO 14001 or EMAS – while progress is being made it is insufficient to ensure the target is met.

### Analysis

ISO 14001 has not been utilized as a tool to stimulate moves to a low carbon and resource efficient economy. There are a number of reasons for this:

- i. Much of the stimulus has been aimed at growing the low carbon and environmental goods and services sectors; far less activity has been directed at stimulating improvements in environmental efficiency in existing companies across all economic sectors.
- ii. There is often a failure to link resource efficiency with the move to a low carbon economy. While greening the supply of energy and electricity is a key element, it needs to be supported with reductions in total energy use – ISO 14001 is an effective tool.
- iii. In addition to supporting the supply side of the low carbon economy, very little effort has been given over to stimulating the demand side for low carbon products and services. Companies that utilize ISO 14001 are more likely to be in a position to adopt low carbon products/ services – helping to activate the low carbon market.
- iv. More work needs to be done to show the potential linkage between national policies (e.g. greening the economy, greening government operations) and ISO 14001. Policy makers need to better understand the potential environmental and economic benefits of ISO 14001.

### Summary of analysis

- ISO 14001 provides a sound tool to address/manage environmental aspects/issues that are related to (inter)national policy agendas.
- However, this is not clearly/widely recognized and an decrease of the interest in ISO 14001 related to these international policy agendas and initiatives can be recognized

**Recommended other actions**

- Provide examples of the added value of ISO 14001
- Map the ISO14000 series against initiatives (e.g. UNFCCC MRV) and provide briefing notes on the applicability of ISO 14000 standards
- Give a role to the CAG Stakeholder Forum in promoting the use of ISO 14000 standards in the context of international policy agendas/initiatives
  - Note: Focus on life cycle approach and (indirect) environmental aspects related to value chains may enhance the role of ISO 14001

**Annex A – Membership of the Study Group on future challenges for EMS**

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## Report of the future challenges for EMS task force to ISO/TC 207/SC 1

**Dick Hortensius**  
**16 July 2010**



Titel presentatie

1

## Mandate of the task force

- The group will look into future challenges facing environmental management systems including stakeholder needs, since ISO 14001 was first published in 1996.
- The group will also consider new approaches and methods in the field of EMS. The SG will report to SC 1 at its next plenary meeting.

## Themes/challenges that have been considered

1. EMS as part of sustainability and social responsibility
2. EMS and (improvement of) environmental performance
3. EMS and compliance with legal and other external requirements
4. EMS and overall (strategic) business management
5. EMS and conformity assessment
6. EMS and the uptake in small organisations
7. EMS and environmental impacts in the value/supply chain
8. EMS and engaging stakeholders
9. EMS and parallel or sub systems (GHG, energy)
10. EMS and external communication (including product information)
11. Positioning of EMS in (inter)national policy agendas

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## Process since the meeting in Cairo

- Establishing a framework for the consultation document
- Development of the consultation document by the moderators
- Circulation of consultation document for comments and additions
- Distribution of comments received
- Meeting in Leon with 33 persons present
- Preparation of recommendations to TC 207/SC 1

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## General considerations

- Clarify/map the interrelationship between the various ISO 14000 standards
- Positioning of ISO 14000 series in the perspective of sustainable development/SR

## General recommendations (I)

- Provide a clear overview of the relationships between all standards in the ISO 14000 series for the benefits of companies in the form of a brochure and/or poster
- Provide briefing notes/fact sheets on e.g.:
  - How to apply ISO 14001 for GHG management
  - How to apply ISO 14001 to address SR
  - How to apply ISO 14001 to managing the supply chain

## General recommendations (II)

- All themes should be taken into account during the next revision of ISO 14001 because they are important for the future relevance of ISO 14001 by addressing the specific recommendations given hereafter

## General recommendations (III)

- When considering new requirements, it should be remembered that ISO 14001 is a tool to improve environmental management; new requirements should not be set in such way that they only reflect 'best in class' levels that will dissuade or exclude entry level organizations from adopting this standard. The use of 'maturity matrices' should be considered to show how requirements can be applied in an increasingly comprehensive manner
- An organization should retain the responsibility to align its ISO 14001 processes with its priorities



## Theme 1 - EMS as part of sustainability and social responsibility

- Current situation:

- No conceptual differences between the approaches in ISO 14001 and ISO 26000 in addressing environmental issues
- ISO 14001 defines a generic management system to address all types of environmental aspects  
ISO 26000 is not a MSS but provides guidance on specific environmental principles, issues and recommended actions
- ISO 14001 defines a system than can be used as a basis to implement (the 'planet' part of) SR/26000

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## Theme 1 - EMS as part of sustainability and social responsibility

- Recommendations regarding revision of ISO14001:

- Strengthen attention for subjects such as:
  - > Transparency/accountability with respect to environmental management/issues/performance
  - > Value chain influence/responsibility
- Put environmental management more clearly in the perspective of contributing to sustainable development (the 'planet pillar' of SR)
- Broaden/clarify the concept of Prevention of Pollution
- Address other principles from ISO 26000, clause 6.5
- Consider aligning language between ISO 26000 and ISO 14001

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## Theme 2 - EMS and (improvement of) environmental performance

- Current situation:
  - ISO 14001 is aimed at achieving improvements in overall environmental performance, however, in the text this not always very straight forward
  - “Continual improvement of the EMS in order to achieve improvements in overall environmental performance, i.e. in the measurable results of the organization’s management of its environmental aspects”

## Theme 2 - EMS and (improvement of) environmental performance

- Recommendations regarding revision of ISO 14001:
  - Clarification of the requirements of (improving) environmental performance in ISO 14001
  - Strengthen performance evaluation as part of 4.5.1 in ISO 14001 (e.g. use of indicators); consider in this respect the ways in which performance evaluation addressed in ISO 14031, in ISO 50001 and in non-ISO sources such as EMAS III and GRI

## Theme 3 - EMS and compliance with legal and other external requirements

- Current situation:
  - Compliance with (legal) requirements is a key concept of ISO 14001:
    - > Commitment in the policy,
    - > Identification & analysis of legal requirements,
    - > Evaluation of compliance, corrective actions,
    - > Part of management review;
  - Opinions differ on what can/should be expected from an organization with a (certified) EMS in this respect

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## Theme 3 - EMS and compliance with legal and other external requirements

- Recommendations regarding revision of ISO 14001:
  - Clearly describe and communicate the approach/mechanism of achieving legal compliance in ISO 14001 (e.g. in the Annex)
  - Address the demonstration of the commitment to legal compliance
  - Consider the notion of demonstrating knowledge and understanding of the organization's compliance status

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## Theme 4 - EMS and overall (strategic) business management

- Current situation:
  - ISO 14001 does not hinder/limit/prohibit integration with strategic business management (by definition EMS is part of the organization's management system)
  - In practice EMS is mostly operational and not linked to or part of strategic business management

## Theme 4 - EMS and overall (strategic) business management

- Recommendations regarding revision of ISO 14001:
  - Pay attention to strategic considerations of EM, benefits and opportunities not only in introduction, but also in requirements
  - Strengthen (on a strategic level) the relationship between EM and the core business of organizations, i.e. its products and services and the interaction with stakeholders (including clients and suppliers)
  - Use JTCG identical text on 'context of the organization' to strengthen link between EM and the organization's overall strategic considerations
  - Consider the implications of new (strategic) business management models for application of ISO 14001

## Theme 5 - EMS and conformity assessment

- Current situation:
  - Credibility of certification against ISO 14001 is affected by many factors outside the scope of work of ISO/TC 207/SC 1. However, differing interpretations of the ISO 14001 requirements (e.g. related to legal compliance) may also be a factor.

## Theme 5 - EMS and conformity assessment

- Recommendations regarding revision of ISO 14001:
  - Draft clear and unambiguous requirements in ISO 14001
  - Provide where necessary clearer guidance in Annex A (according to its current aim: to prevent misinterpretation of the requirements)
- Recommended other action:
  - Review the functioning of TC 207/SC 1 interpretation process and investigate the potential need to improve its functioning and whether there is a need to issue harmonized international interpretations of ISO 14001

## Theme 6 - EMS and the application in small organizations

- Current situation:
  - The requirements in ISO 14001 are suitable for application by small organizations
  - There is a growing number of “below ISO 14000 schemes’ that are applied by SME

## Theme 6 - EMS and the application in small organizations

- Recommendations regarding revision of ISO 14001:
  - Maintain the applicability of ISO 14001 to SME, e.g. by drafting/maintaining simple and understandable requirements
  - Consider the guidance given in CEN Guide 17 “Guidance for writing standards taking into account micro, small and medium-sized enterprises (SMEs) needs”
- Recommended other action:
  - Gather/establish examples of applicability of (parts of) ISO 14001 by SME, provided these can be made available via internet

## Theme 7 - EMS and impacts of products and services (in the value chain)

- Current status:

- ISO 14001 addresses the environmental aspects of products and services, including those that it can influence and herewith provides a value chain perspective to EM. However, current practices vary to a large extent

## Theme 7 - EMS and impacts of products and services (in the value chain)

- Recommendations regarding revision of ISO 14001:

- Address life cycle thinking\* and the value chain perspective more clearly in the identification & evaluation of environmental aspects related to products and services
- Clear requirements/guidance related to strategic considerations, design&development, purchasing, market&sales activities

\* This does not mean imposing LCA

## Theme 8 - EMS and engaging stakeholders

- Current status:
  - ISO 14001 addresses interested parties (views to be considered, communication, input to management review) but not as comprehensive as e.g. in ISO 26000
- Recommendation regarding revision of ISO 14001:
  - Building upon the (draft) JTCG identical text introduce a more systematic approach for identification of, consultation and communication with stakeholders on environmental issues

## Theme 9 - EMS and parallel or subsystems (sector/aspect specific)

- Current situation:
  - ISO 14001 generically applies to all types of sectors and all types of environmental issues (including energy use, GHG etc)
  - Accepted TC 207 sector, aspect and element policy
  - Emerging of (proposals for) new aspect specific MSS



## **Theme 9 - EMS and parallel or subsystems (sector/aspect specific)**

- Recommended other actions:
  - Communicate the broad applicability of ISO 14001 as well as the advantages of considering environmental aspects/issues not separately but in a broader perspective
  - Consider developing briefing notes on application of ISO 14001 for specific aspects/sectors as alternative to development of new aspect/sector specific standards (e.g. GHG)

## **Theme 10 - EMS and external communication (including product information)**

- Current situation:
  - ISO 14001 addresses external communication. It does not require voluntary pro-active external communication. It does not contain any requirements related to providing information on environmental aspects of products/services to external interested parties.

## **Theme 10 - EMS and external communication (including product information)**

- Recommendation regarding revision of ISO 14001:
  - The future revision of ISO 14001 should address a requirement to establish an external communication strategy, including communication objectives, identifying relevant interested parties, description of what and when to communicate
  - Provide guidance in the Annex on information related to environmental aspects of products and services to external interested parties

## **Theme 11 – Positioning of EMS in (inter)national policy agendas**

- Current status:
  - ISO 14001 provides a sound tool to address/manage environmental aspects/issues that are related to (inter)national policy agendas.
  - However, this is not clearly/widely recognized and an decrease of the interest in ISO 14001 related to these international policy agendas and initiatives can be recognized

## Theme 11 – Positioning of EMS in (inter)national policy agendas

Recommended other actions;

- Provide examples of the added value of ISO 14001
- Map ISO14000 series against initiatives (e.g. UNFCCC MRV) and provide briefing notes on the applicability of ISO 14000 standards
- Give a role to the CAG Stakeholder Forum in promoting the use of ISO 14000 standards in the context of international policy agendas/initiatives
  - > Note: Focus on life cycle approach and (indirect) environmental aspects related to value chains may enhance the role of ISO 14001

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**Thanks to:**

Sue Briggs, Cristina Roccha, Martin Baxter  
and all other members of the task force

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