ISO 14001 Continual Improvement Survey 2013

Final Report and Analysis

1 February 2014

Acknowledgement

ISO 14001 Continual Improvement Survey 2013: Final Report and Analysis

Executive Summary

The ISO 14001 Standard is designed to represent the state of the art for environmental management systems, providing organizations with a systematic framework to support environmental protection. Development of the third edition of the standard is directed towards continual improvement, alignment
with other management systems standards, and consideration of future challenges for environmental management systems. In order to inform this development and gain an understanding of users' and non-users' needs in relation to EMS standards, ISO/TC 207/SC 1 established an ad-hoc group (AHG) to design and administer a continual improvement survey of users, as well as non-users with an interest in the Standard.

The survey was promoted by national member bodies and issued in 11 languages in early 2013.   It garnered an unprecedented response for ISO TC 207, with close to 5000 participants in 110 countries worldwide. The profile and demographics data indicated a significant response from 'users', with 54% of the responses representing organizations that have implemented or considered implementing ISO 14001. The remaining participants represented organizations with a non-implementation interest in the standard, primarily from consultancies or certification bodies (17%); as well as individuals with knowledge of the ISO 14001 standard, including individual consultants, auditors, and academics (29%).

With respect to users of ISO 14001, 57% were based in Europe, while 11% were based in Pan-Asia, 17% in North America, 12% in South and Central America, 2% in Africa, and 1% in the Middle East, predominantly in manufacturing and processing sectors. Organizations of all sizes were represented, with 37% indicating more than 500 employees; 35% indicating 101-500 employees, and 28% with fewer than 100 employees.

Survey Design

The survey questionnaire included ISO 14001 user profile and demographic inquiries, as well as questions related to the perceived value of the ISO 14001 standard for both business management and environmental management, and the extent to which ISO 14001 should address or strengthen attention to future challenges for environmental management systems.[1] A detailed discussion of survey design is provided in the Survey Design Report.

Findings

I.   The Value of ISO 14001

For environmental management, responses from users suggest that organizations have realized significant value from ISO 14001 for environmental management, most notably in terms of meeting legal requirements, improving environmental performance, and enhancing management commitment and employee engagement. Responses from users also suggest that ISO 14001 has provided considerable value for business management, most notably for meeting stakeholder requirements, improving public image, achieving strategic objectives, and integrating with business management systems.

Users indicated more limited value in ISO 14001 Annex A and ISO 14004 as supporting resources for ISO 14001 implementation. Overall, these results suggest that awareness of the purpose and content of ISO 14001 Annex

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[1] As identified in the ISO/TC 207/SC 1 Future Challenges Study Group N 9 "Final report on the future challenges of EMS and ISO 14001."

A and ISO 14004 could be enhanced, and that users of ISO 14001 perceive a benefit from additional clarification and guidance.

II. Perspectives on Future Challenges for Environmental Management Systems

Users were asked to indicate the extent to which ISO 14001 and 14004 should strengthen attention to 19 environmental management concepts identified in the ISO/TC 207/SC 1 Future Challenges Report.   The responses favored a 'strong' approach for the concept of prevention of pollution, suggesting the need to strengthen attention to this concept in the ISO 14001 requirements clauses.   For all other Future Challenges concepts, the majority of responses suggested a limited to moderate approach that provides clarification and guidance. However, weighted average ratings and percent-based response comparison suggest that the eco-efficiency concept of *'implementing strategies for efficient use of resources, and for reducing waste and pollution'* and the life cycle thinking concept of *'identifying and evaluating environmental aspects related to the life cycle of products and services'* may merit further attention. Both concepts came very close to a weighted average of 3.0, the threshold for a 'strong' approach.

III. Recommendations for ISO/TC 207/SC 1 Working Groups 5 and 6

The survey results indicate conceptual areas, based on user views in particular, where WG 5 and WG 6 should consider focusing attention:

1. Consider strengthening attention to the concept of *prevention of pollution: avoiding, reducing, and controlling waste and pollution in order to reduce adverse environmental impacts*, in ISO 14001 requirements.

2. Consider strengthening attention to the concept of *eco-efficiency: Implementing strategies for efficient use of resources, and for reducing waste and pollution*, in ISO 14001 requirements.

3. Consider strengthening attention to the concept of *life cycle thinking: identifying and evaluating environmental aspects related to the life cycle of products and services,* in ISO 14001 requirements.

4. For other future challenge concepts, consider clarifying these concepts by offering clear information and guidance in ISO 14001 Annex A and ISO 14004, as appropriate. Where appropriate, requirements in ISO 14001 may also be clarified further by using clear and simple language, phrasing and sentence structure in the requirements text.

5. Consider expanding the content of ISO 14001 Annex A to offer more clear information and explanatory text in relation to the requirements in corresponding ISO 14001 clauses.

6. Consider expanding the content of ISO 14004 to provide additional examples and practical help on EMS implementation.

7. Consider opportunities for promoting and improving awareness of Annex A and use of ISO 14004.

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<u>Introduction</u>

This report has been prepared by the ISO/TC 207/SC 1 Ad-hoc Group (AHG) for the "User Survey for ISO 14001". This AHG was established by ISO/TC 207/SC 1 Resolution 11/2012 with the following mandate:

- The AHG will develop, administer and analyse the results of a user survey to inform the revision of ISO 14001 as well as that of ISO 14004.
- The user survey will be aimed at developing an understanding of current and potential users and non-users' needs (now and in the future) in relation to EMS standards. The term 'users and non-users' is intended to encompass a broad range of groups including organizations that directly implement the standards (users), as well as organizations with other interests in the standards such as regulators, academia, and industry groups.
- The survey will be aimed at all interested parties, including SMEs and micro businesses, and will include questions to establish basic survey population statistics.
- The AHG will take into account key topics from the ongoing discussions in Working Group 5 (WG 5) concerning ISO 14001, and Working Group 6 (WG 6) concerning ISO 14004, as well as the aim of continual improvement.

This report provides a technical summary of survey results and analysis. Information on survey design and background are addressed the Survey Design Report, and additional results are provided in the Supplemental Results documentation.

Section I: Profile and Demographics

The profile and demographics data indicated a significant response from organizations that have implemented ISO 14001 or have considered implementing it: 54% of those responding represented 'user' organizations. 74% of these organizations had fairly mature management systems that had been in place for more than four years, and 94% maintained ISO 14001 certification.

The remaining 46% of respondents represented

- organizations with a non-implementation interest in the standard, primarily from consultancies or certification bodies (17%), and

- individuals with knowledge of the ISO 14001 standard, including consultants, auditors, and academics (29%), as shown in Figure 1.
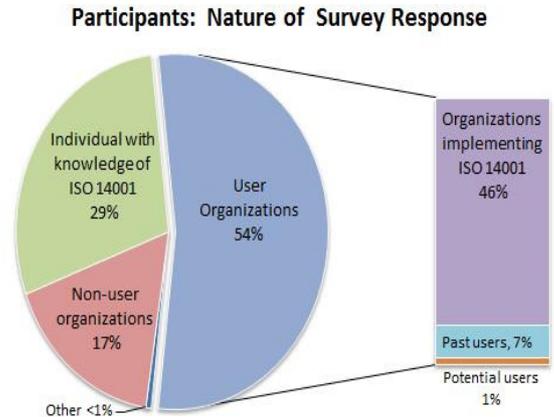

Figure 1: Nature of Response

Industry Sector: Among current, past and potential ISO 14001 users, 68% of those responding were associated with secondary industry, in manufacturing and processing sectors. 26% represented service-oriented or intellectual activities, and 7% represented natural resource extraction or harvesting sectors.

Organization Size: 37% of those who responded represented large organizations with more than 500 employees, while 14% represented organizations with 251-500 employees. A significant number of responses also came from small and medium organizations, with 28% from organizations with 100 employees or fewer, and 21% with 101- 250 employees.

Regional Distribution: Geographically, over half of the user organizations were based in Europe (57%), while 11% were based in pan-Asia, 17% in North America, and 12% in South and Central America. Only 2% of responses came from organizations in Africa, and 1% represented the Middle East. North American responses were largely comprised of U.S. responses, with only 3% representing Canada and 10% representing Mexico. Figure 2 sets out the distribution of responses from ISO 14001 users.
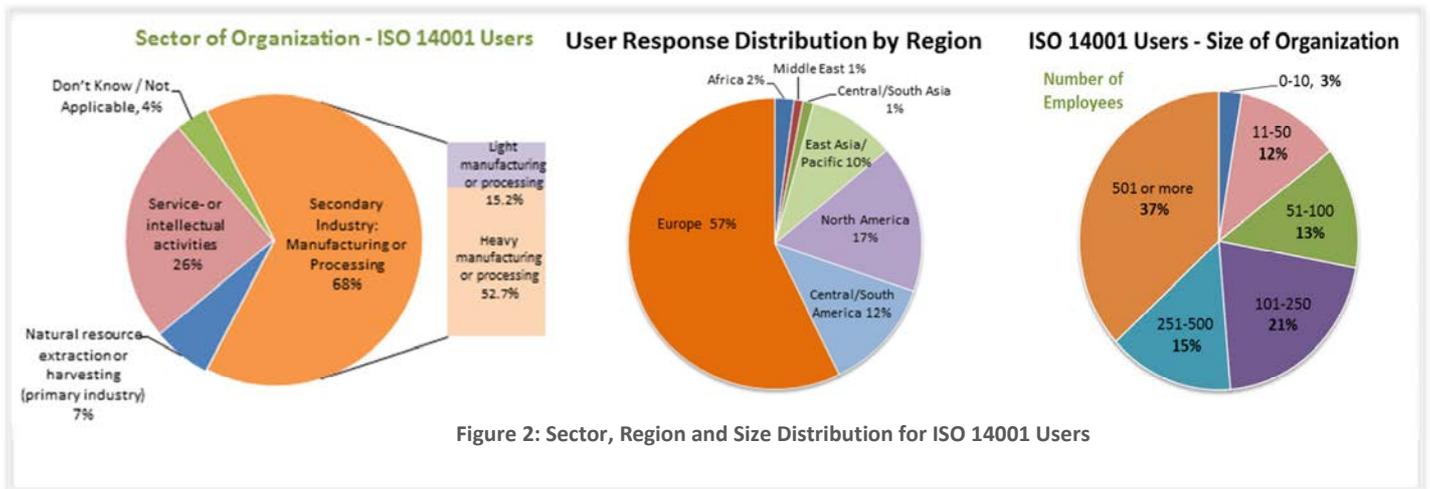

Figure 2: Sector, Region and Size Distribution for ISO 14001 Users

Additional user profile results can be found in the Supplemental Results documentation.

Section II: Value of ISO 14001 and Related Resources

Question Set (A): Value of ISO 14001 for Environmental and Business Management

Responses to Question Set (A) suggest that organizations that implement ISO 14001 have realized significant value for both business management and environmental management factors. With regard to environmental management, responses from users suggest that organizations have realized value most notably in terms of meeting legal requirements, improving environmental performance, and enhancing management commitment and employee engagement. Close to 75% of participants indicated 'high' or 'very high' value for meeting legal requirements and improving the organization's environmental performance, while more than 60% indicated 'high' to 'very high value' for management commitment and employee engagement. Over 85% indicated *at least* a moderate value in all categories except improvement in supplier environmental performance. 63% of user responses indicated at least moderate value in this area.

Responses from users also suggest that ISO 14001 has provided considerable value for business management, most notably for meeting stakeholder requirements, improving public image, achieving strategic objectives, and integrating with business management systems. More than half of participants indicated 'high' to 'very high' value, and more than 80% indicated *at least* a moderate value in these areas. Furthermore, 78% and 63% of responses indicated *at least* a moderate value for providing a competitive advantage and financial benefit, respectively. Figure 3 sets out the overall value responses from ISO 14001 users.

These results correspond with reported motivations for adopting the Standard, as shown in Figure 6. Based on user rankings of factors influencing their adoption of the standard, the strongest environmental drivers[2] for adopting ISO 14001 included commitment to environmental protection/conservation, and reduction of risk of adverse environmental impact. Primary influences related to business management included customer requirements and public image. However, while opportunities for integration with other management standards applied by the organization (such as ISO 9001,

Figure 3: Value of ISO 14001 for Users

Figure 4: User Motivations for Adopting ISO 14001

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[2] Factors were ranked from 1-8, with 1 having the highest importance. The lower the average rank, the higher the degree of influence, on average.
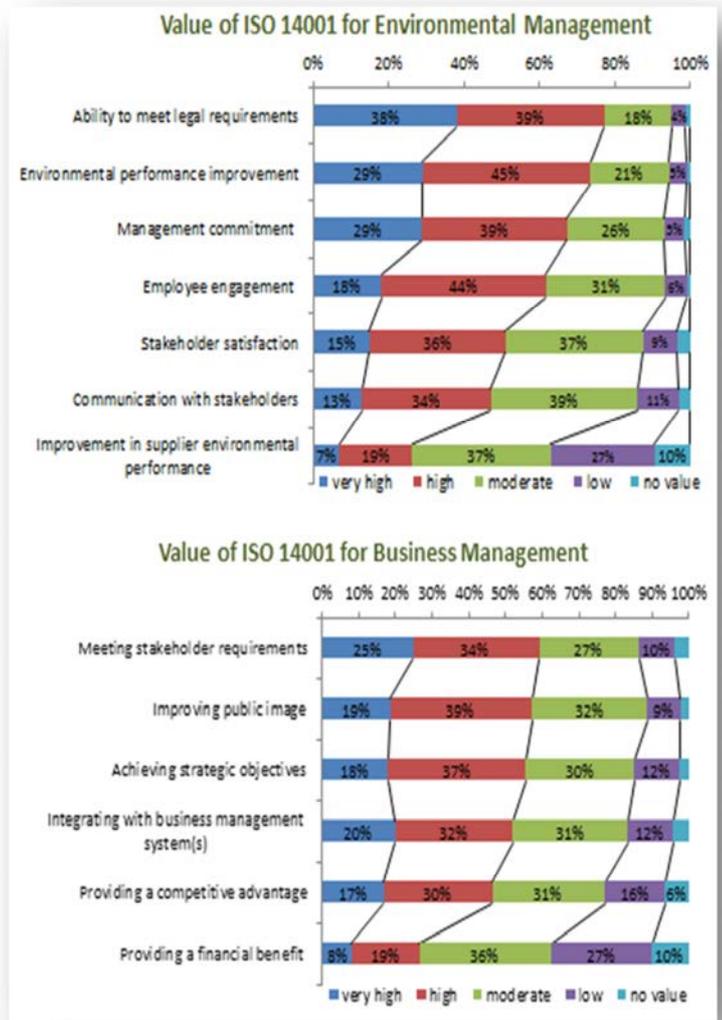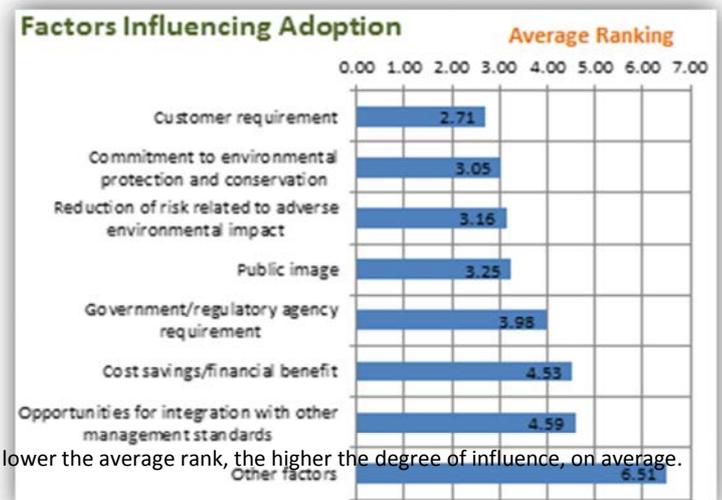
ISO 50001, ISO 26000, and OHSAS 18001) were not ranked in the top tier as a motivating factor, more than half of user responses indicated high value for business management in this area.

Question Set (B): Value of ISO 14001 Resources

Responses to Question Set (B) indicate opportunities for improvement in terms of improving content and raising awareness in relation to ISO 14001 Annex A and ISO 14004. For Annex A, while the majority of user respondents found it to be at least moderately useful, 64% indicated that they rarely or never consult it. 64% of all responses suggested to improve the clarity or expand the content. Figure 5 illustrates the responses relative to the value of Annex A, including consultation and use results by response type: users, non-user individuals, and non-user organizations (interested parties).
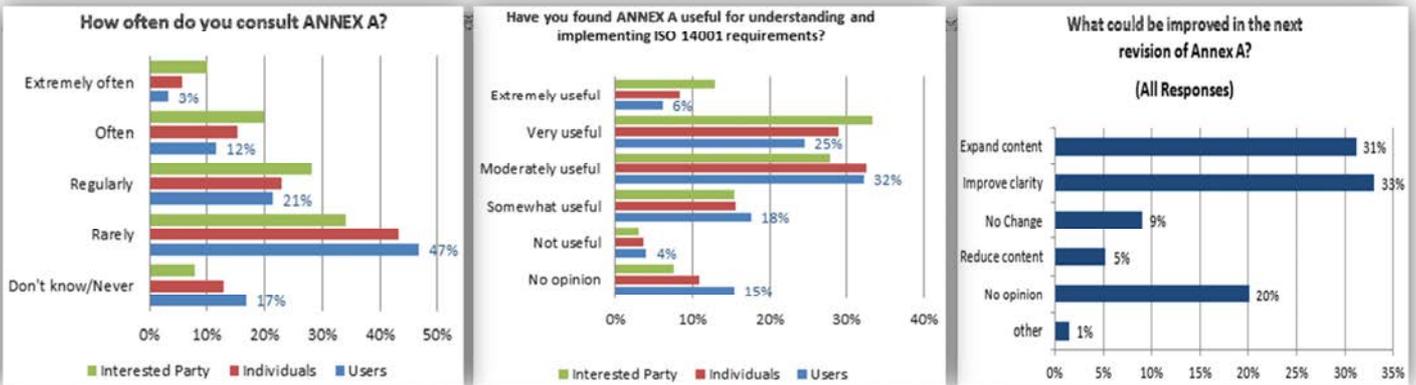

Figure 5: Consultation and Use of ISO 14001 Annex A

For ISO 14004, the majority of users indicated that they found it to be at least moderately useful, 68% indicated that they rarely or never consult it, or don't know. 25% found it not useful or don't know, and 57% of all responses suggested that ISO should improve clarity or expand the content. Figure 6 illustrates the results by response type for the consultation of ISO 14004 and its usefulness for implementing ISO 14001, as well as overall results for what could be improved. Additional information and charts relative to user resources are provided in the Supplemental Results documentation.
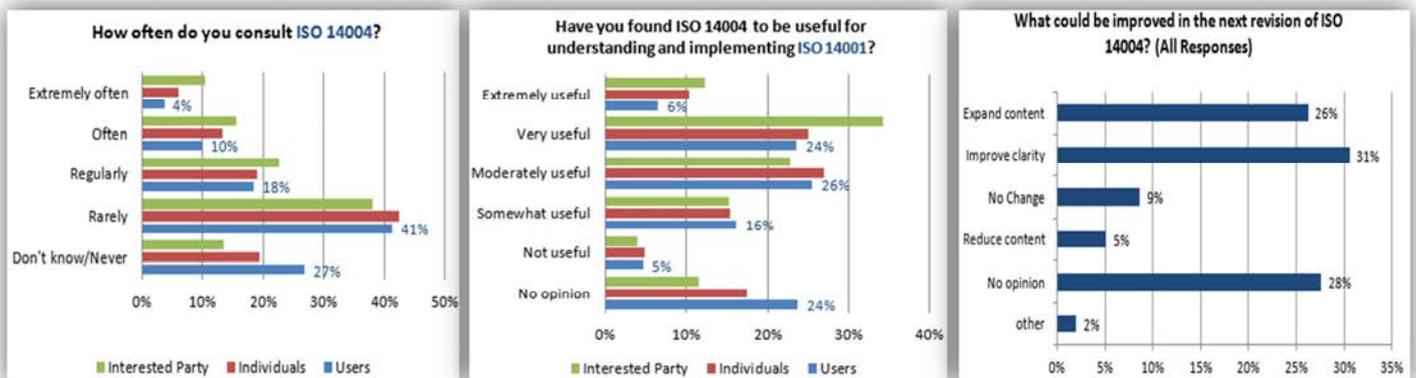

Figure 6: Consultation and Use of ISO 14004

Overall, these results suggest that awareness of the purpose and content of ISO 14001 Annex A and ISO 14004 could be enhanced, and that users of ISO 14001 perceive a benefit from additional clarification and/or expanded content.

Section III: Future Challenges

Responses in Section III came from all three participant groups: 'user' organizations, non-user organizations, and non-user individuals. Participants were asked to indicate the extent to which ISO 14001 and 14004 should strengthen attention to 19 environmental management concepts identified in the ISO/TC 207/SC 1 Future Challenges Report, as follows:

(1) NOT AT ALL – current requirements are adequate; or
(2) LIMITED EXTENT – should be addressed by providing clear information; or
(3) MODERATE EXTENT – should be addressed by providing information and guidance; or
(4) STRONG EXTENT – should be addressed with new requirements.

Explanatory text for Future Challenge concepts is provided in the Survey Design Report and the survey questionnaire.

Based on a weighted average for the Likert-scale responses from 1-4, participants suggested a limited to moderate approach for all future challenge concepts except the prevention of pollution. This was indicated by a weighted average rating that fell between 2.0 and 3.0. For *prevention of pollution: avoiding, reducing, and controlling waste and pollution in order to reduce adverse environmental impacts*, responses leaned toward a stronger approach, with a weighted average of 3.12, suggesting the need to strengthen attention to this concept in ISO 14001 requirements.

In addition, concepts of *eco-efficiency: Implementing strategies for efficient use of resources, and for reducing waste and pollution*; and *life cycle thinking: identifying and evaluating environmental aspects related to the life cycle of products and services,* came very close to a weighted average rating of 3. These concepts may merit additional consideration in Working Group 5 in terms of strengthening the concepts in appropriate clauses of ISO 14001. Figure 7 shows the overall distribution of responses for Future Challenge concepts, as well as weighted average ratings.
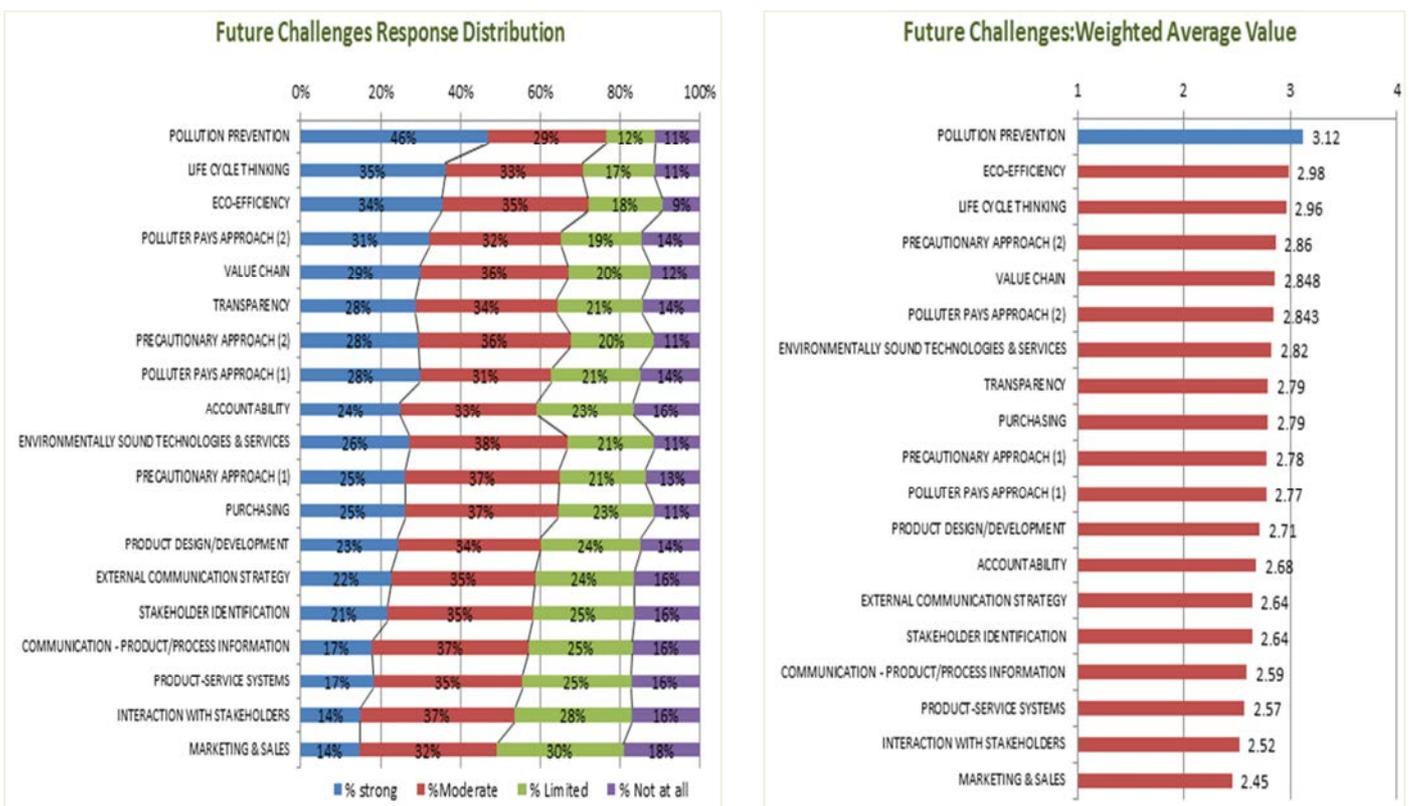

Figure 7: Future Challenges Response Distribution

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Concerning the distribution across the four response levels, responses overall fell largely in the limited to moderate range, suggesting the need for more clarification, clear information, and guidance. For all future challenges other than prevention of pollution, a majority of responses suggested a limited to moderate approach that provides clarification and guidance, rather than new requirements. However, for prevention of pollution, 46% indicated a strong approach, consistent with the weighted average rating results.

Compared to user organizations, the non-user organizations and individuals (predominantly representing consultancy or certification orientations) generally favored a stronger approach. User organizations leaned toward a slightly more restricted approach, ranging from 'no change' to 'moderate'. Additional results based on response type are provided in the Supplemental Results documentation.

Concerning Remarks: Considerations for WG 5 and WG 6

The survey results indicate areas, based on user views in particular, where WG 5 and WG 6 should consider focusing attention:

1. Consider strengthening attention to the concept of *prevention of pollution: avoiding, reducing, and controlling waste and pollution in order to reduce adverse environmental impacts*, in ISO 14001 requirements.

2. Consider strengthening attention to the concept of *eco-efficiency: Implementing strategies for efficient use of resources, and for reducing waste and pollution*, in ISO 14001 requirements.

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4. For other future challenge concepts, consider clarifying these concepts by offering clear information and guidance in ISO 14001 Annex A and ISO 14004, as appropriate. Where appropriate, requirements in ISO 14001 may also be clarified further by using clear and simple language, phrasing and sentence structure in the requirements text.

5. Consider expanding the content of ISO 14001 Annex A to offer more clear information and explanatory text in relation to the requirements in corresponding ISO 14001 clauses.

6. Consider expanding the content of ISO 14004 to provide additional examples and practical help on EMS implementation.

7. Consider opportunities for promoting and improving awareness of Annex A and use of ISO 14004.

Annex A: Membership of the Ad-Hoc Group – User Survey ISO 14001

AHG LEADER:
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