



## Joint ANEC / ECOS comments on the ISO 14000 series review

This review highlights the major flaws of the main documents of the ISO 14000 standard series developed by ISO TC 207 and gives an outline of necessary changes and additions from a consumer and an environmental perspective.

### 1. ISO 14001 – Environmental management systems

ANEC, BEUC, ECOS and EEB questioned in a joint position paper (Making EMAS a system of excellence - Going beyond EMS, October 2006) the usefulness of the European EMAS scheme in its present form and called for a substantive reform: a transformation into an eco-label for companies or a true system of excellence. Major shortcomings of the present system were stated to include a lack of performance requirements and the absence of a mandatory set of comparable performance indicators which would allow for a differentiation between good and bad performers.

Environmental management systems (EMS) have been subject to criticism since they were created and promoted in the early nineties. The following main objections were raised:

- The approach tends to shift decision-making on environmental performance issues from democratic institutions, involving public interest advocates, to companies.
- The business interest is limited to environmental investments which pay off, whilst many protection measures are not profitable.
- EMS systems do not require a minimum environmental performance and even legal compliance cannot be taken for granted.

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- EMS certifications do not allow for a differentiation between good and bad performers.
- Tax reductions or reduced governmental controls linked to EMS compliance are questionable because of the fact that such compliance does not mean better environmental performance.
- There is not much convincing evidence on the table which would suggest that the implementation of an EMS standard has indeed boosted environmental performance.

Reporting requirements are either missing (ISO 14001), or inadequate (EMAS), lacking clearly defined key indicators of environmental performance and scales of comparison.

From this analysis the conclusion was drawn that minimum performance requirements should be defined – both generic and sector specific - based on the state-of-the-art, using BREF and other documents describing best industry practice, eco-label criteria for products, “black lists” of chemicals intended to be phased out and other information. Further, it was stated that the obligation to comply with legal provisions should be reinforced, that organisations should comply with all applicable international environmental agreements using shorter timescales compared to the legal implementation periods (e.g. for the phasing out of chemicals), and that multinational organisations should be required to apply the same (high) environmental criteria in all countries they operate. Whilst the establishment of minimum performance requirements may be more appropriately carried out in the EMAS framework, the other aspects may be incorporated in ISO 14001 as well.

Several recommendations were made with respect to indicators:

- A set of key environmental indicators should be defined - both generic and sector-specific - allowing comparisons between different organisations by using appropriate references for normalisation (e.g. using energy intensities rather than energy amounts).
- These indicators should also relate the actual performance to legal provisions, best practices (BAT) and other benchmarks using appropriate scales.
- Methods for overall performance ranking should be developed and the achieved scores of all participants should be made publicly available on a website.
- Detailed reporting requirements should be established allowing the reader to understand how good the environmental performance is. Levels of excellence need to be defined.

It may be worth considering whether a standard could be developed in this respect. However, it would seem more promising to launch such a project within CEN rather than ISO.

## **2. ISO 14020 series – Environmental labels and declarations**

### **2.1. Fundamental issues regarding the whole ISO 14020 series**

Due to a number of shortcomings this standard series on environmental labels and declarations needs a fundamental revision as outlined below. A major deficiency is the omission of existing marks of high relevance to consumers in the current classification scheme (types I-III). This includes, for example, labels dealing with environmentally sound production methods e.g. for organic farming or sustainable forrest management (such as the label issued by the Forrest Stewardship Council, FSC) which are sometimes referred to as type I “like” labels as they do not cover all stages of the life cycle as required in ISO 14024. The European energy labelling scheme for household appliances which requires to display the energy consumption (together with other information) using a coloured, graded scale (letters A to G) is another example for this. The latter is widely acknowledged as an efficient instrument to improve energy efficiency but is entirely outside of the classification. The non-coverage of these labels by the ISO typology is not understandable as some of these marks have a much higher market relevance, have driven the market more efficiently in the direction of environmental protection, and are much more beneficial to the consumer compared to some other forms of environmental information which are included in the scheme. The problem should be solved either by defining additional types or by broadening the scopes of existing types (e.g. by incorporating type I like labels in ISO 14024).

The possible expansion of the scope of the type I eco-label to incorporate sustainability issues (e.g. child labour) and health an safety aspects is currently discussed in Europe. Whilst consumer and environmental organisations are open to such a move they think that practical constraints must be taken into account (e.g. the lack of credible certification bodies dealing with human and labour rights). Hence, social issues may be more a long term target. The coverage of the health and safety dimension may be easier to accomplish and should be considered.

ISO 14024 requires to take into account fitness for purpose of the product and levels of performance. However, product performance is an issue for all types of environmental declarations and should be given more emphasis in the revision of the standard series.

### **2.2. Major issues relating to individual standards ISO 14020, 14021, 14024 and 14025**

#### **2.2.1. ISO 14020 “Environmental labels and declarations – General principles”**

Principle 2 establishes that “Procedures and requirements for environmental labels and declarations shall not be prepared, adopted, or applied with a view to, or with the effect of, creating unnecessary obstacles to international trade”. It is recommended to follow the applicable guidance of WTO to ensure that this principle is implemented in practice. Whilst the WTO rules are referred to in the standard, international environmental agreements are completely ignored indicating the inferiority of environmental rules to trade rules. In fact, the latter need to be put on the same level as the former.

To this end, principle 2 should be amended to signal an equivalence of both sets of rules and to clarify that environmental labels and declarations shall also follow international environmental agreements. In fact, environmental labels and declarations should even go beyond regulatory provisions in the environmental field, e.g. by conforming to environmental agreements before permitted transitional periods expire.

Principle 5 establishes that “The development of environmental labels and declarations shall take into consideration all relevant aspects of the life cycle of the product”. However, not even the standards of the ISO 14020 respect this principle. An example for this is a cradle to gate type III declaration in accordance with ISO 14025 (covering only the life cycle stages up to the point the product leaves the factory) or a claim of recyclability in accordance with ISO 14021. Whilst the importance of life cycle considerations is undisputed it is also clear that it is not useful to declare it as a fundamental principle for ALL types of environmental declarations. This principle seems to require rewording.

### **2.2.2. ISO 14021 Environmental labels and declarations – Self-declared environmental claims**

A self-declared environmental claim is according to the definition provided a “claim that is made, without independent third-party certification, by manufacturers, importers, distributors, retailers or anyone else likely to benefit from such a claim”. However, many of the claims covered in the standard (such as on recyclability) can be also made using a third party e.g. in the context of a type III declaration. The absurd consequence is that then the requirements do not apply. Bearing in mind that the definitions of type I and type III declarations focus on the type of information provided rather than on the body issuing the declaration it would seem to be more logical to drop the concept of a self-declared claim and convert the standard into a “single issue” claims document (with or without third party involvement). Thus it could also include labels like the European energy labelling scheme and others requiring to declare specific values (e.g. energy, petrol consumption, etc.) based on the same principles, including the use of graded scales.

Many of the specific requirements (e.g. on compostability, reusability etc.) are insufficient and vague. Efforts should be made to limit the room for interpretation by making these requirements more precise.

### **2.2.3. ISO 14024 Environmental labels and declarations - Type I environmental labelling - Principles and procedures**

A major deficit of the standard is the inadequate coverage of the selectivity of a type I scheme. This is an issue which is currently discussed in the revision of the EU eco-labelling system. NGOs want a clearly defined ambition level (e.g. best 20%) and procedures to achieve this goal when establishing product specific criteria. The ISO standard 14024 follows the concept of “environmental preferability” which is distinct from the concept of environmental excellence. 99% of the products on the market may be “preferable” to the worst performing 1%. On that basis almost all products would be eligible for being awarded in conformity with ISO 14024 a type I eco-label – and this is ridiculous! Consumers are willing to pay an increased price for a product only under the condition that the product has an outstanding performance. Type I labels are highly appreciated (more than many other types of

environmental marks) from a European consumer perspective provided that the excellence level is ensured. The revision should add requirements with the aim to ensure full transparency on the ambition level of the scheme overall and the specific product criteria.

Additionally, other changes should be considered. For instance, periods of validity and review periods of the product criteria should be limited to a maximum of 3 years.

The eco-label body could entirely rely on data from industry. It should be considered to address third party testing e.g. by specifying a minimum proportion of awarded products that should be subject to such testing (e.g. based on a randomised approach). A clear description of third party involvement in the testing needs to be required by the standard.

#### **2.2.4. ISO 14025 Environmental labels and declarations — Type III environmental declarations — Principles and procedures**

Some progress has been made in the preparation of ISO 14025 following interventions from ANEC, e.g. by introducing requirements for additional environmental information and for Business to Consumer declarations including verification by third parties, the need to cover the whole life cycle of a product, and the obligation to involve consumer and environmental interest representatives in the development of type III declarations (sometimes referred to as Environmental Product Declarations, EPDs). However, such schemes are of big concern to consumers (and environmentalists). Typically, the environmental relevance of the presented data based on indicators from Life Cycle Assessment (LCA) studies remains unclear and no benchmarks or scales (such as the one used in the EU energy label scheme) are provided to facilitate the recognition of products which have a good or excellent environmental performance. The comprehensibility by consumers and other parties (e.g. in the procurement field) is thus rather poor and, as a result, it is unlikely that the use of such declarations will meet the main objective of the standard: “The overall goal of environmental labels and declarations is to encourage the demand for, and supply of, those products that cause less stress on the environment, through communication of verifiable and accurate information that is not misleading, thereby stimulating the potential for market-driven continuous environmental improvement”.

From this follows that the communication of LCA indicators (especially in the B to C context) makes only sense if a) the indicator is environmentally significant; b) there is a significant difference between the products in question; c) this difference can be made visible in the scheme by using suitable benchmarks or graded scales. This would have to be determined before an EPD system is launched. Otherwise an EPD becomes a purpose by itself – using a tool for its own sake, some sort of LCA recycling.

Whilst B to C declarations need to cover the whole life cycle of the product this is not the case for B to B declarations. Following the principle of modularity (clause 5.4), an EPD may be limited to certain parts of the life cycle. On the other hand it is stated that “in the development of Type III environmental declarations, all relevant environmental aspects of the product throughout its life cycle shall be taken into consideration and become part of the declaration” (clause 5.3, Life cycle basis). It is obvious that there is a tension between both principles despite the fact that the standard requires to state and justify omissions. It would be more appropriate to make these omissions transparent by reserving the

term “type III declaration” or “EPD” to declarations which indeed cover the full life cycle. Declarations based on one or more modules should be referred to as “type III (or EPD) modules”.

Further shortcomings of the standard include the lack of detailed provisions on various aspects, e.g. to ensure that indeed all significant environmental aspects of a product are covered (aspects not typically dealt with in LCA studies such as toxicological risk assessment, local effects, particles, radiation), as well as missing provisions for substance declarations or graphical presentations. It should also be noted that the selection of the environmental parameters in current approaches is widely left to industry and or program operators. A democratic process involving balanced representation and decision-making which is the condition for any meaningful environmental information scheme is typically not ensured. Public consultations via the internet are not to be considered as a substitute for this. In fact, only the state can ensure such a process. The standard also provides for the possibility for a single company to become a program operator which is rather ridiculous. In fact, the program operator should be an independent third party or a governmental institution operating at the national or regional level. Third party verification should also be a must for B to B declarations.

Together, all these deficits make type III declarations an ideal marketing instrument pretending environmental superiority where there is essentially mere random data not connected to any quantified goal determined in an objective and credible manner. The environmental achievements can thus not be determined. ANEC has commissioned research work to overcome some of these problems. However, as outlined before not all of the problems can be resolved within standardisation.

## **2.3. Combining elements from different types and going beyond existing schemes**

### **2.3.1. Combining types I, II, III**

A useful declaration system may need to combine elements from several types (including from new ones)! Examples of existing practices include the EU energy labelling scheme + type I compliance (e.g. for washing machines), FSC label + type III information (e.g. for paper products) or a statement in a type III declaration that a product is recyclable (type II). This is an important aspect which needs to be covered in a future standard series. Eventually this should lead to new schemes as outlined below.

### **2.3.2. Intelligent future Environmental Data Sheet (EDS)**

A comprehensive environmental information system suiting the needs of all parties concerned will have to combine elements of all types of environmental declarations (including new ones) in a systematic manner, depending on the respective product category. In other words, it will have to be based on an initial analysis of the environmental impacts of the products and will identify the important aspects using a variety of different tools. In a B to C context it will be essential to avoid an information overflow and to present the indicators in an easy to understand manner. For example, it will not be

useful to develop a life cycle based GWP<sup>1</sup> indicator for products which have a high energy consumption during use (cars, heating appliances). For such products it may be more important to focus on the use phase of the life cycle and to display e.g. the petrol consumption of a car using a graded scale (and not more). Conversely, where most of the environmental burdens occur in the production phase it may be more useful to focus on e.g. emissions during production. Where the burdens are equally distributed LCA indicators may be used. The appropriate benchmarks will have to be defined in a transparent process that balances public and economic interests in a credible way.

The Environmental Data Sheet would include the following elements, where appropriate:

- selected (normalised) LCA-indicators (e.g. GWP per € output, material intensity, etc. using graded scales showing best and worst performing products)
- selected production indicators (e.g. air emissions relative to legal thresholds and excellence levels, compliance with organic farming labels)
- selected use phase indicators (e.g. energy, noise, indoor air pollution, product performance using legal thresholds or worst performing products and excellence levels)
- chemicals declaration (e.g. all chemicals above a certain threshold)
- end of life info (e.g. recyclability, % recycled, degradability, disposal instructions)
- other (e.g. biodiversity)

This (horizontal) element of a future standard series could be the result of a transformation of ISO 14025 or could become a type on its own. The needs of different users (e.g. average consumer, sophisticated consumer, professional user, scientist, etc.) should be reflected and lead to labels and declarations of different levels.

### **2.3.3. Future sustainability data sheet (SDS)**

In the medium/long run health and safety as well as social aspects could be incorporated. The environmental data sheet could be expanded along the following lines:

- Environment: see previous section
- Health & safety: safety features above legal minimum (e.g. car safety - NCAP<sup>2</sup> star system for passenger and pedestrian safety, 1-5 stars)

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<sup>1</sup> GWP – Global Warming Potential

<sup>2</sup> The European New Car Assessment Programme (Euro NCAP) is a European car safety performance assessment programme founded in 1997. It publishes safety reports on new cars, and awards 'star ratings' based on the performance of the vehicles in a variety of crash tests, including front, side and pole impacts, and impacts with pedestrians. For more information: <http://www.euroncap.com>

- Social: ILO conventions (e.g. no child labour) including supply chain, use of fair trade products (e.g. of cocoa beans in the production of chocolate)

A stepwise approach may be advisable. The coverage of health and safety aspects may be easier to accomplish than the social dimension. However, these aspects should be part of a strategic discussion regarding the revision of the ISO 14020 standards series and may be gradually incorporated.

### 3. ISO 14031 Environmental performance evaluation

This standard claims to give “guidance on the design and use of environmental performance evaluation within an organization” applicable to all kinds of organizations. However, it is hard to see any meaningful guidance beyond purely procedural issues. No guidance is offered regarding the selection of indicators. The document follows an “anything goes” approach. It does not define a minimum set of indicators let alone any benchmarks to compare the performance of different organisations. This is a serious omission.

Some indicators are only mentioned in an informative annex as examples. One could consider the standard as a directory of options or a vendor’s tray. Not even proper definitions of the proposed indicators are provided, e.g. how an indicator for greenhouse gases should look like. The indicator entitled “quantity of air emissions having global climate-change potential” does not even recommend to use the commonly used GWP indicator. One would expect at least a reference to sources describing the most widely used indicator models or more elaborate guidance papers.

It is significant that many proposed indicators are of little use, in particular for benchmarking, which is a very important aspect of performance assessment. This is further explained using indicators for emissions as example. The standard suggests:

“If management’s interest is in environmental performance related to the emissions to air from its operations, possible OPIs<sup>3</sup> include:

- quantity of specific emissions per year;
- quantity of specific emissions per unit of product;
- quantity of waste energy released to air;
- quantity of air emissions having ozone-depletion potential;
- quantity of air emissions having global climate-change potential”.

The first sentence is highly questionable as it is a matter of course that companies that have emissions need to incorporate them in any meaningful performance assessment. Anything else would

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<sup>3</sup> OPI – Operational Performance Indicator



make the entire effort useless. The “quantity of emissions” – absolute or related to a time frame of one year - hardly allows any assessment of the performance of the organisation because the necessary reference values will normally not be available. A much more straightforward approach would be to put into relation the concentrations of pollutants in the exhaust fumes to legally permitted values (typically indicated in mass per m<sup>3</sup>) and to state-of-the-art reference values (such as the BREF documents describing the Best Available Technique). This allows an assessment of the performance: the closer the value is to BAT the better it is. The closer the value is to the limit value the worse it is.

In conclusion, ISO 14031 has little to offer. It is not by chance that this document is hardly used. The guidelines of the Global Reporting Initiative (GRI) – covering the same subject - seem to have attracted a much wider audience. Whilst being far from perfect the GRI are a much more appealing reference point for further development. ISO 14031 should simply be abandoned. As stated above, a standard on reporting and indicators may be envisaged, preferably at the European level.

#### **4. ISO 14040 and 14044 Life cycle assessment**

The publication of the first edition (1997-2000) of the ISO standard series 14040 was a big step forward as it went beyond any other standard or guideline available at that time. However, many years have passed and the standard was not adapted. The revision of the standard series resulting in a new edition published in 2006 was purely editorial. Many problems relating to the application of LCAs remain unsolved.

A common misunderstanding is that Life Cycle Assessment (LCA) is the instrument of choice to detect all environmental burdens associated with a product throughout its life time. ISO 14040 defines life cycle assessment as follows: “compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle”. Furthermore, the standard commits to the principle of “comprehensiveness” which is defined as follows: LCA considers all (!!!) attributes or aspects of natural environment, human health and resources. By considering all attributes and aspects within one study in a cross-media perspective, potential trade-offs can be identified and assessed”.

However, both claims are hardly in line with practice. Most studies are NOT cradle-to-grave studies and cover only part of the life cycle (cradle-to-gate studies, gate-to-gate studies and studies covering specific parts of the life cycle (e.g. waste management, components of a product)). Furthermore, also the claim of comprehensiveness is typically NOT fulfilled as most LCA studies use a handful of LCA indicators and, thereby, provide a very limited picture of the environmental burdens of a product or system. The concerns are the same as expressed above relating to ISO 14025. Many aspects are normally entirely ignored (e.g. noise, particles, risk assessment of direct exposure to chemicals, local effects, etc.). For effects such as toxicity and ecotoxicity no accepted indicators exist and it remains doubtful whether such indicators based on sound science will ever be available.

The drafters of ISO 14040 and 14044 seem to have been aware of the limitations of the LCA methodology. Interestingly, additional requirements apply in case of so called “comparative assertions”

(environmental claims regarding the superiority or equivalence of one product versus a competing product that performs the same function) disclosed to the public. Such studies “shall employ a sufficiently comprehensive set of category indicators”. However, it remains unclear what “sufficiently comprehensive” means. The standard itself does not define any indicator or establish minimum expectations in this respect, apart from some very general provisions (scientific and technical validity, environmental relevance).

In addition, a life cycle impact assessment (LCIA) “shall not provide the sole basis of comparative assertion intended to be disclosed to the public of overall environmental superiority or equivalence, as additional information will be necessary to overcome some of the inherent limitations in the LCIA. Value-choices, exclusion of spatial and temporal, threshold and dose-response information, relative approach, and the variation in precision among impact categories are examples of such limitations”. Again, it remains unclear which kind of “additional information” is required, which tools should be used and to which extent. It is obvious that all these limitations are equally relevant in case of LCA studies intended to support political decision-making the aim of which is to favour (overall) environmentally sound products.

There seems to be a discrepancy between the ability of the tool and how it is presented by its proponents (similar to EPDs). Several conclusions can be drawn from this: first, more honesty is required and the limitations of the instrument must be made much more transparent, in particular to (political) decision-makers. Second, the limitations of current LCA practice need to be overcome e.g. by specifying the necessary complementary instruments (already envisaged in 14044 for comparative assertions but without providing detail) resulting in an improved, integrated LCA tool to ensure a comprehensive assessment of all relevant human health and environmental aspects. Third, the selection of the relevant environmental criteria cannot be left to the LCA practitioner and must be defined in a democratic process where such studies form the basis for political decision-making. These aspects need to be addressed in a revision of the standard.

## **5. ISO 14063 Environmental communication — Guidelines and examples**

This is one of the most superfluous documents ISO TC 207 has ever produced which consists essentially of hot air and many well known management system standard phrases. Instead of providing substantive guidance the text consists mainly of trivialities such as listing the various types of stakeholders or information sources. One can read that websites “offer great potential to reach out to many people on many issues”, that labels or declarations “can inform customers about the environmental attributes of a product or service”, that letters are “quick and easy to produce”, and that advertising “reaches a large audience”, which is indeed breathtaking.

What information is provided and in which detail, is essentially left to the organisation. Reading the paper is just a waste of time. The document should be simply abandoned. A serious discussion on the need to develop a standard on reporting and indicators should be initiated at the European level as outlined above.

## 6. Conclusions

The ISO 14001 approach has fundamental flaws which render the instrument questionable. The absence of any performance related requirements, inadequate coverage of legal compliance, no reporting requirements and no list of minimum performance indicators make it an ideal greenwash tool. It remains questionable to which extent such changes can be accomplished within international standardisation. The development of a European standard dealing with indicators could be envisaged.

The ISO 14020 standard series needs a fundamental reform to incorporate important labels currently excluded, to address the shortcomings of the individual standards of the standard series and to go beyond the current separation of different types of eco-labels by combining elements of different schemes in order to achieve comprehensive and convincing environmental information systems.

ISO 14031 provides hardly any benefit and should be abandoned.

ISO 14040 and 14044 need to be revised to address some of the deficits. In particular regarding the transparency of the limitations of LCA, the comprehensiveness of the approach to cover indeed all relevant environmental and human health aspects throughout the life cycle, and the decision-making process on what to include in the study, as well as the lack of defined impact indicators.

ISO 14063 is of no use and should be abandoned.

END.