EUROPEAN COMMISSION
JOINT RESEARCH CENTRE
Institute for Prospective Technological Studies (Seville)
Sustainable Production and Consumption Unit

Pilot studies on sectoral reference documents on best environmental management practice – the Retail Trade sector

Minutes of the EMAS stakeholder workshop for the Retail Trade sector held at JRC/IPTS on 18 and 19 November 2010 in ES-Seville

Participants: See Annex 1.

Introduction

The Community Eco-Management and Audit Scheme (hereafter EMAS) was originally established in 1993 by Regulation (EC) No 1836/93. This voluntary scheme was originally restricted to companies from industrial sectors. EMAS was revised in 2001 by Regulation (EC) No 761/2001 of the European Parliament and of the Council of 19 March 2001 allowing participation by organisations from all economic sectors, which is currently in force. Now, a second revision of EMAS has been undertaken, called EMAS III. This new regulation foresees the development of sectoral reference documents on best environmental management practice (Article 46). The goal of the current pilot studies is to bring stakeholders together and to collect views and opinions on how to create the reference documents. These documents should be functional and helpful for the organisations concerned.

Opening of the workshop and Introduction to EMAS Sectoral Reference Documents

The chairman, Harald Schoenberger, opened the session and welcomed the assistants. After a brief explanation of the meeting procedure, including obtaining permission to audio-record proceeding, san introduction was given.

Presentation.: Sectoral reference document on best environmental management practice for the retail trade sector. (See Annex 2)

The EMAS III regulation framework, under which the document is being developed, was presented. Article 46 states that the European Commission will elaborate sectoral reference documents in which best environmental management practices, indicators and, where appropriate, benchmarks of excellence will be developed. The Retail Trade sector was identified as a relevant sector for the pilot studies on the EMAS reference document. The scope of the documents will be technical, in order to describe what companies can do in a given sector. The structure of the document and the description of the techniques were decided in the kickoff meeting of the working group (25th June 2009). Benchmarks of Excellence and Indicators were developed from the process level and were derived from the best performers and should be achievable by all companies. Quantitative data should support the proposed benchmarks and the document should back them up.

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Discussion. There were some questions about how to interpret the benchmarks and how they were derived. Doubts were clarified. Specially, it was stressed that they are widely applicable and reflect the 20-30% of best performers. Economics should also be considered in the description and in the benchmarking process.

Overview of the information exchange to develop draft document

Presentation: Information exchange process. (Annex 3)
A short presentation (3 slides) was given. The absence of information exchange from EMAS organisations, verifiers and accreditation bodies was remarked upon. The main information exchange was performed with retailers and other relevant stakeholders, as techniques providers, NGOs and universities and research institutes through their publications. The collaboration level of retailers varied from press releases to "nothing is confidential" cooperation and very detailed technical specifications. The feedback was positive from retailers, associations, NGOs and DG ENV, while some criticism came from one accreditation body and two member states. Some gaps have been already identified in the current document: legal aspects, waste, focus on SMEs.

Discussion
The group is concerned about the complexity of the document, as it is difficult to read in full. The structure should be improved to enable fast access to relevant information. Differentiation of sales concepts should be included in the description and well differentiated for benchmarks of excellence. Conclusion: the document layout will be structured in order to make it more user-friendly.

Presentation of comments on Chapter 1. (see Annex 4)

Comments from working group members regarding chapter 1 (sector overview) were presented anonymously in a presentation made by JLGM. It was emphasised that only approximately 20 retailers are EMAS registered, and these retailers do not provide evidence of best practice.

It was noted that retailers have important environmental public relations objectives that motivate best practice disclosure. It was clarified that retailer organisations and stores do not need to comply with the benchmarks in the reference document to become EMAS certified. The document is intended as a source of support (framework) for continuous improvement for the entire sector, not a checklist for EMAS verifiers. However, EMAS verifiers might expect retailers to report on relevant proposed indicators. There was agreement on this, and positive feedback about document contents.

There was a comment regarding the last paragraph of p.25 in document: return of used products to the retailer is mentioned, but is not universally regarded as best practice by the working group. There is different legislation on take back across different countries. This issue will be tackled in the waste section, and it was agreed to remove the phrase "to the retailer" in the aforementioned sentence.

Various legislation applies to retail environmental performance, but is always evolving. The document need not be exhaustive in its coverage of this, but should provide an overview of key legislation so it's clear where voluntary best practice measures 'begin'.

Discussion on chapter 2.1. Energy performance.

Presentation. JLGM presented an overview of energy performance in retail stores, focussing on indicators and benchmarks across nine techniques.

Techniques 1 to 3: Retrofitting building envelope, design premises for HVAC, and use of integrated concept for buildings

It was noted that most retail buildings are not owned by retailers, and that in some cases individual retailers are minor tenants within the overall building envelope. Store ownership is mentioned in the applicability section of the technique, but the focus on building performance is relevant because it is an important aspect of energy use (also across other sectors). EP offered to check a new clause inserted into Carrefour rental contracts in case it is relevant to building energy performance. It was suggested that building energy rating systems could be used to inform retail rental decisions, and that facility investors could be addressed by the reference document.

There was some discussion about whether energy demand indicators could differentiate between electricity and heat, and whether the benchmark energy use should be normalised against the air supply rate to enable identification of excess air input rate. Retailers have direct control over techniques within the building, but not necessarily the building envelope. However, it is difficult to isolate electricity used for heating from other uses (e.g. lighting), and primary energy demand is the most relevant performance measure for building performance. The influence of air exchange rate for building energy demand will be explicitly referred to in the text. It was clarified that this technique is also relevant for cooling energy demand.

It was noted that low energy standards differ across countries (e.g. Passivhaus, Minergie). Benchmarks in the document are based on the Swiss Minergie standard, but the document should not promote particular standards. The title of technique 3 will be changed to refer only to "integrated concepts".

Different sales formats may be associated with different energy use for Heating Ventilation and Air Conditioning (HVAC). For example, an electronics retailer with products switched on for display will require significant cooling.

Cost per MWh energy use avoided would be a useful indicator of the business case, but is highly dependent on individual cases. It will be mentioned in the text for the technique.

The reference to 15% energy for ventilation for Carrefour in Fig. 2.5 is incorrect – should be for laboratories. It was proposed that the baseline in Fig. 2.12 will vary during closing hours, and should be lower.

There is general agreement on the proposed benchmarks with a clearer definition of applicability, but these may be modified to reflect different sales concepts. This will be discussed through further contact with the working group.

Technique 4. Integration of refrigeration and HVAC

There was agreement on the indicators and benchmarks for this technique

Technique 5. Monitoring of stores

The main issues for discussion were the time require for full implementation of energy monitoring technologies across all stores, the number of processes that should be monitored, and whether distribution centres should also be included in this technique.

It was clarified that monitoring should be at store level for specific processes. Colruyt require energy monitoring hardware in all new equipment, but it will take time for this to become fully diffused across all stores. There is some discussion over the benchmark of excellence for 100% stores and all processes to be monitored. 100% monitoring is already implemented by some retailers, and is a valid target benchmark.

The number of relevant processes for monitoring depends on the store type and format. JLGM presents a background slide to elaborate on seven key energy consuming processes in stores. It may not be necessary to monitor lighting at a store level. Ultimately, the document does need to specify which processes are relevant for which store formats: the benchmark is that all relevant processes are monitored.

Distribution centres are important for energy use and will be referred to in the applicability section.

Training of staff is essential for monitoring, but this may not be so important at a store level if centralised monitoring becomes more widespread (where data from all stores processed at retailer headquarters). Colruyt are installing a centralised monitoring system that will be completed in a few years, but across the sector some barriers remain for fully centralised energy monitoring systems, in particular system and code incompatibilities across stores. It will be important for retailers to ensure that all new stores have compatible monitoring systems.

It was emphasised that whilst monitoring is essential for energy management, it is not in itself best practice: active benchmarking is required.

Technique 6. Efficient refrigeration

It was agreed that closed cabinets are best practice for low temperature (minus cooling), but there was debate about whether closed cabinets are best practice for medium temperature (plus cooling). Many retailers are still experimenting with the latter, and it was suggested that energy savings will not be significant in busy stores when doors are opened frequently by customers. There are also concerns over the impact on sales, although it was noted that in the longer term customers may associated closed cabinets with improved food quality (as is the case for low temperature cooling).

Colruyt have a cooling zone with flaps to reduce cool air loss through the entrance during the day, and a curtain at night. This is regarded as best practice from an energy perspective (e.g. for cash and carry or discount stores), but is not regarded as a commercially viable option for non-discount sales concepts. MV will provide data on energy use for cooling zone.

It was stated that marketing managers dislike the phrase "covered", and would prefer glass-doors a! Change name to "glass doors" or similar. PB suggests lower benchmark. UB agrees. MV: Can provide additional information on cooling zone (e.g. energy use). States that 100% is a relevant benchmark of excellence as a target.
It was agreed to amend benchmark to refer to use of cooling zone where appropriate, and 100% covering where this would lead to a calculated energy reduction of greater than 10%.

It was agreed that use of natural refrigerants, and energy consumption less than 3000 kWh/myr are valid benchmarks. MV and EP would like to check these figures.

Technique 7. Efficient lighting

It is proposed that the benchmark could be reduced from 18 W/m2 installed lighting capacity. 8-12 W/m2 ground lighting (from ceiling) is typical for good new supermarkets in Germany, but this excludes spot lighting, and 10 W/m2 is possible for DIY stores.

Lighting capacity depends on sales format. Some small fashion stores use up to 400 W/m2, and new stores fitted with 100% LED lighting still require 40-50 W/m2. Migros has negotiated the lighting energy use of specialist clothes stores within their buildings to 30 W/m2.

The benchmark of excellence for grocery stores was reduced to 12 W/m2, as a challenging target, and a tentative 30 W/m2 was proposed for small specialist stores. IPTS will look into potential for further differentiation of the benchmark according to store format, and will liaise with the working group on this. IPTS will also request the recent Eurocommerce publication on energy consumption.

Use of daylight was removed as an indicator of best practice, to reflect the problem of heat gains in warmer climates.

Technique 8: Secondary measures

There is a trend for retailers to outsource distribution and logistics to third party providers, but the energy section of the document deals with direct aspects of retailer performance. Therefore the benchmark of excellence was amended to require energy monitoring in 100% of distribution centres owned or exclusively in service to the retailer. Definition of boundaries of responsibility will be investigated further.

It is important that monitoring is used to drive improvement, and this requires assignment of responsibility to a dedicated person/s within the retailer. This was reflected in a new indicator to have a management system in place to drive continuous improvement.

There was some discussion about whether retail headquarters should be included in this technique, to lead by example.

Technique 9. Alternative energy sources

There was agreement that purchase of 'green' electricity is not a relevant indicator of environmental performance, but investment in new alternative energy generation is a relevant indicator. Colruyt is pursuing a strategy of becoming a net contributor of electricity to the

national grid. On this basis, a benchmark of a zero energy store was agreed, although this depends on the geographical location.

The percentage of energy demand generated by alternative sources, and the percentage alternative energy generation in excess of consumption are inserted as relevant indicators.

JLGM emphasises that this technique represents best practice only where it is implemented to provide residual energy demand after implementation of other measures.

Discussion on chapter 2.2. Supply chain.

Presentation. The approach of chapter 2.2 of the document was presented. Main points are:

- Integrate supply chain environmental performance improvement as a business objective
- Assess product supply chains and prioritise improvement actions
- Identify most effective control options (independent certification, supplier contracts)
- Drive widespread improvement by specifying minimum product standards
- Drive improvement by encouraging green consumption of exemplary eco products

A systematic procedure for core product improvement was shown.

Technique 1. Integrate supply chain sustainability into the retail business

The definition of supply chain should be refined to "product supply chains", to differentiate it from transport and logistics aspects discussed in the next section. The document is focused on main impacts, so product improvement is covered in this chapter. Some confidentiality issues arise in the identification and assessment of core products. Some participants requested that the document be modified to identify a list of core products that should be improved. However, this will vary according to retailer type, and the objective of the document is to outline how retailers decide which product groups to improve. The chapter is intended to explain how retailers can improve their supply chains, without proposing a list of core products to be assessed. Many studies and different LCA approaches already exist.

No substantial modification on indicators and benchmarks was made, but the responsibility of a high level business unit to drive improvement was emphasised.

Technique 2. Assess core product supply chains to identify priority products, processes and options for improvement

The assessment of products needs much time and is incompatible with the assessment period of new suppliers for some retailers. It was noted that LCA can be easily manipulated, although increasing experience in the field should allow manipulation to be identified more easily. Retailers may need help in the identification of hotspots. Literature review is recommended to easily identify them. Many studies are performed by retailer clusters or associations, so the importance of common approaches is also high. The role of suppliers is also essential and to be addressed in the indicators.

There was discussion over whether retailers should select priority product groups for improvement based on initial screening according to sales volume (i.e. core product groups), or initial screening according to environmental impact. The former approach may miss low volume but high environmental impact product groups. It was proposed to use sales value as a

definition of core product groups, which may reduce this problem (high impact products are often more expensive).

Conclusions:

- to include a new indicator: *percentage of suppliers which provide verifiable environmental performance data per product group*
- to include a reference to individual or joint approaches in the benchmark: implementation of systematic assessment (*independently or through consortia*) of core product supply chains

Technique 3. Identify chains of custody and control points for priority supply chains

It was pointed the need to be critical with labels, even if they are independent. The use of criteria coming from labels can be useful. The document should have an objective position. It was emphasised that ISO 14020 type I labels are the most comprehensive and reliable. The technique intends to describe the direction to take, as problems will be addressed with experience.

No changes were made to the Indicators and Benchmarks. Some points of the discussion were relevant for subsequent techniques.

Before the indicators and benchmarks section, a table with label examples was shown. A classification was proposed in terms of basic/improved/exemplary standards, which may be based on third parties certification or retailer declarations.

Discussion on labels (table on slide 23)
It was agreed to elaborate on the explanation of the classification of labels. As well, some important labels will be included, such as Rainforest Alliance and GOTS. PEFC should not be considered exemplary.

Some example criteria from labels should be given when enough information is available. It is important to address multicriteria labels and differentiate them from monocriteria labels. However, some labels that fall outside ISO Type I definition (e.g. FSC, MSC) may be regarded as exemplary where they target the most relevant environmental hotpsots.

The final table of labels will still be a compendium of examples more than a compendium of all existing labels.

Technique 4. Require core products to be independently certified to minimum environmental standards
The discussion was focused on the application of independent certification to core products, not for all products. Independent labels should be audited. For retailers, the availability of certified products can be a problem. For example, not all fish species are available with FSC certification.

For this technique, the relation with suppliers can be really important. Some participants pointed the need of addressing the responsibility of suppliers, for example with a certified EMS (EMAS, ISO 14001). No change on this will be included in this technique which is focused on product certification, but will be reflected in technique 5 on supplier improvement.

Indicators will not be changed. The second benchmark for "new" standards will be removed (unclear definition of new standard). Best retailers achieve 100% certification for core product groups. It was emphasised that this technique is assessed on a product group basis, and was agreed to include the benchmark as 100% certification for "at least two product groups".

The definition of "product groups" will be refined in the document.

Technique 5: Define and enforce minimum environmental standards for core product groups

Some confusion of T4 and T5 was detected. T5 has to do with retail intervention to achieve better performance. The products addressed in T4 and T5 can not be the same. A special concern of retailers is to know the most effective way to achieve this. Recommendations on that are given in the detailed technique description in the reference document.

Conclusions on indicators and benchmarks are the same as for tech. 4.

Technique 6: Define Require core products to be independently certified to exemplary environmental standards

For this technique, the discussion on benchmarks was really important. The sales share of official ecolabels should be checked by IPTS, especially for Nordic countries, and EC targets for the EU Flower should be considered. As well, 10% organic certification of food products was seen as ambitious but possible, whilst the organic cotton target was regarded as too high - the availability for this product would be really limited if retailers go for this standard. Although this is an important concern, the benchmark will be kept as a reference for excellence, to incentivize development of organic farming. Products coming from farms in transition should be considered as a good practice (in the technique description) but should not be included in the benchmark figure.

Technique 7. Work with suppliers to define and implement exemplary standards for core product groups

Same indicators and benchmarks as for technique 6. Some additional classifications (e.g. A+++ for energy products) may be considered as exemplary in Table 2.29 the technique description.

Technique 8. Strategically fund and participate in research to drive supply chain innovation

There was a general agreement on indicators and benchmarks for this section. A special mention to joint initiatives or consortia should be included in the text. As well, consultancy work can be considered best practice if it drives innovation and development.

Technique 9. Promote front-runner ecological products through comprehensive own-brand eco ranges

Conclusions from techniques 6 and 7 are applicable to this section. Some criticism is expected from retailers not working with own brand products.

Technique 10. Promote front-runner products through selective labelling

Some competitiveness problems are expected through the identification of best performers by retailers. As well, most of the labels in this technique address monocriteria aspects. This

technique should be removed as best practice, as multicriteria labels should be encouraged (e.g. ecolabeled products should be seen as frontrunner products).

It was concluded to remove this technique.

Discussion on chapter 2.3. Transports and Logistics

Technique 1. Monitor report and benchmark transport and logistics performance
It was agreed to remove product sourcing distances as an indicator as it could be perceived as contrary to free trade. There are some doubts about the ease of use of some indicators, such as $kgCO_2/m^3$ delivered, owing to different expressions within the sector (e.g. CO_2 per pallet delivered). Transport and logistics should be included in the supply chain policy. Here, the scope of the document can not extend to the whole chain, and the focus is on transport between first tier suppliers and distribution centers or stores. .

Technique 2. Integrate transport considerations into sourcing and packaging
The density of packaged products should be benchmarked, although it varies considerably across product groups. The consideration of density is included as benchmark: "Systematic implementation of density improvement of packaged products"

Technique 3. Shift transport modes
For some retailers, the benchmark "> 50 % overland transport by water/rail" is difficult to achieve as it may not be under direct control of the retailer, for example because of infrastructure limitations. However, some retailers are already achieving the proposed benchmarks, so the final benchmark will be reworded to " > 50 % overland transport by water/rail (where infrastructure allows it) between the first tier supplier to the distribution center".

Technique 4. Optimize the distribution network
The percentage of product supply handled by specialised companies should be considered as an indicator of this technique as dedicated transport and logistics companies are often more efficient than retailers and very relevant for SMEs, so "% of delivered products managed by a third party specialist logistics provider" is included as an indicator.

Technique 5. Route planning, telematics and driver training
Indicators and benchmarks were agreed. The concept of continuous training was included in the proposed benchmark, which now reads "100 % drivers continuously trained in efficient driving"

Technique 6. Vehicle design and modification
The benchmark of less than 30 l per 100 km for 44 tonne diesel trucks can vary according to the type (density) of products. Some figures can be provided from the participants. As well, night deliverance can be included as a good practice, although in some municipalities is forbidden (to be reflected in the applicability section). The emissions of CO_2 should be accounted in the environmental management system.

The benchmark for trucks compliance with EURO 4 or 5 should be changed to only EURO 5.

Discussion on chapter 2.4. Waste Management

Presentation. HS presented an overview of waste management techniques.

Technique 1. Return systems for PET and PE bottles and for used products

There was discussion over whether this aspect is the responsibility of municipalities rather than retailers. It is proposed that retailers should at least provide facilities, although it was noted that store space can be expensive. In addition, stores have hygiene considerations that may conflict with accepting certain waste materials. In the Netherlands, municipalities pay retailers to install collection systems for WEEE material. The WEEE forum is addressing some of these issues.

Legislation is a major driver of this technique, but differs across member states. For example, under the Green Dot initiative in Germany producers have financial responsibility for waste arising from their packaging. In Sweden there is a compulsory deposit system for drink and beverage packaging except those that has contained milk (due to hygiene reasons) or those that are concentrated and not ready to drink.

IPTS will develop this technique further.

Technique 2. Fermentation of food waste

Retailers want to control waste management and municipalities want organic waste to feed their biogas plants. There are strong economic incentives for organic waste collection now in many countries.

It was proposed to include the proportion of food waste in relation to sales as an important indicator and incentive to reduce food waste generation. This indicator may ultimately go into a new waste management (reduction) section.

It is proposed to use the value, rather than the weight, of waste. This may reflect upstream impacts of production better and is well known in Sweden.

PB will provide some Swedish waste data that could be used to derive benchmarks. IPTS will develop this technique further.

Discussion on chapter 2.5. Paper consumption

This technique will be further developed and sent for consultation.

Discussion on chapter 2.6. Rainwater collection.

The extension of the discussion on the other chapters didn't allow discussing the contents of this technique. This has to be developed with the Water Framework Directive in mind. Presentation is annexed as Annex 5.

Discussion on chapter 3. Emerging techniques

The extension of the discussion on the other chapters didn't allow discussing the contents of this chapter. Presentation is annexed as Annex 6. The content should be modified regarding to

zero energy buildings, as it can be considered a best practice since retailers are implementing this kind of buildings. The text to be included in the text is attached to the e-mail sent to the working group.

Discussion on the potential improvement of the information exchange process

The potential improvement of the information sharing between the members of the working group for the development of sectoral reference documents was not discussed during the meeting. Participants are encouraged to send any comment, suggestion or idea to improve the information exchange. Questions to the participants are shown in the presentation (Annex 7). After circulating draft minutes, two full answers were obtained. See them below:

Questions	Answers
Which are the easiest ways to exchange info?	1. Via mail first, with a definite deadline to get everybody's comments in time. 2. By email and then to discuss on it via working group
Which format do you prefer to provide info ? (e.g. do you prefer to have a first draft of a technique to complete or to correct?)	1. Yes, a first draft, and preferably as word documents, so we could comment in the text. 2. yes usually is easier for us
Do you consider site visits to be of high value?	1. IF You mean physically visits, they could be useful, but probably just as inspiration and thus it has to be combined with plenty of time for discussions. The many chapters, and the different content of them, makes it difficult to visit one single company, perhaps besides Migro or Coop in Switzerland. Anyhow it would involve many different specialists in the visited company, which would be very timeconsuming for both the hosts and for the WG, so I stick to that the main interest of visites should be inspiration. 2. yes!! notably to see the diversity of our activity but as well to stick with our business reality and constraints.
Should there be a platform to share info (also for comments)? – accessible only for WG members.	1. If the members will get information when something new is uploaded, and specific question on the new document, I do believe these platforms could be useful. 2. yes
Why did you provide info (e.g. to be mentioned as best performer or …)?	1. So far I have not seen any information that could not be shared, as the most is already reported publicly in Sustainabilty reports or

	similar. However, specific sales figures could be very sensitive among many retailers. 2. - to avoid regulation or else which "reinvent" what we already do - to share our experience, best practices but also our burdens, constraints...due to our activities - to obtain the best results thanks to the number of participants and the quality of outcome
Would you provide more info upon written agreement on confidentiality?	1. See above. 2. Yes

List of annexes

Annex 1. List of Participants
Annex 2. Sectoral reference document on best environmental management practice for the retail trade sector (presentation)
Annex 3. Info exchange process
Annex 4. General comments received before the workshop
Annex 5. Conclusions on indicators and benchmarks
Annex 6. Emerging techniques presentation
Annex 7. Potential improvement of the information exchange process
Annex 8. Agenda of the Workshop

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Annex 1: list of participants

First Name	Last Name	Organisation	City	Country
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Olaf	Dechow	Otto (GmbH & Co KG)	Hamburg	Germany
Paula	Gomes	European Commission / DG ENV	Brussels	Belgium
Gilles	Vincent	European Commission / DG ENV	Brussels	Belgium
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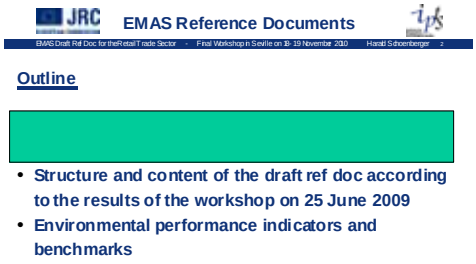
Annex 2. Sectoral reference document on best environmental management practice for the retail trade sector (presentation)

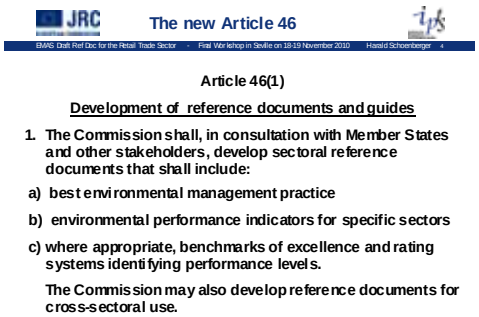
Slide 1

Slide 2



Slide 3

Slide 4



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Slide 5

The new Article 46

Article 46(3)

List of sectors

The Commission shall establish, by the end of 2010 a working plan setting out an indicative list of sectors, which will be considered priorities for the adoption of sectoral and cross-sectoral reference documents

Slide 6

Article 46(3)

Already identified priority sectors

- **Retail trade (12/2010)**
- **Public Administration (7/2012)**
- **Construction (12/2011)**
- **Tourism (12/2011)**

Slide 7

EMAS Reference Documents

Outline

- **Development of the EMAS regulation (here: EMAS Reference Documents)**
- **Environmental performance indicators and benchmarks**

Slide 8

"Definition" of EMAS Reference Documents

EMAS regulation:

Recital 19

Reference documents including best environmental practice and environmental performance indicators for specific sectors should be developed through information exchange and collaboration between Member States. Those documents should help organisations better focus on the most important environmental aspects in a given sector

➔ Conclusion: EMAS Sectoral Reference Documents shall be very technical documents describing in detail what can be done to improve the environmental performance following the IPPC BREF approach

Slide 9

Workshops on 25 June 2009 –
➔ answers on important questions

- **Which is the most appropriate structure for the document?**
- **Which are the most relevant contents?**
- **Which is the most appropriate structure for the presentation of the techniques?**
- **How to derive meaningful indicators?**
- **How to derive benchmarks and how to use them?**
- **How to organise the procedure for developing sectoral reference documents?**

Slide 10

EXECUTIVE SUMMARY

PREFACE

SCOPE

GENERAL INFORMATION

AVAILABLE TECHNIQUES REFLECTING BEST MAN. PRACTICE

EMERGING TECHNIQUES/APPROACHES

CONCLUSIONS

➔ agreement

Slide 11

PREFACE

1. Status of this document
2. Relevant legal background
3. Objective of this document
4. Information sources
5. How to understand and use this document
6. Environmental indicators and benchmarks

➔ agreement

➔ Common preface should be used for all documents for consistency purpose

Slide 12

GENERAL INFORMATION

- Economical data (annual turnover, employment etc.)
- Environmental issues
- Current environmental and sustainability policies and practices
- The sector concerned in EMAS

Conclusion: no need to provide extensive statistical information, since it is quickly outdated

Slide 13

- Description
- Achieved environmental benefit
- Appropriate environmental indicator
- Cross-media effects
- Operational data
- Applicability
- Economics
- Driving force for implementation
- Reference organizations
- Reference literature

➔ agreement

➔ The heart of the document

➔ requires detailed technical information

Slide 14

EMAS Reference Documents

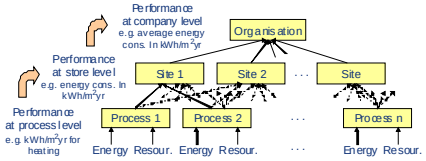
Outline

- Development of the EMAS regulation (here: EMAS Reference Documents)
- Structure and content of the draft ref doc according to the results of the workshop on 25 June 2009

Slide 15

Indicators and Benchmarks of Excellence

Bottom to top approach: indicators and benchmarks at process level



Slide 16

Many possibilities to derive benchmarks such as:

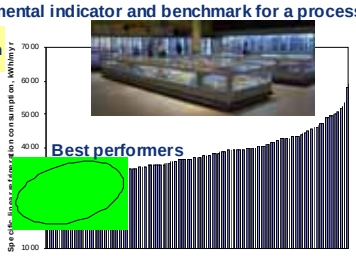
- **The best**
- **Top 10 or Top 10%**
- **Current average in sector**
- **Potential average in sector using "best practice"**
- **…… etc.**

But then what do we mean by "best practice"?
Achievable by a few / many / most / all ?
Taking account of economics of sector ?

Slide 17

Environmental indicator and benchmark for a process

Example: refrigeration of food



Slide 18

Conclusions on environmental performance indicators and benchmarks of excellence

Conclusions on benchmarks

- **usually need quantitative data**
- **should be backed-up in the document**

Approach of the draft reference document:

➔ comprehensive document containing clear conclusions on environmental performance indicators and benchmarks of excellence backed-up in the document

Slide 19

Conclusions on environmental performance indicators and benchmarks of excellence

Conclusions are drawn with the working group based on the data and techniques presented in the draft reference document

Slide 20

Contact details

European Commission
Joint Research Centre
Institute for Prospective Technological Studies
Sustainable Production and Consumption Unit
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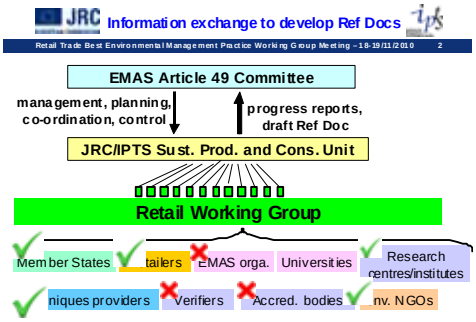
Annex 3. Info exchange process

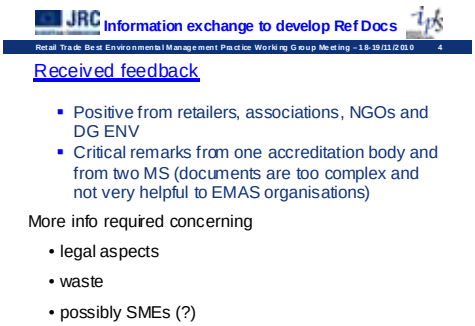
Slide 1

Slide 2



Slide 3

Slide 4



Annex 4. General comments received before the workshop

Slide 1

Slide 2

1. General comments on the scope of the document
2. Specific comments regarding chapter 2.1. (ENERGY)
3. Specific comments regarding chapter 2.2. (SUPPLY CHAIN)
4. Specific comments regarding chapter 2.3. (LOGISTICS)
5. Specific comments regarding other chapters

Slide 3

GENERAL COMMENTS

Slide 4

we consider the document globally very good, so we would like to congratulate you and your team for your great efforts. This document will be very important not only to the EMAS community but also to the sector as a whole

Slide 5

***the complexity of these documents will not help to encourage companies of the retail sector to take part in EMAS**. The present document is much too long and complicated for all users. Many big global players like IKEA are mentioned in these draft document, why should they then go for EMAS if they are all ready seen as best practice example by the EC?'*

Slide 6

*there should be at least an **instruction for retail companies how to use the core indicators according to the new EMAS regulation** and a description which core indicators are relevant and useful in this sector. I have understood that the primarily intention of the sector specific documents was to help companies of a certain sector with the implementation of EMAS.*

Slide 7

*the idea of the development of reference documents according to Article 46 is to help EMAS implementation with respect to performance on the organization side and to give guidance to verifiers how these performance can be assessed (see Article 18). So for me **all reference documents should have a strict orientation to EMAS** in particular with respect to Annex IV and should be limited to this in order to have short documents which verifiers can work with in practice.*

Slide 8

***Legal compliance** - EMAS being a voluntary tool, implying a strict compliance with legislation , we consider that **it is essential to have a stronger reference to that issue** , in particular when we have EU legislation that applies to specific significant environmental aspects.*

Slide 9

P.27 ***Not sure that the IPPC regulation inhibits retailers from acting for environmental improvement in their supply chains**. There is always scope for performance above the legal minimum, also retailers have inspections teams that can ensure compliance with legal minima and they have interest in doing this and can analyse where the risks may lie in the chain.*

Slide 10

P27. *Agree that there is considerable scope for retailers to take more into account in their purchasing and that some retailers in some sectors are already doing this. **One challenge is to find the business case for buyers to integrate environmental and social considerations into their purchasing decisions** and for their companies to recognise their achievements in doing this alongside the other objectives of purchasers.*

Slide 11

*This is an excellent source document for the specialist environmental management teams employed by the largest retailers. However **it does not offer much for the SME retail sector**. As support for SMEs is part of the Commission's general mission here, we would be interested to know what plans there are to make the key pieces of good practice advice accessible to SMEs.*

Slide 12

*some parts are very elaborated at a high detailed level (cfr hvac)- only useful for the experts; sometimes it **would be useful to know the different steps to take, a kind of framework** (like in T&L)*

Slide 13

GENERAL COMMENTS. Conclusions.

Good and constructive feedback from:

- retailers
- EC/DG-ENV
- Associations
- NGO

Critical feedback from:

- Accreditation Bodies
- Verification Bodies
- Two Member States

} Complexity of the document; Scope NOT restricted to EMAS

Slide 14

GENERAL COMMENTS. Conclusions.

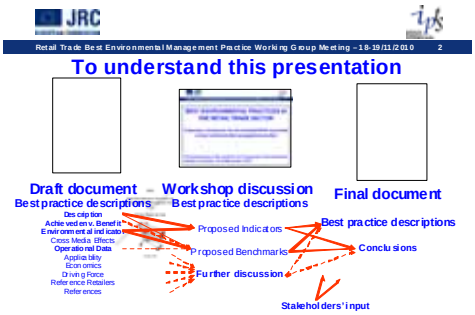
Remaining work:

- More info on Waste
- Legislation
- Special considerations to comments
- Specific aspects on techniques description

Annex 5. Conclusions on indicators and benchmarks

Slide 1

Slide 2



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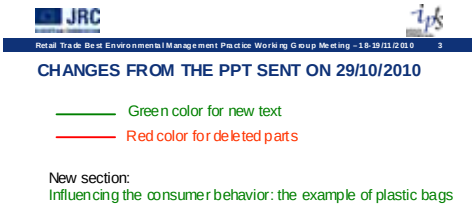

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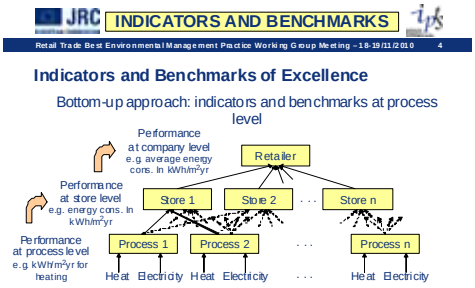


Slide 5

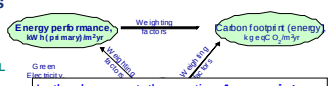
IMPROVING ENERGY PERFORMANCE TECHNIQUES

Ref. Doc. 2.1: pp. 31-133

Slide 6

INDICATORS AND BENCHMARKS

Indicators



ENVIRONMENTAL PERFORMANCE INDICATORS

PROCESS PERFORMANCE PARAMETERS

In the document, the section **Appropriate Environmental Indicator for each energy technique** only describes energy performance indicators.

For the discussion, the **use** of techniques and best practices concepts was **also considered as a "Proposed Indicator". Now it is deleted.**

Slide 7

ENERGY EFFICIENCY: Technique 1

Description: Retrofitting the building envelope for optimal energy performance

Proposed Indicators

- Store energy consumption per m² and year
- Store primary energy consumption per m² and year
- *U-value of building envelope elements*

Proposed Benchmark of Excellence (Techniques 1 to 3)

- Primary energy demand of HVAC less than 40 kWh/m²yr for new buildings and less than 55 kWh/m²yr for existing buildings (harmonized basis?)
- *U-values beyond national regulations?*
- *Certification of demanding standards (e.g. Minergie, PassivHaus, Breeam…)*

Ref. Doc. 2.1.6.1: pp. 42-50

Slide 8

ENERGY EFFICIENCY: Technique 2

Description: Design premises for new and existing Heating, Ventilation and Air Conditioning systems

Proposed Indicators

- *Integrated specific measures*
- *Use of on-demand controlled ventilation*
- Store energy consumption per m² and year
- Store primary energy consumption per m² and year

Proposed Benchmark of Excellence (Techniques 1 to 3)

- Primary energy demand of HVAC less than 40 kWh/m²yr for new buildings and less than 55 kWh/m²yr for existing buildings (harmonized basis?)
- U-values beyond national regulations?
- Certification of demanding standards (e.g. Minergie, PassivHaus, Breeam…)

Ref. Doc. 2.1.6.2: pp. 51-63

Slide 9

ENERGY EFFICIENCY: Technique 3

Description: Use of the passive house integrative concepts for buildings

Proposed Indicators

- *Integration of Passive House concepts (globally or partially)*
- Store energy consumption per m² and year
- Store primary energy consumption per m² and year

Proposed Benchmark of Excellence (Techniques 1 to 3)

- Primary energy demand of HVAC less than 40 kWh/m²yr for new buildings and less than 55 kWh/m²yr for existing buildings (harmonized basis?)
- U-values beyond national regulations?
- Certification of demanding standards (e.g. Minergie, PassivHaus, Breeam…)

Ref. Doc. 2.1.6.3: pp. 64-68

Slide 10

ENERGY EFFICIENCY: Technique 4

Description: Integration of refrigeration and HVAC

Proposed Indicators

- *Use of a heat recovery system*
- HVAC energy savings per m² sales area and year
- *Coefficient of Performance?*
- *Overall efficiency?*
- Produced heat per m² sales area and year?

Proposed Benchmark of Excellence?

- For food retailers: heat consumption of 0 kWh/m²yr (absence of heating system) (in combination with techniques 1 to 3)

Ref. Doc. 2.1.6.4: pp. 69-82

Slide 11

ENERGY EFFICIENCY: Technique 5

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 11

Description: Monitoring of stores

Proposed Indicators

- Implementation of a monitoring system y/n
- *Number*, percentage of controlled stores
- *Availability of data, standardized methodology* for the assessment
- Number of controlled *indicators* processes

Proposed Benchmark of Excellence?

- 100% of stores monitored and all process
- Benchmarking mechanisms

Ref. Doc. 2.1.6.5: pp. 83-96

Slide 12

ENERGY EFFICIENCY: Technique 6

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 12

Description: Efficient refrigeration

Proposed Indicators

- Specific energy consumption per m^2 sales area and year
- Specific energy consumption per m of display case and year
- *Covering of chest freezers*
- *Installation of specific measures*
- Leakage control (% of refrigerant) and GHG emissions (TEWI)
- *Use of cleaner refrigerants* % stores with nat. refrigerants

Proposed Benchmark of Excellence?

- 100% covered LT cabinets
- Use of cooling zone (e.g. cash and carry) or 100% covering of MT refrigeration where this can lead to an energy saving of more than 10%
- Use of natural refrigerants
- E. consumption of refrigeration

Ref. Doc. 2.1.6.6: pp. 97-115

Slide 13

ENERGY EFFICIENCY: Technique 7

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 13

Description: Efficient lighting

Proposed Indicators

- Specific energy consumption per m^2 sales area and year
- Power consumed per m^2
- *Lighting strategy (harmonized?)*
- *Use of daylight*
- *Use of optimized lighting devices (T5, LED, ...)*

Proposed Benchmark of Excellence?

- Power consumption less than 12 W/m^2 for supermarkets and 30 (?) W/m^2 for specialist stores
- *Use of a daylight controlled system*

Ref. Doc. 2.1.6.7: pp. 115-124

Slide 14

ENERGY EFFICIENCY: Technique 8

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 14

Description: Secondary measures

Proposed Indicators

- *Monitoring of distribution centers*
- *Efficient appliances*
- *Enhanced training and communication system*
- *Energy audit plans (integrated into environmental audits?)*
- Specific energy consumption per m2 sales area and year
- Power consumed per m2
- Management system in place to drive continuous improvement

Proposed Benchmark of Excellence?

100% of distribution centers exclusively in service to the retailer are monitored

Ref. Doc. 2.1.6.8: pp. 125-130

Slide 15

ENERGY EFFICIENCY: Technique 9

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 15

Description: Alternative Energy Sources

Proposed Indicators

- *Use of RES (on-site, purchased). Where applicable, installation of solar thermal collectors. Where applicable, use of Combined Heat and Power*
- Specific energy generation per m^2 of sales area
- GHG emissions avoidance (Life cycle estimation preferred), kg CO2 e/m2yr
- percentage of energy from alternative generation
- percentage of alternative energy generation in excess of consumption

•Proposed Benchmark of Excellence?

Net zero energy building (store or distribution centre) where local conditions allow the production of renewable energy onsite, or investment in equivalent renewable energy generation at other locations.

Ref. Doc. 2.1.6.9: pp. 131-133

Slide 16

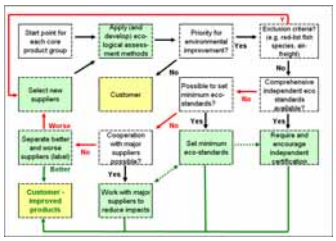
GREENING THE SUPPLY CHAIN TECHNIQUES

Ref. Doc. 2.2: pp. 134-213

Slide 17

1. Integrate supply chain environmental performance improvement as a business objective
2. Assess product supply chains and prioritise improvement actions
3. Identify most effective control options (independent certification, supplier contracts)
4. Drive widespread improvement by specifying minimum product standards
5. Drive improvement by encouraging green consumption of exemplary eco products

Slide 18



Systematic product improvement

Slide 19

Description: Integrate supply chain sustainability into the retail business (prerequisite)

Proposed Indicators

- public reporting of quantitative supply chain targets
- high-level business unit that integrates supply chain sustainability issues into business operations and responsible for improving sustainability (e.g. M&S 'How we do business committee')
- core supply chain sustainability indicators (techniques 4 to 7)

Proposed Benchmark of Excellence?

- existence of a high level business unit responsible for improving supply chain sustainability
- core supply chain sustainability indicators (techniques 4 to 7)

Ref. Doc. 2.2.6.1: pp. 160-164

Slide 20

Description: Assess core product supply chains to identify priority products, processes and options for improvement (prerequisite)

Proposed Indicators

For product performance:

- LCA indicators (e.g. product carbon and water footprints, etc)
- 'hot spot' impact identified by independent organisations

For retailer performance:

- number of core supply chains assessed (few data)?
- core supply chain sustainability indicators (techniques 4 to 7)
- % of suppliers which provide verifiable environmental performance data per product group.

Proposed Benchmark of Excellence?

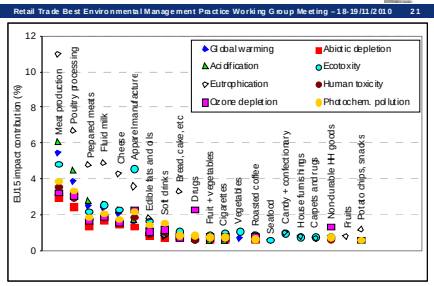
- implementation of systematic assessment (independently or through consortia) of core product supply chains

Ref. Doc. 2.2.6.2: pp. 165-170

Slide 21

SUPPLY CHAIN: Technique 2

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 21



Slide 22

SUPPLY CHAIN: Technique 3

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 22

Description: Identify chains of custody and control points for priority supply chains (prerequisite)

Proposed Indicators

- number of core product groups improved because of retailer requirements and intervention (techniques 5 and 7)
- number of core product groups improved through independent certification (outsourced control) (techniques 4 and 6)

Proposed Benchmark of Excellence

See core supply chain indicators

Ref. Doc. 2.2.6.3: pp.171-176

Slide 23

Product standards (core indicators)

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 23

	Basic	Improved	Exemplary
Independent standards	GLOBALG.A.P.	Better Cotton Initiative	EU Ecolabels (Blue Angel, EU Flower, Nordic Swan)
	BSR/WW: BSR Wastewater Quality Guidelines	Better Sugarcane Initiative	FSC: Forest Stewardship Council
	Fair Trade	4C ASSOCIATION	MSC: Marine Stewardship Council
	Greenpeace red-list fish (deselection)	RSPO	Organic (Bio Bud, EU, KRAV, Soil Association)
		RTRS	PEFC: Programme for the Endorsement of Forestry Certification schemes
		BSR	
Retailer standards	AFA: Air-freight avoidance	M&S SAP: Sustainable Agriculture Programme	Coop Switzerland
	CoC: Codes of Conduct	Sainsbury's DDG: Dairy Development Group	IKEA Wood Sourcing Guidelines
	CR: Chemical residue limits / chemical use restrictions		Migros CO_2 Champions
	Local sourcing		Migros Terra Suisse
	M&S AD: Avoid Deforestation		
	RFA: 'Red list' fish species avoidance		

Ref. Doc. 2.2.5.1: p.141

Slide 24

SUPPLY CHAIN: Technique 4

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 24

Description: Require core products to be independently certified to minimum environmental standards (core technique)

Proposed Indicators

- the percentage of private-label products sold, expressed in relation to total sales volume within the relevant product group, certified according to independent environmental standards
- the scope and stringency of those independent standards, as broadly indicated by categorization according into 'basic' and 'improved' standards

Proposed Benchmark of Excellence?

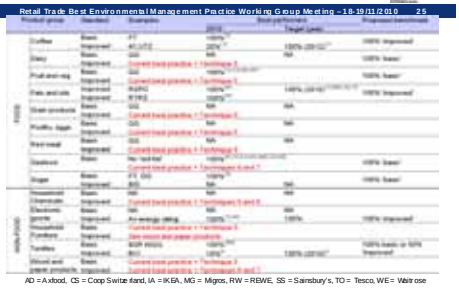
- 100 % certification for core priority product groups ('basic' and 'improved)
- 50 % certification where standard is new (e.g. BCI)?
- for at least two product groups (techniques 4 and/or 5)?

Ref. Doc. 2.2.6.4: pp.177-185

Slide 25

T4 Frontrunners

Retail Trade Best Environmental Management Practice Working Group Meeting – 18-19/11/2010 25



AD = Axfood, CS = Coop Switzerland, IA = IKEA, MG = Migros, RW = REWE, SS = Sainsbury's, TO = Tesco, WE = Waitrose

Slide 26

SUPPLY CHAIN: Technique 5

Description: Define and enforce minimum environmental standards for core product groups (core technique)

Proposed Indicators

- the percentage of private-label products sold, expressed in relation to total sales volume within the relevant product group, that comply with retailer-defined environmental standards, or that originate from supply chains where retailers are working with all major suppliers to improve environmental performance
- the scope and stringency of those retailer-defined standards, as broadly indicated by categorization according to 'basic' and 'improved' standards

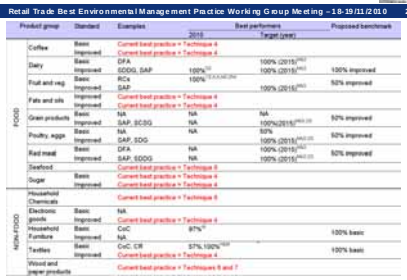
Proposed Benchmark of Excellence?

- 100 % compliance for core priority product groups ('basic' and 'improved')
- 50 % compliance where standard is new (e.g. M&S SAP)?
- for at least two product groups (techniques 4 and/or 5)?

Ref. Doc. 2.2.6.5: pp.186-194

Slide 27

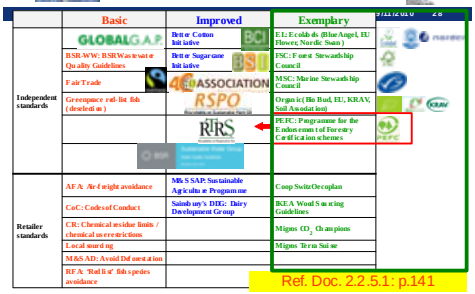
T5 Frontrunners



CS= Coop Switzerland , IA= IKEA, MG = Migros, RW = REWE, SS= Sainsbury's

Slide 28

Product standards (core indicators)



Ref. Doc. 2.2.5.1: p.141

Slide 29

SUPPLY CHAIN: Technique 6

Description: Require core products to be independently certified to exemplary environmental standards (core technique)

Proposed Indicators

- the percentage of private-label products sold, expressed in relation to total sales volume within the relevant product group, that are certified according to exemplary environmental standards

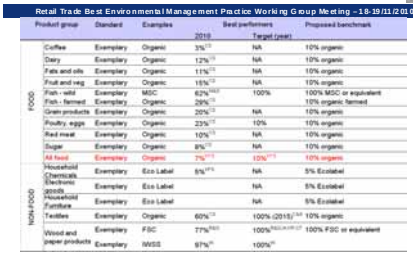
Proposed Benchmarks of Excellence

- 5 %?? of sales for core priority product groups are official ecolabel certified
- 10 % (sales value) organic certification for food product groups
- 50 % (sales value) organic certification for cotton
- for at least two product groups (techniques 6 and/or 7)?

Ref. Doc. 2.2.6.6: pp.195-200

Slide 30

T 6 + T 7 Frontrunners



CS= Coop Switzerland , IA = IKEA, IWSS = IKEA Wood Sourcing Standard, KFS = Kooperativa Förbundet Sweden (Coop Sweden), KR = Kingfisher, OT = Otto

Slide 31

Description: Work with suppliers to define and implement exemplary standards for core product groups (core technique)

Proposed Indicators

- the percentage of private-label products sold, expressed in relation to total sales volume within the relevant product group, that comply with exemplary environmental standards
- Has the retailer defined, or intervened in supply chain to drive, exemplary standards?

Proposed Benchmarks of Excellence

- **5 % ??** of sales for core priority product groups are official ecolabel certified
- 10 % organic certification for food product groups
- 50 % organic certification for cotton
- for at least two product groups (techniques 6 and/or 7)?

Ref. Doc. 2.2.6.7: pp. 201-205

Slide 32

Description: Strategically fund and participate in research to drive supply chain innovation

Proposed Indicators

- expenditure on sustainable supply chain research (expressed in relation to turnover)
- research must be targeted at innovative, scalable and high-potential improvement options
- specific environmental improvements attributable to implementation of research outputs
- indicators for techniques 5 and 7

Proposed Benchmarks of Excellence

- participation in supply chain innovation research
- see benchmarks for technique 5 and 7

Ref. Doc. 2.2.6.8: pp. 206-208

Slide 33

Description: Promote front-runner ecological products through comprehensive own-brand eco ranges

Proposed Indicators

- existence of (a) comprehensive own-brand eco-range(s)
- percentage of exemplary products sold (techniques 6 and 7)

Proposed Benchmarks of Excellence

- 5 %?? of sales for core priority product groups are ecolabel certified
- 10 % organic certification for food product groups
- 50 % organic certification for cotton

Ref. Doc. 2.2.6.9: pp. 209-213

Slide 34

Description: Promote front-runner products through selective labelling

Proposed Indicators

For product performance:

- LCA indicators as per technique 2 (independently verified)
- a clear and consistent label that identifies front-runner performance for at least one important environmental aspect

For retailer performance:

- percentage of product groups where front-runners are labelled
- percentage of sales within product group represented by front-runners (as per techniques 6 and 7)

Proposed Benchmarks of Excellence

- creation of new selective label to indicate better front-runner products to customers (where gap has been identified)

Ref. Doc. 2.2.6.10: pp. 214-216

Slide 35

TRANSPORT AND LOGISTICS TECHNIQUES

Ref. Doc. 2.3: pp. 214-256

Slide 36

TRANS & LOG: Technique 1

Description: Monitor, report and benchmark transport and logistics performance

Proposed Indicators

- product sourcing distances
- percentage transport by different modes
- truck load factor (% weight/volume capacity)
- kg CO_2 eq. per tkm
- kg CO_2 eq. per tonne or per m^3 delivered

Proposed Benchmarks of Excellence

- monitoring and reporting all the above indicators
- monitoring T&L operations back to suppliers of finished products (including third party transporters)

Ref. Doc. 2.3.4.1: pp. 224-231

Slide 37

TRANS & LOG: Technique 2

Description: Integrate transport considerations into sourcing and packaging

Proposed Indicators

- (product sourcing distance)
- (density of packaged products: t/m^3)
- contribution of transport to product lifecycle impacts (see section 2.2.6.2 on product assessment and Case study 2.12)
- number of product groups where sourcing or packaging has been modified specifically to reduce T&L and lifecycle impact

Ref. Doc. pp. 162-167; 212-213

Proposed Benchmarks of Excellence

- **Systematic implementation of density improvement of packaged products**

Ref. Doc. 2.3.4.2: pp. 232-234

Slide 38

TRANS & LOG: Technique 3

Description: Shift transport mode

Proposed Indicators

- total air emissions per tkm (adjusted for high-altitude transport)
- percentage of transport tkm by different modes

Proposed Benchmarks of Excellence

- > 95 % overseas transport by ship
- > 50 % overland transport by water/rail (where infrastructure allows it) between the first tier supplier to the distr. center

Ref. Doc. 2.3.4.3: pp. 235-241

Slide 39

TRANS & LOG: Technique 4

Description: Optimize the distribution network

Proposed Indicators

- percentage transport by different modes
- average percentage load efficiency (volume or mass capacity)
- average percentage empty running (truck km)
- implementation of cluster supplier networks or consolidation points
- percentage reduction in primary energy use through implementation of relevant techniques
- % of delivered products managed by a third party specialist logistics provider

Proposed Benchmarks of Excellence

- transport mode benchmarks of excellence (technique 3)
- systematic implementation of cluster supplier networks. consolidation points...

Ref. Doc. 2.3.4.3: pp. 242-245

Slide 40

TRANS & LOG: Technique 5

Description: Route planning, telematics and driver training

Proposed Indicators

- transport volume, gross tkm (including vehicle mass to reflect load efficiency)
- average percentage load efficiency empty running (percentage of total truck km)
- percentage of drivers trained in efficient driving
- percentage reduction in primary energy use through implementation of relevant techniques (back-hauling waste, coordination with suppliers, telematics, driver training and incentive schemes)

Proposed Benchmarks of Excellence

- 100 % drivers continuously trained in efficient driving

Ref. Doc. 2.3.4.3: pp. 246-250

Slide 41

Description: Vehicle design and modifcation

Proposed Indicators

- percentage of EURO 5 compliant trucks
- percentage of natural-/bio- gas trucks
- l/100 km
- kg CO_2 eq. per vkm (or tkm)
- percentage truck trailers and loading equipment PIEK compliant

Proposed Benchmarks of Excellence

- 100 % trucks EURO 5 compliant
- < 30 l/100 km
- 100 % PIEK compliant truck trailers and loading equipment

Ref. Doc. 2.3.4.3: pp. 251-256

Slide 42

WASTE MANAGEMENT TECHNIQUES

Ref. Doc. 2.4: pp. 257-264

Slide 43

Description: Return systems for PET and PE bottles and for used products

Proposed Indicators

- recycling rate expressed as a percentage of sales for various waste categories (e.g. PET)

Proposed Benchmarks of Excellence

- 80 % recycling rate (without deposit)
- 95 % recycling rate (with deposit)

Ref. Doc. 2.4.1: pp. 257-261

Slide 44

Description: Fermentation of food waste

Proposed Indicators

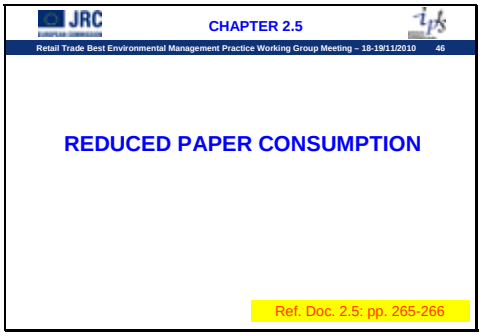
- percentage of food waste disposed of in biogas plants
- percentage food waste sent to landfill or incineration
- proportion of food waste in relation to sales

Proposed Benchmarks of Excellence

- zero food waste sent to landfill or incineration

Ref. Doc. 2.4.2: pp. 262-264

Slide 46



Slide 47

Description: Reduced consumption and use of more environment friendly paper for commercial publications

Proposed Indicators

- percentage of paper used that is certified
- grammage of paper used
- percentage of coated paper
- percentage of printing shops certified EMAS or ISO 14001

Proposed Benchmarks of Excellence

- 100 % certified/recycled paper
- less than 49 gr/m^2
- less than 10 % coated paper
- 100 % print shops EMAS/ISO 14001 certified

Ref. Doc. 2.5: pp. 265-266

Slide 48

RAINWATER COLLECTION AND REUSE

Ref. Doc. 2.6: pp. 267-270

Slide 49

Description: Rainwater collection and reuse to the ground at retail supermarket from roofs parking areas

Proposed Indicators

- percentage of store roof and parking area from which rainwater collected
- Percentage of stores with rainwater use systems

Proposed Benchmarks of Excellence

None

Ref. Doc. 2.6: pp. 267-270

Annex 6. Emerging techniques presentation

Slide 1

Slide 2

1. **Emerging techniques: concept and scope**
2. **Emerging techniques to improve the energy performance**
3. **Emerging Techniques to green the supply chain**
4. **Comments and suggestions**

Slide 3

'emerging techniques' is understood according to the draft **Industrial Emissions Directive**. There, the definition of emerging technique is:

"*a novel technique for an industrial activity that, **if commercially developed**, could provide either a **higher general level of protection** of the environment or at least the **same level of protection** of the environment **and higher cost savings** than existing best available techniques*".

Slide 4

Limitations of the definition for retailers:

- **boundary** between best management practice and emerging techniques is sometimes **not readily identifiable**
- many **operations** in the retail trade sector are **influenced by** important but difficult to quantify **image and reputational aspects**
- **public prioritization of environmental issues**
- techniques considered as **'emerging' from a short-term** business perspective **may be** regarded as **best available techniques from a long-term** business perspective

Slide 5

Building aspects:

Zero Energy and Plus Energy Buildings
Compensates energy consumption with renewable sources, energy efficiency and demand minimisation

- 'net' concept: connected to grid as source or sink
- 'autonomous' concept: not connected to grid

→Challenging for food retailers!

Slide 6

ENERGY IMPROVEMENT

Building aspects:

Trigeneration

Effective utilization of CHP → Heating, Electricity

+

Thermally driven refrigeration process (absortion) with excess heat

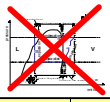
- Already implemented for large food processing plants
- At concept level for supermarkets.

Slide 7

ENERGY IMPROVEMENT

Refrigeration

Beyond the vapor-compression cycle



Process	Benefit	Examples	Dev. Phase
Absortion/ adsorption technology	Pressure changes, recover of waste heat	Air conditioning (commercial)	R&D/ Demo
Air compression cycle	Open cycle, direct contact	Large plants	R&D for stores
Thermoelectric	Lower costs	Small fridges	R&D for stores
Thermoacoustic	Pressure changes, temperature scope	Ben and Jerry freezer (prototype)	R&D/Pilot

Slide 8

SUPPLY CHAIN

Emerging standards that retailers could require compliance with for various product groups…

Standard	Products	Benefit	Dev. Phase
Better Sugarcane Initiative	Sugar	Comprehensive standard based on new environmental performance benchmarks for sugar cane production	Standard awaiting EU recognition
Aquaculture Stewardship Council	Farmed fish	New indicators to measure env. performance of aquaculture	Some indicators developed, standard under development
Alliance for Water Stewardship	Various (e.g. flowers)	New guidelines and indicators to measure water use performance in the context of cumulative local demand and availability	Early development stages

Slide 9

SUPPLY CHAIN

Supplier data exchange platforms, for retailers to obtain basic environmental performance data from suppliers

Example	Dev. Phase
Sedex supplier social data exchange platform is being extended with an environmental module	Unclear
Carrefour developing data exchange system to evaluate environmental performance of suppliers	50 % of suppliers are voluntarily providing environmental information
US Sustainability Consortium is pursuing a similar supplier benchmarking system to Carrefour	Early development stages

Slide 10

SUPPLY CHAIN

Encouraging sustainable consumption patterns

- **How to go beyond selection within product groups (i.e. existing labelling)?**
- **Generate awareness about impacts associated with particular groups**
- **Change consumption patterns (e.g. less meat)**
- **Retailers can play a role (e.g. identification of low and high impact groups), but wider education and measures required…**
- **Concept behind PCF, but requires more complete environmental scope and simple communication**

Annex 7. Potential improvement of the information exchange process

Slide 1

Slide 2

How to improve the information exchange? - 1

- Which are the easiest ways to exchange info?
- Which format do you prefer to provide info ? (e.g. do you prefer to have a first draft of a technique to complete or to correct)
- Do you consider site visits to be of high value?
- Should there be a platform to share info (also for comments)? – access only for WG members?

Slide 3

How to improve the information exchange? - 2

- Why did you provide info (e.g. to be mentioned as best performer or …)?
- Would you provide more info upon written agreement on confidentiality?

Annex 8. Agenda of the Workshop

WORKSHOP ON THE EMAS REFERENCE DOCUMENT FOR THE RETAIL TRADE SECTOR
SEVILLA, 18-19 NOVEMBER 2010
DRAFT AGENDA

18 NOVEMBER 2010: 15.00 – 18.30

1.	**Opening and welcome by chairperson**		**1500 - 1520**
2.	**Purpose and goals of the workshop**		**1520 - 1530**
3.	**Introduction to the EMAS regulation** – presentation followed by discussion		**1530 - 1545**
4.	**Overview of the information exchange to develop draft document** – presentation followed by discussion		**1545 – 1615**
5.	**Chapter 1 (general information) of the draft document** – presentation followed by discussion		**1615-1700**
	Break		**1700-1715**
6.	**Chapter 2 (techniques) of the draft document** – presentation followed by discussion		**1715-1830**

19 November 2010: 9.00 – 17.30

7.	**Chapter 2 (techniques) of the draft document** – presentation followed by discussion		**0930 - 1100**
	Break		**1100 - 1120**
8.	**Chapter 2 (techniques) of the draft document** – presentation followed by discussion		**1120 - 1310**
9.	**Lunch**		**1310 - 1430**
10.	**Chapter 2 (techniques) of the draft document** – presentation followed by discussion		**1430 - 1500**
11.	**Break**		**1500 - 1515**
12.	**Chapter 3 (emerging techniques) of the draft document** – presentation followed by discussion		**1515 - 1545**
13.	**Discussion on the potential improvement of the information exchange process** – presentation followed by discussion		**1545 - 1645**
14.	**Break**		**1645 - 1700**
15.	**Summary of the conclusions**		**1700 - 1730**
16.	**Close of workshop**		**1730**