

## Appendix I: Questionnaire and Questionnaire Results

It contains ten questions, all easily answered with a cross.  
Some questions can be completed with your own ideas.

This questionnaire was designed for within the scope of ECOLIFE II, a thematic network funded by the European Commission. The network focuses on the product-service life cycle of electr(on)ic products, and involves key players in the electronics and automotive industries in all of the various stages of the product-service life cycle – from component suppliers and product manufacturers, to service and logistic suppliers and the End-of-Life processors. The main activities of the network focus on the environmental and economic aspects of product design, functional innovation and service-system innovation.

Many companies have set up their own environmental communication campaigns, with an important emphasis on the environmental benefits of products and services provided. However, a great variety of such tools has led to consumers expressing lack of trust and confidence. This questionnaire about your company's environmental communication/information will become a valuable building block for construction of guidelines on effective environmental information systems on the way towards establishing Europe as a global reference site for effective environmental declarations, communications and standardisation.

For more information please visit our website: <http://www.ihrt.tuwien.ac.at/sat/base/EcolifeII/index.htm>.

Thank you very much for your participation!

### 1. Please provide information on your company

	Please mark where appropriate, e.g. (X)
Name (optional)	
Year of establishment	
Country of origin	
Turn over	
Number of employees	<input type="checkbox"/> 1-50 <input type="checkbox"/> 51-250 <input type="checkbox"/> 251-500 <input type="checkbox"/> 501-
Industrial sector	<input type="checkbox"/> Electrical/Electronic <input type="checkbox"/> Automotive <input type="checkbox"/> Municipality <input type="checkbox"/> Mechanical Engineering    ( <input type="checkbox"/> Waste Management
Role in the product life cycle	<input type="checkbox"/> Supplier <input type="checkbox"/> Producer <input type="checkbox"/> Retailer <input type="checkbox"/> Municipality <input type="checkbox"/> Recycler

We will welcome any additional information:.....

.....

.....

**2. What made you start carrying out environmental communication/information?**

	Please mark where appropriate
Legislation	
Stakeholding, internal strategy	
Stakeholding, external demand	
Marketing strategy	
To change customer behaviour	
Revised corporate mission statement including environmental matters	

Other:.....

**3. Which words would best characterize your environmental communication?**

	Please mark where appr.
Information (enlighten public of your activities)	
Instruction (teach public how to handle products)	
Integration (make society feel that you think of it when you make decisions)	
Influence (try to make public act in a certain manner)	
Authorization (explain your actions to the public)	

Other:.....

**4. What kind of information do you send with your products and what do you find important for the user to know?**

	Yes	Important
Energy use off-mode		
Energy use on-mode		
Energy use stand by-mode		
Toxic materials		
Today's environmental problems		
The source for environmental problems		
Environmental impact for this type of product		
User guidelines to use product right and minimise impact		
Teach people to act in a good environmental way		
Regulations for this type of product		
Describe your measures for minimising environmental impact		
Possible future solutions for reducing the negative impact		
Best way to handle used product		
Description of used labels on product/wrapping		
Easy to understand examples of environmental information, e.g. "if all TVs had this feature we would save xx €/year in energy"		
Upgrading options instead of buying new (if possible)		
Contacts for more product specific environmental information		
Contacts for more corporate specific environmental information		
Contacts for more industry specific environmental information		

Other:.....

**5. With whom and how often do you communicate environmental matters?**

Stakeholder	Frequency	Never 0	1	2	3	4	Very often 5
Creditors							
Insurers							
Investment and fund managers							
Financial analysts							
Shareholders							
Suppliers							
Mail order firms							
Warehouses							
Other corporate customers							
Private customers							
Subsidiaries							
Employees							
Lobbying groups							
Certification associations, e.g. Energy star							
Test magazines							
Radio/TV							
Newspapers							
Local communities							
Government							
Regulators							
Academic institutions							
Trade unions							
Non-Governmental Organisations (NGOs), e.g. Greenpeace							

Others:.....

**6. Which mediums do you use to transfer the environmental information?**

	Please mark where appropriate
Internet	
Intranet	
Labels	
Instruction manuals	
Market surveys	
Workshops with Stakeholders, external	
Workshops with Stakeholders, internal	
Marketing campaigns	
Product catalogs	
Press releases	
Company report	
Participation in trade fairs	
Information CDs/cassettes that go with Products (where possible)	
Environmental reports	

Other:.....

**7. How do you get feedback from external stakeholders?**

	Please mark where

	appropriate
Market surveys	
Internet	
Intranet	
Questionnaires that come with products	
Workshops	
Customer service desks	

Other:.....

**8. What has, in your opinion, an influence on your company's present environmental communication?**

	Low 1	2	3	4	High 5
<b>Internal factors</b>					
Organisational structure					
Corporate culture					
Corporate strategy					
Management					
Costs					
<b>External factors</b>					
Private customers					
Corporate customers					
Mass media					
Competitors					
Legislation					
NGOs					

**9. How would you characterise the environmental image of the electronics industry and that of your own company?**

	Negative 1	2	3	4	Positive 5
Electronics industry					
Own company					

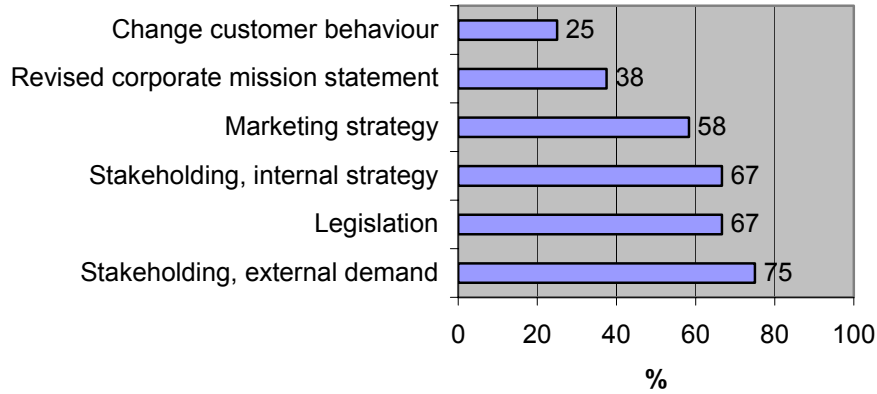
**10. What do you think about environmental communication in the future?**

There will be/It will be...	Please mark where appropriate
More legislation	
Increase in demand	
Decrease in demand	
More specific information for different stakehold	
Less eco-labels	
New ways of communication	
More based on facts	
More based on marketing	
More complex	

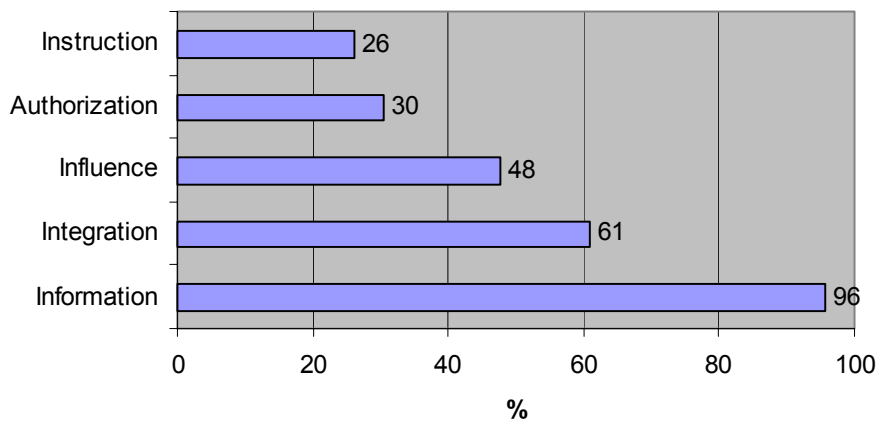
Other:.....

## Questionnaire results

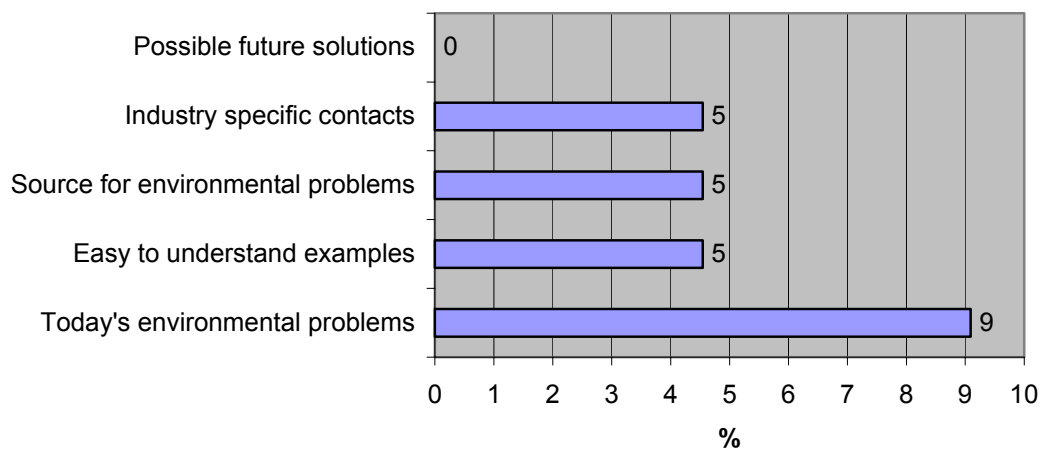
### Question 2: Reason to start



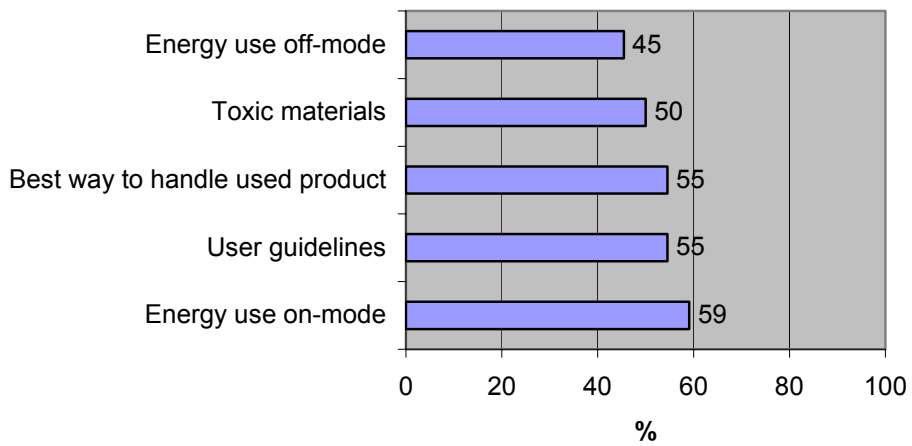
### Question 3: Characterisation of communication



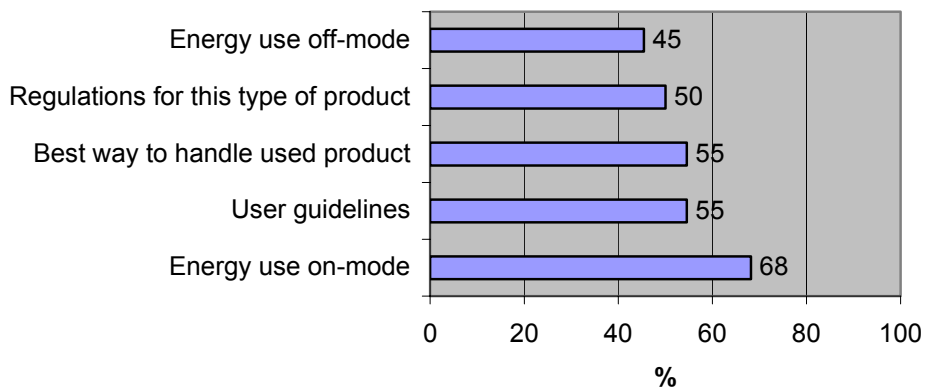
### Question 4a: Five least transmitted information



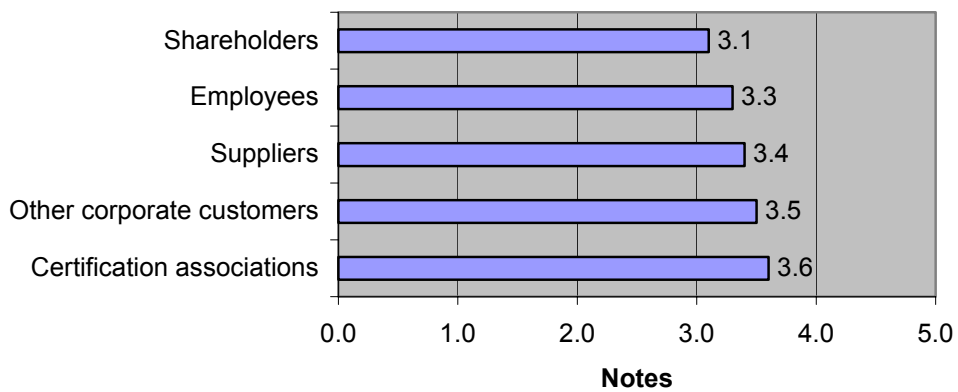
**Question 4b: Five most important information**



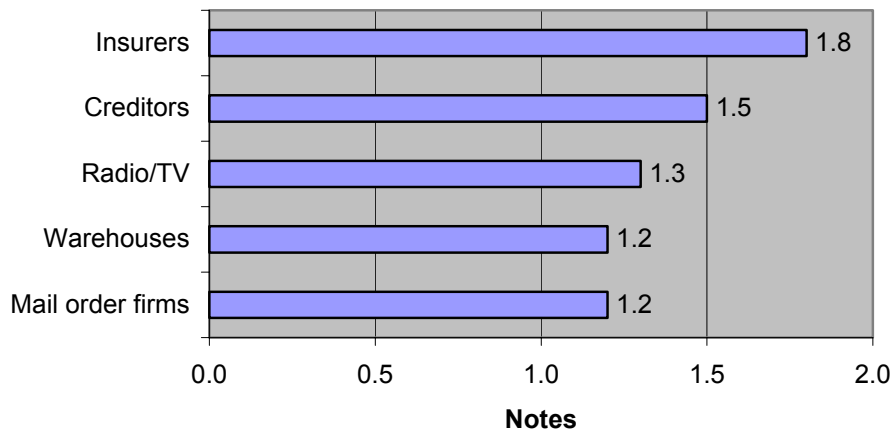
**Question 4c: Five most transmitted information**



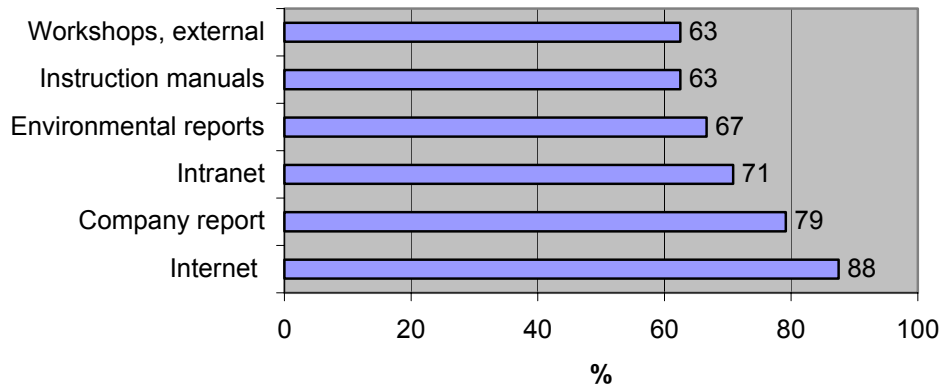
**Question 5a: Five highest average scores**



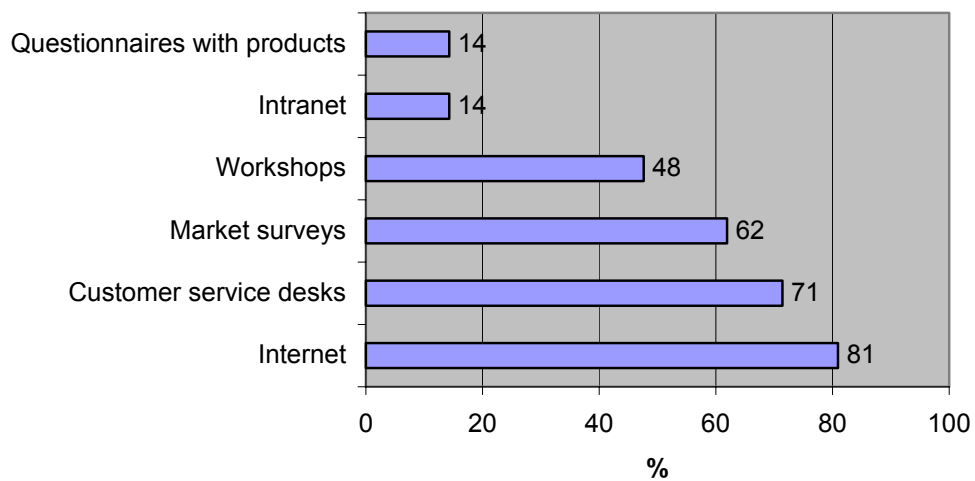
**Question 5b: Five lowest average scores**



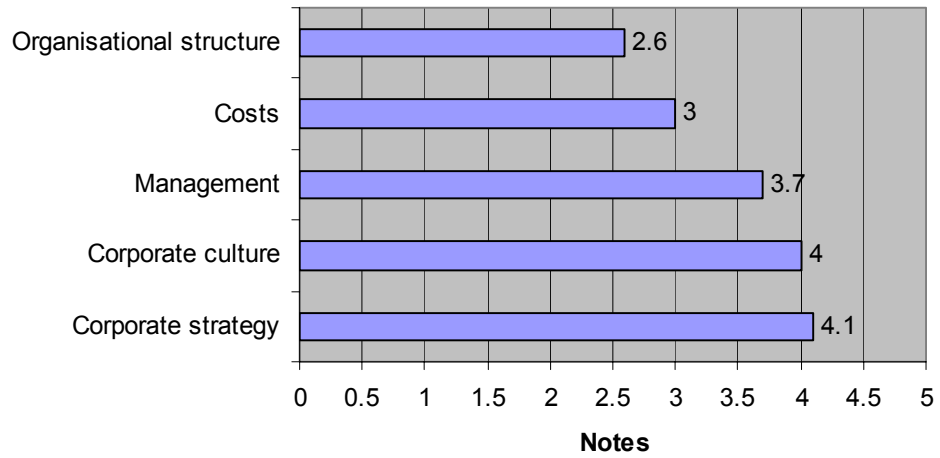
**Question 6: Ways of communication**



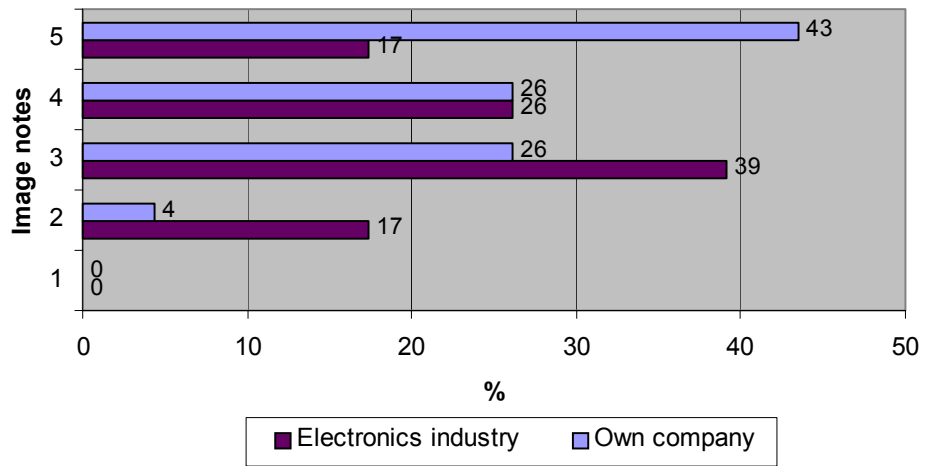
**Question 7: Ways of stakeholder feedback**



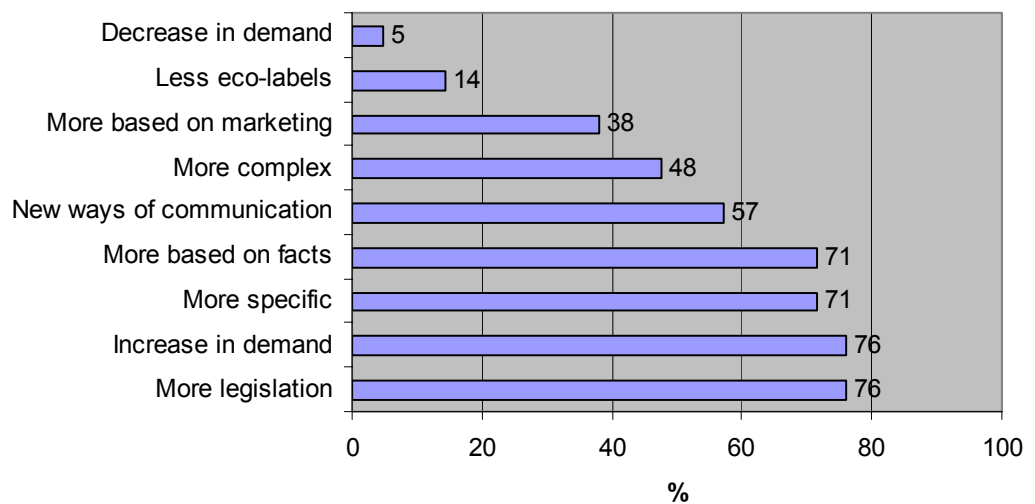
**Question 8: Average influence value internal factors**



**Question 9: Image notes of own company and industry**



**Question 10: Future thoughts**





## Appendix II: Example Forms, Guidelines, and Questionnaires

### A. EIA MODEL MATERIAL DECLARATION DATA SHEET

**MANUFACTURER NAME:**

**DATE:**

**CONTACT (Name/E-mail):**

**MANUFACTURER PART NUMBER(S)**

**PRODUCT/PART NAME & DESCRIPTION:**

#### CONTROLLED MATERIALS

The product neither contains nor was manufactured with materials listed in Section A of EIA's Material Declaration Template

The product does contain or was manufactured with materials listed in Section A of EIA's Material Declaration Template.

If so, please complete the following table:

Section A Material	Description of Use	Location in product <sup>1</sup>	Quantity contained or used (specify units) <sup>2</sup>

#### RESTRICTED MATERIALS

The product does not contain listed materials in prohibited applications indicated in Section B of EIA's Material Declaration Template.

The product does contain listed materials in prohibited applications indicated in Section B of the EIA Material Declaration Template.

If so, please complete the following table:

Restricted Material	Description of Use	Location in product <sup>1</sup>	Quantity contained (specify units) <sup>2</sup>

#### MATERIALS OF INTEREST

The product does not contain any listed materials of interest (see Section C of EIA's Material Declaration Template).

The product does contain listed materials of interest as indicated by Section C of EIA's Material Declaration Template.

If so, please complete the following table.

Material of Interest	Description of Use	Location in product <sup>1</sup>	Quantity contained (specify units) <sup>2</sup>

**COMMENTS** (Please provide any clarification of responses, if necessary)

<sup>1</sup> Provide information on the specific products, components, or subcomponents containing listed materials. Include part numbers or other identification where available.

<sup>2</sup> Estimate the absolute quantity and/or concentration of the listed material in the product. Estimated quantities may be determined using product assays or engineering calculations based on the reported content of raw materials used in the product. Where the product declaration covers a range of products, or where disclosure of actual quantities may result in disclosure of confidential business information, quantities or concentrations may be expressed as a range. However, purchasers may request more accurate information on specific products or components.

## **B. EICTA's Guidance Document on the Appliance of Substances under Special Attention in Electric & Electronic**

**A complete list of content from its Attachment I dealing with Alkanes (EICTA, 2002).**

### **Attachment I: Alkanes, C10-13, chloro** (Vsn: May 2002)

**Chemical compound:** Alkanes, C 10-13, chloro (Short Chain Chlorinated Paraffins, SCCPs); CAS-No. 85535-84-8

**Special applications:** There is not a large usage of SCCPs in the electrical and electronic industries. Very small amounts (much less than 1 wt%) of SCCPs are present in Mid-Chain Chlorinated Paraffins. MCCPs or Mid-Chain Chlorinated Paraffins are used as secondary plasticiser and flame retardant for PVC and chlorinated rubber in cable insulation, which does not require special attention under regulations such as the water endangered class (WGK), International Maritime Dangerous Goods (IMDG), etc.

**Benefits:** Mid-Chain Chlorinated Paraffins: cost effective, chemical stability, compatibility with PVC, low volatility, insoluble in water. MCCPs are much less harmful to the environment than SCCPs.

**Reasons for special attention:** SCCPs are classified as dangerous for the environment, toxic to aquatic organisms (R50), may cause long term irreversible effect in the environment (R53) under the criteria of the of the EU Dangerous Substance Directive 67/548/EEC.

**Evaluation:** The EU's existing substance regulation Risk Assessment (see further information) identifies a need for risk reduction measures only in Metal Working Fluids and leather finishing products. No other applications are deemed to require risk reduction measures in the scientific evaluation carried out in the EU Risk Assessment, and the suppliers of Short Chain Chlorinated Paraffins fully support this decision. Euro Chlor now believes that the position of SCCPs in Metal Working Fluids is under control, and no further restrictions are identified for these substances.

**Recommendations:** In all emissive applications where Short Chain Chlorinated Paraffins are still in use (i.e. NOT in the E&E industries, but, e.g., extreme pressure lubricants), the manufacturers recommend to switch to Mid-Chain Chlorinated Paraffins wherever possible.

**Current affairs:** Oslo and Paris Conventions for the Prevention of Marine Pollution. Parcom decided (Decision 95/1) to phase out all applications of Short Chain Chlorinated Paraffins by the end of 1999, except for uses in rubber conveyor belting, and dam sealants, where the phase out date was deferred until end 2004. The UK has not accepted this decision, as they believe that the action was premature while the EU Risk Assessment was underway. Because of this, UK industry is not obliged to comply with the Parcom decision.

European Commission Regulation 793/93 – Evaluation and control of the risk of existing chemical substances.

Short Chain Chlorinated Paraffins were studied on the first priority list under this regulation, and the conclusions of the Risk Assessment were published in the Official Journal on 13 November 1999. The EU Risk Assessment concluded that there was no adverse health issue relating to SCCPs, and that the carcinogenicity seen in rodents results from mechanisms not relevant to human health. Further work (by Cliff Elcombe) has confirmed this view. Industry is working with the UK Authority, Rapporteur for the SCCP Risk Assessment, to use this new data to challenge the Category 3 Carcinogen Classification adopted in the 25th Adaptation to Technical Progress of the Dangerous Substances Directive. The R40 risk phrase associated with this classification has been modified from "Possible risks of irreversible effects" to "Limited evidence of a carcinogenic effect" in 2001 by the 28<sup>th</sup> Adaptation to Technical Progress of the same Directive.

The only areas of concern, where risk measures will be needed, are in the use of Metal Working Fluids, and Leather Fat Liquors. DG Enterprise of the European Commission is currently considering appropriated measures. The impact of these is as yet unknown. The Risk Assessment confirmed the provisional classification by producers, of Short Chain Chlorinated Paraffins being dangerous for the Environment carrying the Risk Phrase R50/53. There is a noticeable inconsistency between the EU Risk Assessment Conclusion and the PARCOM 95/1.

United Nations Economic Commission for Europe (UN/ECE) Protocol on Persistent Organic Pollutants (POPs).

A Protocol on Persistent Organic Pollutants has been finalised under the Long Range Transboundary Air Pollution activities, culminating in an agreed list of substances which will require either elimination or restrictions on use. Processes and criteria for additional substances are included in the Protocol, and these are science-based with acceptable quantitative criteria. This initial list does not include Short Chain Chlorinated Paraffins, although they were considered for inclusion. It is anticipated that Short Chain Chlorinated Paraffins will be at the top of the priority list for the first round of possible additions, with action expected around 2002.

• **Further information:** Risk Assessment (summary report) - Official Journal of the European Communities from 13. November 1999 in L292/42

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e-mail: [ecsa@cefic.be](mailto:ecsa@cefic.be)  
WebPages at: <http://www.eurochlor.org>

• **Voluntary ECO labels and ECO declarations:**

Voluntary restrictions exist in the following ECO label systems:

EU ECO Flower for desktop computers.

Decision of the Commission (1999/698/EEC) on portable computers.

German Blue Angel for workstation computers is RAL-UZ 78.

German Blue Angel for copiers is RAL-UZ 62.

German Blue Angel for printers is RAL-UZ 85.

German Blue Angel for TV sets is RAL-UZ 91.

German Blue Angel for portable computers is RAL-UZ 93.

German Blue Angel for faxmachines, telecopiers and combined faxmachines is RAL-UZ 95.

Nordic Swan for copiers.

Nordic Swan for personal computers.

Nordic Swan for printers and fax machines.

Swedish ECO label, TCO'95 and TCO'99 for desktop and portable computers.

Voluntary declaration obligations exist in the following ECO declaration systems:

ECMA TR/70, June 1999, "Product related environmental attributes", see their WebPages

at: <http://www.ecma.ch>

NITO (Nordic IT Organizations) ECO declaration: July 2000, see their WebPages at:

<http://www.itforetagen.se>

## **C. Technical Report TR/70 Product Related Environmental Attributes**

**Product information/description**

The following should be provided where applicable. This list should include, but not be limited to:

- type of product;
- brand name;
- model number;
- supplier;
- weight and dimensional characteristics (e.g. metric units).

An appropriate environmental policy, management system or programme may be declared.

**Extension of product lifetime**

The design considerations of the basic unit, which allow the product features and product capability/profile to be enhanced, should be listed. The following should be declared:

- upgradability/extendibility;
- availability of spare parts for the product after end of production in years;
- availability of service for the product after end of production in years.

The service warranty/policy offered by the supplier should be listed.

If spare part and service availability is restricted, restrictions should be listed.

**Power consumption**

All relevant products and equipment should list the power consumption in watts for all modes appropriate to the product type.

Measurement should be performed using the procedure specified by the EPA Energy Star programme for the appropriate product. Publication IEC 107-1 should be used for TV sets. If a product allows multiple levels of energy saving modes, these should be listed in the product declaration. Products following any other guidelines can list this information with the appropriate measurement in the appropriate section(s) of the product declaration (annex A). The measurement protocols associated with these guidelines should be followed.

**Radio frequency emissions**

The declaration should include a statement of compliance with radio frequency emission requirements, listing the applicable legislation and standards or by referring to, for example:

- Declaration of Conformity (e.g. supplier's declaration relating to the CE marking);
- . And/or any other requirement.

**ELF/VLF emissions from VDUs**

A declaration should be made, as appropriate, to electromagnetic near-field emissions which emanate from a visual display unit (VDU) which is defined as a "device for the presentation of information by the controlled excitation of a screen, regardless of the display technology or power

source". This definition does not include displays used solely as machine status indicators or displays incapable of displaying more than four lines of text. Public perception and increased requests from customers related to electromagnetic field emissions which emanate from monitors led to the Swedish guideline MPR II - 1990:8 for Band I and II ranges in both electric and magnetic fields, as well as electrostatic fields.

*NOTE This clause applies only to computer monitors and notebooks.*

### **Acoustical noise**

Noise emission information for relevant products should be provided as *declared sound power levels  $L_{wAd}$  and sound pressure levels  $L_{pAm}$*  for the operational and idle modes, the modes should be specified. For the sound pressure level, the measurement distance should be declared. Measurements should be made according to standards ISO 3741, ISO 3742, ISO 3744 or ISO 3745 and the result declared according to ECMA-109 (ISO 9296:1988). If a specific standard for the product is available, this standard should be used, e.g. for IT and telecommunication equipment, ECMA-74 (ISO 7779:1988).

### **Chemical emissions**

Due to the lack of an international standard for measurement of chemical emissions (e.g. ozone, VOC, dust), it is recommended that the emission values are reported in terms of concentration (e.g. mg/m<sup>3</sup>) and/or emission rate (e.g. mg/hour) in full operation of the product. The measurement protocol shall be listed on the declaration.

*NOTE Recognizing the need for such a standard, ECMA TC38 has set up a Task Group to draft such a standard.*

### **Materials**

A declaration should be made for at least the following substances (covered by legislation and/or voluntary initiatives) that they are not present in concentrations exceeding the natural background levels:

asbestos;

cadmium (in plastic materials, CRTs, packaging and inks);

mercury;

ozone depleting substances, according to those categories that are already banned in the Montreal protocol;

chloroparaffins with chain length 10-13 C atoms, chlorination greater than 50% contained in mechanical plastic parts heavier than 25 g;

lead contained in mechanical plastic parts heavier than 25 g;

PCB or PCT;

polybrominated biphenyls and their ethers (CAS 32534-81-9, 32536-52-0, 1163-19-5, 13654-09-6) contained in mechanical plastic parts heavier than 25 g.

*NOTE Companies may however quote to a mechanical plastic part weight above 50 g instead of above 25 g.*

The presence of any of the above listed substances which exceed natural background levels should be declared. Determination of the material composition should be conducted in accordance with accepted industry practices.

### **Disassembly**

The declaration should list any design feature that has been included in the product to facilitate disassembly and/or recycling by professionals. For example:

- statement that mechanical plastic parts heavier than 25 g are marked according to ISO 11469;
- inclusion of snap-fit assembly;
- number and type of joints and fixings for major components.

### **Batteries**

The following items should be declared for all batteries or accumulators contained in the product:

- the type of battery or accumulator (e.g. nickel-cadmium) used;
- its weight;
- batteries used in the product are in conformance with the EU Directives 91/157/EEC ('hazardous substances'), 98/101/EC (amendment) and EU Directive 93/86/EEC ('marking requirements') and any other applicable national or regional regulations;
- information concerning the handling of the batteries in the product including proper installation, removal and disposal is given in the product documentation.

### **Product packaging**

The following should be declared:

- type and weight of packaging materials (e.g. wood, paper/cardboard, plastic, etc.);
- marking of packaging materials (e.g. according to ISO 11469 or DIN 6120);
- any supplier initiated take-back schemes for used packaging;
- packaging should be in conformance with national guidelines, regulations and/or standards such as those implementing the EU Directive 94/62/EEC. Various country and EU initiatives could include disposal, reuse and/or recycling instructions, types of materials permitted/banned, etc. Local ordinances may also apply.

### **Other take-back information**

Statements on availability of take-back schemes for products and consumables should be given.

### **Documentation**

The range of post-consumer recycled content should be declared. The paper bleaching method should be specified.

## **D. HP Supplier Environmental Performance Review Questionnaire**

Issue Date: May 22, 2001

Document Number: HP 5951-1746-1 (CIQC STD 0014)

Revision Number: Rev. 1

### **I. INTRODUCTION**

As supply chain management becomes more complex in today's procurement processes, supplier environmental management has become important to assure environmental compliance, to build awareness for continuous cost and environmental improvement opportunities, to minimize business risks and liabilities, and to support long term growth. Furthermore, proliferation of customer queries on environmental performance has become a burden to suppliers. Common tools enhance supplier relationships.

### **II. PURPOSE OF QUESTIONNAIRE**

To provide a common tool to gather supplier environmental practice information, and to optimize the transfer of environmental performance information between purchasers and suppliers.

### **III. SCOPE OF QUESTIONNAIRE**

- Addresses environmental performance at supplier company, not products or health and safety issues
- Constructed in modules:

Part I: Compliance assurance and continuous improvement questions

Part II: Risk assessment questions

- Business and procurement focus
- Internationally viable, not limited to the United States

### **IV. GENERAL REQUIREMENTS**

It is expected that suppliers will:

- Have a written environmental policy with a commitment to continuous improvement and performance objectives with implementation plans and measures.
- Have a system in place to track environmental laws and regulations, and their compliance with those that are applicable to their facilities.

### **V. USAGE GUIDELINES**

The questionnaire is recommended to be used in conjunction with supplier reviews.

Part I is to be used for all suppliers.

Part II is for suppliers who are:

- Critical (e.g., sole source, highest revenue components/parts)

- High volume
- Whose processes have major environmental aspects

***PART I: Continuous Improvement & Compliance Assurance***

**If your company is ISO14001 certified, please provide a copy of the relevant certificates, skip**

***Questions 1-6, and go to Question #7 directly.***

1. Does the company/facility have a written environmental policy statement? If "yes", please attach a copy. Does the policy statement include a commitment to continuous improvement of environmental performance?

2. Does the facility have written environmental performance objectives/targets and implementation plans to reduce cost or risk? Please describe three significant environmental performance objectives/targets, performance plans and measures for the next twelve months.

*(Examples of cost-reducing or risk-reducing environmental performance improvements may include: waste minimization, pollution prevention, source reduction including recycling and reuse targets, energy use, water consumption, packaging programs incorporating targets for reduction, reuse and recycled content, and enhanced training. These examples are not meant to exclude other types of programs, which you may be implementing.)*

3. Is a management representative assigned responsibility for facilitating compliance with environmental regulations? If "yes", please give name and title.

4. Does the facility have a system to track environmental laws and regulations that apply to the operations of the facility? If "yes", is there a system for communicating this information and training to the appropriate personnel?

5. Are periodic environmental regulatory compliance audits of the facility's operations conducted?

6. Does the company have documented processes to implement corrective action plans for non-conformance to environmental laws and regulations?

7. Does the company have a documented supplier environmental program that addresses conformance of its suppliers to legal requirements?

***Notes: The elimination of ozone-depleting substances, and the supplier's obligation to comply with applicable legal requirements are addressed by contracts, and General Specification of Environment.***

***PART II: Risk Assessment***

1.Environmental Permits, Chemical Registration & Compliance Status



1.1 Is the facility required to have any types of environmental permits or registrations?

Please check those that apply:

Industrial wastewater discharge  
Hazardous waste storage  
Hazardous waste treatment  
Hazardous materials use/storage  
Air emissions  
Storage tanks  
Radioactive materials  
Other (please list)

1.2 Does the facility monitor its operations, emissions, or discharges to check compliance with permit requirements? Do regulatory agencies regularly monitor and/or inspect the facility? Is the facility in compliance?

1.3 Has the company obtained all necessary chemical registrations and submitted all necessary notifications for substances imported, exported, or used at the facility? *(Examples include, but not limited to, United States Toxic Substances Control Act (TSCA), European Inventory of Existing Commercial Substances/European List of Notified Commercial Substances (EINECS/ELINCS), and Canadian Domestic Substances Lists.)*

## 2. Hazardous Wastes Management

2.1 Does the facility generate hazardous waste? If "no", go to Question 3.

2.2 Are hazardous wastes that are stored, treated, or disposed of on-site managed in properly designed facilities that will prevent future environmental impacts?

2.3 Are off-site transporters and treatment, storage or disposal facilities properly licensed?

## ***PART II: Risk Assessment (continued)***

### 3. Industrial Wastewater and Air Emissions Management

3.1 Does the facility treat its industrial wastewater prior to discharge? Please describe.

3.2 Is the facility required to control its industrial emissions? If "yes", does the facility have air emission control equipment installed? Please describe.

### 4. Environmental Release Potential

4.1 Does the facility use chemicals that, if released accidentally, could create a business interruption?

*(Examples include, but not limited to, high volume chemicals, either pressurized gases*

*or liquids that are flammable, highly toxic or radioactive)*

4.2 Does the facility have written emergency response plans in case of a release to the environment?

*(Examples include, but not limited to, training, drills, chemical hazard communication, hazard identification, audits of high-risk areas, mutual aid relations, emergency response and disaster recovery equipment.)*

## 5. Company Environmental Standards

5.1 Does the company have minimum company environmental standards that apply to the facility's operations regardless of the country in which the facility is located? If "yes", please describe.

## 6. Business Interruption Potential

6.1 Is the company/facility aware of any chemicals used in the facility's manufacturing processes whose availability is currently restricted or scheduled to be restricted in the future due to environmental requirements (e.g., CFCs)? Please list chemicals that apply. If yes, does the company/facility have written plans to eliminate these chemicals, or otherwise accommodate their reduced availability?

## **E. Guidance Document**

### ***PART I: Continuous Improvement & Compliance Assurance***

*An environmental management system should measure, improve and communicate the environmental aspects of the facility's operations in a systematic way. An effective environmental management system should have elements that can be integrated with other management requirements to assist the supplier in achieving both environmental and economic goals.*

Q1. A written environmental policy statement outlines the commitment, purpose, objectives and mission of a facility's/company's environmental practices. The environmental policy statement provides direction and focus of the facility's/company's environmental improvements and progress. Reviewing the policy statement may give indications of priorities and of the strength of the commitment.

Q2. Written performance objectives/targets and implementation plans provide and communicate direction, resources, commitment, and schedules to complete identified tasks. Reviewing the plans ensures that the policy is being adequately and effectively implemented. Objectives should be measurable and pertinent to the operation or activity.

Q3. Identifying a management representative provides focus, priority and direction for environmental programs within a facility/company.

Q4. Regulatory compliance and environmental management system audits are an important aspect of an effective environmental management system. A system to track environmental laws and regulations provides greater assurances that a facility will stay in compliance. Communication and training of the environmental laws and regulations is important to stay in compliance.

Q5. Periodic compliance audits are a method to assure and to improve a facility's/company's compliance to environmental regulations. The scope of the audit should take into consideration the size, type of activities, and the risks of the facility/company and should be conducted by persons who are technically qualified.

Q6. Documented processes to implement corrective action plans for non-conformance is an essential part of compliance assurance.

Q7. Documented supplier environmental performance management program that ensures legal compliance is an essential part of environmental regulatory compliance in the outsourcing situation. Management of Tier 2 suppliers is the responsibility of Tier 1 suppliers.

### ***PART II: Risk Assessment***

Q1. A supplier's knowledge of applicable environmental permits and registrations provide assurance that a facility can meet specific compliance requirements. Facilities that do not

obtain registrations or permits for the use, importation or exportation of chemicals or chemical wastes could be subject to temporary or permanent shutdowns and legal action.

Q2. The management of hazardous waste presents risks and liabilities for facilities. Managing hazardous waste with care can reduce operational and legal exposure, and could impact a supplier's ability to deliver products in a timely manner.

Q3. Industrial wastewater is generated in a manufacturing process and discharged to a municipal treatment plant, surface water, or to land. Facilities/companies should identify environmentally harmful wastewater discharge, and provide necessary controls and/or treatment to comply with applicable regulations. Industrial air emissions are any emissions that are regulated by the government, or which damage public health or the environment if concentrations are not controlled.

Q4. Facilities that use high volume dangerous chemicals can experience releases that create business interruptions. Identification these chemicals and quantities helps in determining the relative risk of business interruption. Facilities/companies with emergency response plan are more likely to recover more quickly after an accident.

Q5. Company environmental standards establish the minimum operation standards that apply to any of their facility's operation regardless of country location. The documented company environmental standards establish ground rules in managing multi-country, multi-factory organizations.

Q6. Company's/facility's awareness of current and future restricted chemicals used in their manufacturing process is crucial to avoid potential business interruption due to environmental requirements. Identification of these chemicals and documented plans to eliminate these chemicals can minimize unwanted business interruption.

## **F. Ericsson's Environmental Self-Assessment Form**

### **Environmental Self-assessment Form**

#### **1 Introduction**

The objective for this checklist is to provide information about the progress of your environmental work. The result will be available to Ericsson companies around the world.

Please answer ALL questions. If the requirements are not applicable to your operations, please state so. Please, also use the comment field to clarify and complement your answers. For example, if you use a restricted substance state which substance and why. Note that if you answer Yes to question 1.1, you do not have to answer questions 1.2 to 1.8. If you answer Yes to question 2.3, you also do not have to answer 2.4.

**There is an automatic check to ensure that all required information is entered. This will not allow you to print or save the form until you have done so. If you e.g wish to print f**

**The Form**

**how, fill in some dummy data.**

<b>Environmental Management Systems (EMS)</b>		<b>Yes</b>	<b>No</b>	<b>N/A</b>	<b>Comments</b>
1.1	Is your company certified according to ISO 14001 or equivalent? <i>If No on question 1.1, go to question 1.2. If Yes, go to 2.1.</i>				
1.2	Does your company have an environmental policy which is approved by the board of directors or by the general manager?				
1.3	Has your company made a decision to be certified according to ISO 14001 or equivalent?				
1.4	Does your company use a system to track environmental laws and regulations that apply to the operations of your company?				
1.5	Does your company consider environmental issues in the operational system?				
1.6	Does your company use a system to document significant environmental aspects?				
1.7	Does your company have a program for environmental improvement?				
1.8	Does your company have an environmental education program for the employees?				
<b>Design and Manufacturing</b>					
2.1	Does your company use a documented design process that consider environmental impact when selecting materials or new design solutions?				
2.2	Does your company use substances banned by Ericsson?				
2.3	Does your company avoid all Ericsson restricted substances? <i>If Yes on question 2.3, go to question 3.1. If No, go to 2.4.</i>				
2.4	Does your company avoid all but one of the Ericsson restricted substances?				
<b>Product Information</b>					
3.1	Is your company prepared to declare the materials content for products delivered to Ericsson?				
3.2	Is your company prepared to supply Life Cycle Inventory Data or Life Cycle Assessments for processes and products?				
3.3	Is your company willing to provide information about how the delivered materials shall be treated at end of life?				
<b>Transport</b>					
4.1	Is your company willing to analyse the environmental aspects of transportation of goods to Ericsson?				

## **Appendix III: EMA – Experiences and Implementation Steps**

### **A. Gained experiences from EMA**

**(from chapter 3.1 Results/outcomes of EPA Victoria, 2003)**

An obvious difference between the various case studies were the industries in which the organisations operate. At the outset this might have suggested that very different approaches to accounting would be needed, and that very different findings would be generated. However, a review of the reports from the individual case studies shows that there were a great deal of similarities between the case studies in terms of what limitations were found in existing systems, and in terms of what improvements were suggested. The following were common across the case studies:

- The methodologies all focused on considering how existing accounting systems accounted for environmental costs, and whether improvements could be made to make the allocations of environmental costs to products or process more reflective of the actual use of resources. It was generally agreed that once a determination is made of what environmental costs should be monitored, then some form of activity based costing would be worthwhile to attribute the environmental costs to the activities that generated them. As indicated in Section 1.2.2 of this report, activity based costing (ABC) is something that management accountants would already be familiar with. ABC is a management accounting tool for understanding and allocating costs.
- Initial investigations were limited to Tier 1 and Tier 2 costs (using the classification scheme provided by the US EPA, as summarised in section 2.2 of this report).
- Certain environmental costs, for example, costs that arise in relation to the use of energy, water, or other resource consumption were hidden (commonly accumulated in overheads) by the existing accounting systems. Consequently costs were being allocated to processes or products in a manner that did not necessarily reflect their actual usage and therefore some operations or processes were effectively subsidising others because of limitations in existing accounting information.

For example, within the carbonising process being used at GH Michell & Sons Pty Ltd it was found that all types of wool were being allocated the same processing costs when further examination revealed that 'dirtier' wools consumed more resources in processing. By failing to take this into account, cleaner wools were subsidising dirtier wools.

- It was generally found that the waste costs of organisations were either not reported, or were grossly understated because they did not consider the costs of bought in resources which were included within the waste. Waste costs typically reflected the amount paid to subcontractors to remove the waste.

In the case of AMP it was found that waste costs were, in most cases, included within the

rental charge paid by AMP, which provided further difficulties in terms of monitoring waste costs. At MLC waste costs were included ('hidden ') within 'administrative and general overheads '.

- Failure to properly account for environmental costs had meant that numerous opportunities for improving the financial performance of the organisations had been lost.
- Fairly minor and low cost changes to existing systems of accounting could lead to significant improvements in how the business conducted its operations.
- The inclusion of an additional field into the accounting system to provide non-financial information could also provide benefits in terms of being able to monitor resource consumption.

For example, when amounts are paid for electricity or water, we could also include a data field to record the amount of the resource actually consumed.

- Failure to allocate particular environmental costs, such as electricity and raw material costs, to particular processes had implications when capital budgeting decisions were being undertaken.

At Cormack Manufacturing Pty Ltd it was found that factoring in expected future environmental costs (for example, to do with energy consumption) impacted decisions with regards to acquisitions of new compressors and even the decision as to whether factory walls should be painted (painting the walls lighter colours meant less lighting was required). At MLC the choices made when considering air-conditioning capital works would have been influenced had such costs, as future energy costs, been considered.

- Failure to consider environmental costs was found to have implications where choices could be made to manufacture a product using alternative available machines.

For example, at Cormack Manufacturing Pty Ltd it was shown that once environmental costs are taken into account then a switch might be made from the 'cold runner' process to the 'hot runner ' process to produce bottle tops. At MLC, the choice of whether to distribute newsletters via email or by mail was based on incomplete information in the absence of including the resource costs associated with preparing hard copies. At MLC the choice relating to whether to maintain the existing swimming pool, or to use a neighbouring pool were also influenced once environmental costs were taken into account.



## **B. Implementation steps of EMA according to EPA Victoria**

**(from chapter 2.3 *Steps to be followed when implementing environmental management accounting*)**

In summary, borrowing from the experience of the case study participants, we can now provide a very broad overview of the steps an organisation could take if it is to implement an environmental management accounting system. These steps include:

### **1. Gaining support from senior management**

From the beginning it was imperative to be able to signal to employees that senior management support the project.

### **2. Defining the boundaries of the proposed system**

Are we to look at a product, a division, or an entire organisation? What is the scope of the costs to be considered (will we ignore, for example, 'societal costs')?

### **3. Ascertaining what are the organisation's significant environmental impacts**

Refer to material supporting any existing environmental management systems. Ensure the environmental management team is involved. Can dollar values be put on the impacts?

### **4. Determining, how if at all, environmental impacts are being accounted for**

Identify, if at all, where costs are being recorded for each environmental impact. Some of the information may be of a quantitative form, whereas other is qualitative. Note which costs do not seem to be recorded. Apply some form of process mapping (See Section 3.2 for further details). What waste-streams appear significant enough to justify additional review?

### **5. Defining environmental costs**

Defining environmental costs early in the process will minimise any ambiguity that might arise for interested stakeholders both internal and external to the organisation.

### **6. Determining who will be in the 'review team'**

You will need a mix of expertise, with the mix being somewhat dependant upon the boundaries of the proposed system. A typical project team would include:

- an individual with accounting expertise who understands the existing accounting system;
- an individual who understands how environmental management accounting can be used within the organisation and what opportunities it can provide;
- an individual with environmental expertise who is able to explain the significant

environmental impacts of the organisation;

- an individual who understands the resources consumed, or environmental costs being generated, by the processes or activities to be investigated;

- an individual with information technology expertise who is able to advise on whether particular IT suggestions are practical and feasible; and lastly,

- an individual from senior management who is able to ‘champion’ the project within the organisation.

Some people might have a mix of skills, such that the number of people to be involved would not necessarily be the same as the number of dot points shown above.

### **7.Reviewing existing accounting systems**

Determine how environmental costs are presently accounted for. Are the costs attributed to products by way of arbitrary allocations or by some form of activity based costing? Clearly list the environmental costs to be analysed and the bases of allocation currently being employed. This task will require close work with the accounting staff. Remember to consider what costs might be ‘hidden’.

### **8.Identify environmental revenue or cost cutting opportunities currently being ignored**

Where can improvements be made? Can waste be better sorted and recycled? Is waste being generated because of inferior materials being acquired? Is packaging currently being recycled and if not, why not? Could alternative suppliers who accept responsibility for packaging be used? How would such initiatives influence costs?

### **9.Suggest changes to existing accounting system**

The changes need to be clearly documented and it is essential that all implications of the changes be considered. For example, it is necessary to advise all users of the system about the changes, and why they are being made. Where possible, the process should include input from the people involved in preparing and using the data to ensure that suggested changes are practical. For example, if additional measurements are required, it would be useful to obtain opinions on what is the best way to incorporate the measurements.

### **10.Trial system by way of a pilot test**

As with all information systems, it is necessary to trial a system and to ‘iron out the bugs’ before the system goes ‘live’.

**Note:**

Continual communication and education about the project is extremely important to ensure its success and that staff understand the importance and benefits associated with being more environmentally focused.

## Appendix IV: Common Eco-Labels in Use

### The European Eco-label



The Flower scheme is part of a broader strategy aimed at promoting sustainable production and consumption. This aim can be achieved in the context of a "framework for an integrated life-cycle oriented product policy", as indicated in the new Environmental Action Programme "Environment 2010:Our Future Our Choice".

Being a market-based instrument, the primary function of the EU Eco-label is to stimulate the supply and demand of products with a reduced environmental impact. With respect to supply, the EU Eco-label has a clear objective of encouraging businesses to market greener, officially licensed products. On the demand side, the scheme gives European consumer the means to make informed environmental choices when purchasing.

At the same time, products eco-labelled in the EU scheme can give the guarantee that their compliance with established ecological criteria has been tested by independent third parties, the national and regional Eco-label Competent Bodies.

An essential characteristic of the scheme is that it is voluntary. There are no regulations to oblige manufacturers to apply for the label. Instead the scheme places emphasis on consumer demand to transform markets. Where demand is high for products which minimise harm to the environment, those bearing the EU Eco-label will have a competitive advantage - an important consideration when a growing number of business customers are seeking out goods which can prove that they meet high environmental standards.

The European Eco-labelling Scheme has the advantage of being EU-wide. It operates in the 15 member states of the European Union, as well as Norway, Iceland and Liechtenstein. This allows manufacturers to produce goods to a common specification, making the scheme consistent and supportive of the Single Market. Products bearing the EU Eco-label have the potential to reach a consumer base of more than 370 million people - a huge and increasingly demanding market.

The Eco-label can apply to both goods and services (not food, drink or pharmaceuticals).

The product groups which have been included so far are:

- washing machines, dishwashers, refrigerators, lightbulbs (all of which are also covered by the EU Energy Label);
- televisions, personal computers, laptops;
- tissue paper products, copying paper;
- textiles, footwear, mattresses;
- laundry detergents, dishwasher detergents, all-purpose cleaners and cleaners for sanitary facilities, hand dishwashing detergents;
- hard floor coverings, indoor paints and varnishes;
- soil improvers and growing media.

Other product groups currently being developed include televisions, furniture, vacuum cleaners, and tourist accommodation, which will be first group to apply to a service sector.

### ***Main stakeholders of the EU Eco-label***

*The Consultation Forum* consists of the principal interest groups. Together with the Competent Bodies, they are full members of the EUEB, whose main role is to draft the Eco-label criteria. The members of the Consultation Forum come from industry and service providers, importers, environmental protection groups and consumer organisations. The role of the Consultation Forum is to ensure a balanced participation of all the relevant interested parties concerned with the different product groups being dealt with by the EUEB.

*The European Union Eco-labelling Board (EUEB)* contributes to the setting and reviewing of eco-label criteria. The Commission has a role as a steward of the scheme, in operating the EUEB secretariat<sup>1</sup>.

Together with the interest groups in the Consultation Forum, the *Competent Bodies* are members of the EUEB. They are independent and neutral organisations responsible for implementing the Community Eco-label award Scheme at national level, including drafting Eco-label criteria, assessing applications and awarding the Eco-label to companies that apply. They play a central role in the operation of the EU Eco-label award Scheme and should be the first point of contact.

### ***How the products are chosen***

Product groups are developed as the result of suggestions from interested parties. Amongst the stakeholders who influence this decision are the national Competent Bodies; European industry representatives; environmental groups; consumer organisations; trade unions; and retailers.

The suitability of the product group to the Eco-label then has to be assessed by a feasibility study with the general aim of deciding whether the label will work for the product group. Market data, surveys, stakeholder consultation, and assessment of performance standards are all undertaken at this stage. If a decision is taken to proceed, a life cycle considerations study is commissioned to develop specific ecological criteria for that product group.

### ***Establishment of criteria***

The European Commission is responsible for establishing and revising the criteria for a specific product group by giving a mandate to a Board composed of Competent Bodies and a Consultation Forum consisting of all relevant interested parties - non-governmental stakeholders such as the European Environmental Bureau, trade associations, and consumer bodies.

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<sup>1</sup> Contact: Mr Andreas Tschulik, Bundesministerium für Umwelt, Stubenbastei 5, A - 1010 Wien, Austria, tel:(+43-1) 515.22.27.09, fax: (+43-1) 515.22.76.49, andreas.tschulik@bmlfuw.gv.at

Criteria are determined on the basis of life cycle assessment (LCA) of the product group. Areas of impact accounted for are: use of natural resources and energy, emissions to air, water and soil, production processes, disposal of waste, recycling and re-use, noise pollution and effects on ecosystems. The product criteria are intended to allow up to 30% of the current market share to qualify for the Eco-label. Products already available to consumers are eligible for the award. About 400 products have now been awarded the label.

Criteria have to be agreed by member states (subject to a qualified majority vote). The criteria set are usually valid for at least three years, and increasingly now for five years, after which they are revised to take into account market changes and technological advances, but they can be revised before the expiry date if circumstances warrant it.

### ***Applying for the Eco-Label***

Each Member State of the EU has designated a Competent Body which is responsible for receiving applications from manufacturers, retailers, service providers or importers for the award of the Eco-label to their products and services. The Competent Body decides on standard application forms with explanatory notes based on the product group definitions and ecological criteria which have been adopted. Each decision to award an Eco-label is in the hands of a Competent Body who in the case of the same product marketed in other countries will consult other Competent Bodies.

A successful applicant is required to sign a contract with the Competent Body for the use of the Flower for the remaining period of validity of the ecological criteria. The Competent Body charges a certain fee for the application and the annual use of the Flower logo.

### ***Phases of Eco-label scheme work***

In practice, the functioning of the Eco-label scheme consists of distinct phases: the preparatory work and establishment of new criteria, the award of the label to products and services and the revision and prolongation of existing criteria. Whereas responsibility for establishing and revising the criteria lies mainly with 1 or 2 so called "Lead" Competent Bodies and the Commission, the award of the label to products is solely a matter for the national Competent Bodies. The decision whether or not to award the label will always be taken by a Competent Body and never by the Commission (Article 7 Awarding the eco-label).

Some wishes of the Member States, the interest groups and the European institutions for greater consistency in the application of the scheme have been drafted into the revision and have led to the new Eco-label Working Plan. Therefore, interest groups such as industry, SMEs, traders, retailers, importers commerce, environmental protection organisations and consumer organisations, trade unions etc are all consulted on the Working Plan and on the choice of future product groups. As decisive stakeholders of the EUEB they are also invited to actively support and promote the scheme.

### **Preparatory work**

The new EUEB procedures foresee a certain amount of preparatory work led by a Competent Body to determine whether the product group falls within the scope of the scheme, notably representing a significant volume of sales, involving a significant environmental impact and equivalent potential for improvement and a significant sales volume.

A feasibility and market study is carried out to collate data on the following aspects: the market structure and the various types of product groups on the Union market, the opinions of all interested parties, the key environmental impacts and key elements relating to the product's fitness for use, an inventory of eco-labels, standards, test methods and studies. Consumer perception, functional differences between types of products and the need for identifying subgroups will be assessed. Generally the interests of the main parties and SMEs concerned and the overall impact are key for the selection of a product group and the development of the scheme.

The *ad hoc* working group is led by a lead Competent Body. Composed of experts from the Member States and representatives of all interested parties concerned, the group evaluates the preparatory phase. On the basis of these results and consultations, the EUEB will request the Commission to initiate the second step.

### **Mandate to develop or revise criteria**

The second step of the preparatory work is establishing a proposal for ecological criteria considering all results from relevant environmental studies. On the basis of mandates drafted by the Commission, the EUEB develops a proposal for eco-label criteria.

Work is carried out by a lead Competent Body. This includes an opinion of all the necessary analyses, investigations and preparatory work which has been carried out. Work on revising criteria will usually take less time than launching new product groups. The lead Competent Body will present the draft proposals to one or more EUEB meetings. The final proposal is also officially presented to the EUEB and discussed with all stakeholders before being voted upon by a Regulatory Committee of national authorities. A formal Commission Decision concludes the adoption procedure.

Also under the new Regulation, the Competent Bodies are responsible for awarding the label. The new scheme has streamlined and facilitated the application procedure (Article 7). The next revision of the scheme is scheduled for before September 2005 (Art. 20). The Commission will review the scheme in the light of the experiences gained during the 3 years of the joint working plan and consult national consumer associations represented in the Consumer Committee.

## Fees

	<b>Minimum</b>	<b>Maximum</b>	<b>Reductions (1)</b>
Application fee covers the costs of processing the application	EUR 300	EUR 1300	25% for SME's and applicants from developing countries
	<b>Minimum</b>	<b>Maximum</b>	<b>Reductions (2)</b>
Annual fee for the use of the label = 0.15% from annual volume of sales of the product within the Community	EUR 500 Per product group per applicant	EUR 25000 Per product group per applicant	25 % for SME's and applicants from developing countries 15% for companies registered under EMAS or certified under ISO 14001 other reductions possible please contact your Competent Body for further details

## Application process

- Depending on the origin of product the respective Competent Body has to be contacted. In case the product originates in the same form in several Member States, then the application may be presented to any Competent Body in one of these Member States. If the product originates outside of the European Community, eg. in a developing country or one of the candidate countries, the application may be submitted to a Competent Body in any one of the Member States in which the product is to be or has been placed on the market.
- The Competent Body will verify whether the product complies with the valid European eco-label criteria published in the Official Journal of the European Communities. It will also verify if the application conforms to the assessment and verification requirements and consult his/her Competent Body colleagues in the EUEB if necessary. Generally, getting the Eco-label logo for each product group will be based on its own environmental criteria (published in the Official Journal of the European Communities). Under the new Flower scheme some of the main reasons why the Flower has been awarded to particular product will appear in the information box on the product.
- In case of successful application, a contract will be concluded covering the terms of use of the Flower label.
- If an application is approved and the Flower label is awarded, there is an annual fee to pay for the use of the label. This part of the fee is calculated, as in the past, as a percentage of the annual volume of sales within the Community of the labelled product. There are reductions for EMAS/ISO 14001 certified companies and some further options for reductions, notably the "first mover" option. All these reductions are cumulative but only up to a total 50% from the threshold i.e., from 25,000 to a maximum 12,500 euro. SME's benefit from some reductions on both the application and annual fee. The products will be found on the website, as well as supported and promoted by the EUEB in all EU and EEA Member States. Competent Bodies also have discretionary powers to give reductions of up to 25% (optional) if the company is a real pioneer in any eco-label product group. To achieve that the company has to be among first three in a given product group.



### ***Some critics on the European eco-label***

A research in Germany and Austria has indicated some drawbacks of the label that prevent its wider use and distribution. One of the most important points of criticism is lack of visibility, which makes the over-all costs for the single enterprise appear disproportionately high in relation to the economic benefit expected from its use. While the application costs of EUR 500 may seem appropriate, the annual fee of 0.15% of the annual sales volume is regarded as rather high. Especially is this true when one accounts for internal preparatory effort and costs, as well as cost of testing the product. Moreover, since neither consumers, nor organisations are sufficiently familiar with the label, the companies are facing additional marketing costs that offset short term benefits of acquiring the label. Some criteria are found impossible to operationalise because they do not relate to the environmental burdens of the specific industrial sector in which the potential applicants are active.

Since part of the criteria is impossible to control for the manufacturer of finished products, and proof of compliance is requested by declarations of honour, the Eco-label loses credibility and reputation especially among professionals within the sector.

As a positive aspect, the fact is to be highlighted that for some individual product groups the criteria do actually refer to existing environmental management systems. In practice, however, interested companies state that this cross-reference is only vaguely expressed, and even if there is an environmental management system in place, the practical validation procedure for the fulfilment of criteria is not made easier for the applicant. Therefore, a more stable connection between ISO 14001 or EMAS is required.

As it was indicated in numerous studies the European Eco-label does not provide sufficient information for a consumer to base his purchase decision on. The criteria are rather concealed and the label itself does not show reliably that the product is more environmentally friendly than another one. The information in addition is not user-friendly and is not always provided in the language of the candidate.

Some SME suppliers consider the label even as a threat since some strong customers might shift additional services and costs arising from the fulfilment of the criteria to the supply chain without adequate economic compensation.

Another drawback of the program is a rather slow application procedure since quite a long time passes till the licence contract is signed. Thus, it is not attractive for the products with short life cycle. Precious time is also lost since it takes several months after publication of new criteria till the user manual is ready, especially difficult is dissemination of information among SME<sup>2</sup>.

### **The Blue Angel**

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<sup>2</sup> Source: <http://www.europa.eu.int/comm/environment/eco-label/index.htm>



The Blue Angel was established in 1977 under the initiative of the German minister of internal affairs and the minister of environment. This eco-label is meant for the products and services that in comparison to other products serving the same needs can be distinguished by environmental friendliness looking at the whole product's life cycle (production, use, end-of-life), as well as careful resource use.

Main participants in the Blue Angel awarding procedure:

*Environmental Label Jury (Jury UZ)* - an independent decision-making body – is composed of 13 voting members representing environmental organisations and consumer associations, trade unions, industry, crafts, local authorities, science, media, church and two federal states each. The latter are nominated for a period of three years by the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety after consultation with the chairman of the Conference of the Ministers of the Environment. The representatives of the federal states change by annual rotation corresponding to the chairmanship of the Conference of the Ministers of the Environment. The meetings of the Environmental Label Jury are also attended by expert representatives of the Federal Ministry for the Environment, Nature Conservation and Nuclear Safety, Umweltbundesamt (Federal Environmental Agency) and RAL (in an advisory capacity). The Jury's meetings are held twice a year, usually in May and December.

*RAL Deutsches Institut für Gütesicherung und Kennzeichnung e.V.* (RAL-German Institute for Quality Assurance and Certification) is a label-awarding agency. RAL organizes, holds (chairs) and prepares the minutes of the expert hearings.

*The Umweltbundesamt* (Federal Environmental Agency) receives and pre-examines the proposals for new eco-labels which may be submitted by everybody<sup>3</sup>.

### ***Application Procedure***

#### **Check of Individual Applications**

If Basic Criteria for Award of the Environmental Label have already been defined for the product group concerned the following procedure applies:

Interested suppliers (such as manufacturers, trading enterprises or service undertakings) apply for use of the "Blue Angel" Environmental Label by filing the complete application papers, including the required compliance verifications in German or English, with the label-awarding agency RAL-Deutsches Institut für Gütesicherung und Kennzeichnung, Siegburger Straße 39, D-53757 Sankt Augustin/Germany<sup>4</sup>. In co-operation with the Federal Environmental Agency and the federal state where the applicant's company has its seat RAL as the label-awarding body checks the individual application for compliance with the requirements laid down in the respective basic criteria for award of the environmental label. If such requirements are fulfilled the label-awarding agency RAL and the supplier will conclude a fixed-term contract on the use of the environmental label authorizing the

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<sup>3</sup> Infoblatt zum Umweltzeichen. Aktuelle Fakten und Daten, Stand: Mai 2001

<sup>4</sup> For further information: Phone: (02241) 1605-0, Fax: (02241) 160511, E-Mail: [umweltzeichen@ral.de](mailto:umweltzeichen@ral.de)

supplier's company to use the "Blue Angel" Environmental Label to promote the product concerned.

**Elaboration of new Basic Criteria for Award of the Environmental Label**

If, so far, no Basic Criteria for Award of the Environmental Label have been defined for a product group the following procedure applies:

- A new proposal should include informative details of the proposed product (good or service). The Federal Environmental Agency collects and examines the new proposals before forwarding them to the Environmental Label Jury which twice a year selects those products from among the great number of proposals which are particularly suited to be promoted by the Environmental Label. They will undergo a closer inspection (test orders). If the Environmental Label Jury gives a test order the Federal Environmental Agency starts to elaborate specialised Basic Criteria for this particular product. RAL - the label-awarding agency - organizes expert hearings in preparation for the Environmental Label Jury's final decision. As a final step the Federal Environmental Agency announces the decision for a new Environmental Label in the media. **Costs**

New proposals for the Environmental Label will be handled without charge by the Federal Environmental Agency. When filing an application for grant of the right to use the Environmental Label the applicant shall pay EURO 153,39\* per application to the awarding body RAL. After a contract for the use of the label is concluded a graded annual contribution must be paid to RAL. The amount of the annual contribution depends on the total annual turnover of the products been labelled with the Environmental Label. At the moment the following grades are valid:

Annual turnover in mln EURO	Annual contribution in EURO*	Contribution category
up 0,26	178,95	1
over 0,26 to 1,02	357,90	2
over 1,02 to 2,56	715,81	3
over 2,56 to 5,11	1.406,05	4
over 5,11	2.034,94	5

\*plus VAT

Those entitled to use the Environmental Label shall pay once per year 20% of the annual contribution fee (see above) as an earmarked support of the PR, marketing and advertising measures for the German Environmental Label. This contribution to the so-called "Advertising Fund" therefore makes up between EURO 35,79 and EURO 407,00 annually.

The Federal Environmental Agency and RAL decide about the use of the fund together. Licence holders will be informed about the use of the funds once per year.

**Use of label**

The "Blue Angel" Environmental Label may only be used on the product itself or for directly advertising of this particular product. Consequently, using the "Blue Angel" for advertising purposes must be strictly product-related. That means the "Blue Angel" must neither be used to advertise the manufacturer as such, nor on the manufacturer's business papers, (e.g. letterhead) nor to advertise other products or the entire range of products of

that particular manufacturer. Corresponding clauses are included in the contract on the use of the environmental label or, in some cases, in the basic criteria for award of the environmental label. Before using the environmental label for advertising purposes the following conditions must be fulfilled:

- The respective individual product must comply with the basic criteria for the product group concerned.
- A contract on the use of the environmental label must be concluded with RAL.
- Prior to the conclusion of such contract the environmental label must neither be used on the product itself, nor for advertising purposes.
- The advertising material must not include any hints at the application filed or the tests in progress<sup>5</sup>.

## The Nordic Swan



The Swan is the official Nordic eco-label, introduced by the Nordic Council of Ministers. In Sweden the Swan label is managed by SIS Eco-labelling, a non-profit organisation, commissioned by the Swedish government and parliament.

SIS Eco-labelling consists of three departments:

- In the criteria department, project managers and product representatives work to develop and review criteria. Product representatives also work on information, marketing and licensing. Gun Nycander ([gun.nycander@sismab.se](mailto:gun.nycander@sismab.se)) is head of the criteria department.
- In the customer department, a number of quality control engineers work on licensing products to use the Swan label. Catharina Daggfelt ([catharina.daggfelt@sismab.se](mailto:catharina.daggfelt@sismab.se)) is in charge of this section.
- The information and PR department has the task of informing about the Swan, via media such as the MiljöMärkt magazine, brochures, events, activities and the website. Tove Engström ([tove.engstrom@sismab.se](mailto:tove.engstrom@sismab.se)) manages the information and PR department.
- There is also a section consisting of an assistant to the MD, a marketing manager, an EU representative and the IT manager.

## Label requirements

A product carrying the Swan label has to meet extremely high environmental standards.

- The Swan takes into consideration the product's impact on the environment from the raw material to waste – i.e. throughout the product's lifecycle.
- The Swan also sets criteria with regard to quality and performance. The product must offer features which are at least as good as other similar products.
- To ensure that a Swan-labelled product is always at the cutting edge from an environmental point-of-view, criteria are revised repeatedly.

Companies applying for a licence to use the Swan label must provide results from independent testing to prove that the criteria have been met. Swedish licences may be registered and used with no further assessment in other Nordic countries.

## Application procedure

Companies can obtain the right to use the Swan label on their product via a licensing process. When applying for a licence, the product in question must belong to one of the

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<sup>5</sup> Source: <http://www.blauer-engel.de/willkommen/willkommen.htm>

product groups for which criteria are available. If criteria are available, it is possible to download the relevant document directly from the criteria list.

If criteria for a product group suitable for an application to Swan are not available, the manufacturer can send a proposal for a new product group.

Companies which perform their manufacturing in Sweden, Norway, Finland or Denmark should apply in their own country. Other companies apply in the country in which the Swan labelled products will mainly be sold.

### **Costs**

When a company applies for a Swan licence a fee of 1640 Euro exclusive of VAT is charged. This fee covers the administration of the application and the control visit to the applicant, which must be carried out before the licence can be allocated.

Once the licence has been granted, there is an annual charge of 0.4 % of the company's turnover for the products carrying the Swan label to which the licence applies.

### **Why this money is paid**

- Development of criteria. Developing the criteria to be met by the product is a precise, time-consuming task which must be performed exactly and to high standards. It takes between one and three years.
- Product checking. When a company applies for a licence, it usually takes three full working weeks to check all the environmental data and, through a factory visit, to check the production process.
- General information. PR campaigns, the magazine, Miljömärkt, and so on, consumers and purchaser are informed about the implications of the market and are given an advice<sup>6</sup>.

### **Group for Energy Efficient Appliances (GEEA) – Energy Label**



This label indicates that the appliance has a high energy-efficiency profile only reached by approximately 25% of the most efficient models on the market ( in case of Energy Saving Devices, this percentage can increase to 100%). The label is functioning in the Netherlands, Germany, Denmark, Austria, Switzerland, Sweden, Finland and France. It offers common definition schemes, common test methods, common criteria, voluntary co-operation without any obligation for industry.

### **Registration procedure**

Each manufacturer or importer who wants his models to be registered in the GEEA database for any voluntary informative activity in one or more GEEA member countries can fill in the registration form and fax it to the National Registration Office. There is a National Registration Office in each member country where manufacturers can apply for registration package and receive answers to any arising questions.

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<sup>6</sup> Source: <http://www.svanen.nu/>

The registration form comprises the following documents:

- Description of how to register (present paper);
- Application form for the specific product class;
- Test method for the specific product class;
- General Rules (including rules on The Use of the Label);
- Contact addresses of all GEEA members and all National Registration Offices<sup>7</sup>.

After confirmation of model registration, the manufacturer is able to use the label.

### **Criteria**

The models to be registered have to meet the criteria regularly set and adapted by the GEEA in co-operation with industry. The measurement is performed by the manufacturer or importer (by self declaration). The GEEA or other bodies may perform tests on registered products.

### **Costs**

Registration and participation in national promotion activities are free of charge. The information and promotional material used in the National Promotion Activities should be offered at cost price.

### **Rules**

If a manufacturer or importer has registered models which do not meet the criteria they will be requested to remove these models from the database. Otherwise the company may be excluded from further participation.

### **Principles of participation**

The GEEA maintains updates and publishes a database with registered model and its power consumption, unless the manufacturer indicates otherwise. The application for registration can be done prior launching a model in the market in order to give the manufacturer enough time to prepare promotional activities. The criteria used, will be the criteria that are valuable at the moment the model becomes available in the market in one of the GEEA countries.

The energy and/or power consumption, as well as other data related to the label criteria are based on self-declaration by the manufacturer or importer. The energy and/or power consumption has to be measured according to the testing methods approved by the GEEA and referred to on the application forms. The GEEA may perform sample tests.

The label may be used on promotion materials before the actual introduction of the product on the market, however, it is prohibited to use the label for general company promotion<sup>8</sup>.

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<sup>7</sup> Contact: Energieverwertungsagentur (E.V.A.), Linke Wienzeile 18, A-1060 Wien, Austria, [www.eva.wsr.ac.at](http://www.eva.wsr.ac.at), Herbert Ritter, Tel: +43 1586152435, Fax: +43 15869488, email: [ritter@eva.wsr.ac.at](mailto:ritter@eva.wsr.ac.at)

<sup>8</sup> Source: <http://www.efficient-appliances.org/gea.htm>

## The European Energy Star Program



The ENERGY STAR Programme has been introduced officially in the European Community through two legislative acts: the Council Decision concerning the conclusion on behalf of the European Community of the Agreement between the Government of the United States of America and the European Community on the coordination of energy-efficient labelling programs for office equipment<sup>1</sup>; and the Regulation of the European Parliament and Council on a Community energy efficiency labelling programme for office equipment<sup>9</sup>.

The European Community ENERGY STAR Programme is co-ordinated with the US ENERGY STAR Programme for office equipment, by sharing the same technical specifications and test methods for qualifying products. However while in the US the ENERGY STAR Programme covers a wide range of products, in the European Community the ENERGY STAR Programme has been introduced only for office equipment.

In the European Community the Management Entity for the European Community ENERGY STAR Programme, is the European Commission (in the US the Energy Star programme is managed by the US EPA). The European Commission is assisted by National Representatives, nominated by each Member States, which are carrying out some tasks related to the promotion and monitoring of the European Community ENERGY STAR Programme. The European Commission is also assisted by an advisory body the European Community Energy Star Board (ECESB), the role of the ECESB is described in the above mentioned Regulation.

### ***Registration procedure***

In order to apply for the ENERGY STAR Programme, a Registration Form addressed to the European Commission has to be submitted, whereby the company in question commits itself to fulfil the ENERGY STAR Programme requirements, as indicated in the Registration Form. The decision to authorise an applicant to become a programme participant (Partner) will be taken by the Commission, after verifying that the applicant has agreed to comply with the Guidelines for Proper Use of the ENERGY STAR Name and International Logo.

Once a Partner has received the confirmation by the Commission that his Registration application has been accepted, he may use the ENERGY STAR logo to identify qualified products that have been tested in their own facilities or by an independent test laboratory and that meet the technical specifications as described in the ENERGY STAR Product Specifications. Each Programme partner may self-certify product qualification. In any case

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<sup>9</sup> Contact: Paula Abreu Marques, European Commission, Office: DM 24, 4/121, B-1049 Brussels, E-Mail: paula.abreu-marques@cec.eu.int, Tel.: +32-2-295 3805, Fax: +32-2-296 4254

they have to follow the Guidelines for Proper Use of the ENERGY STAR Name and International Logo.

### **Partners' commitment**

For each model labelled the applicant has to send to the European Commission Product Information Form, which should include complete information on the features and options installed on tested configurations. Product testing and certification is done through self-assessment. The applicants have to provide the European Commission with an updated list of ENERGY STAR qualifying office equipment models on annual basis.

Labelling of ENERGY STAR qualified office equipment should be clear and consistent. The label have to be placed on the top/front of the product, on the product packaging, in product literature, and on the manufacturer's Internet site where information about ENERGY STAR qualified models is displayed. The applicants should also provide the Commission with the unit shipment data or other market indicators to assist the market penetration of the label. A responsible company representative has to be appointed as a liaison with the European Commission for the ENERGY STAR Program and to notify European Commission within one month of any change in liaison responsibility.

The European Commission reserves the right to change the ENERGY STAR technical specifications should technological and/or market changes affect its usefulness to consumers, industry, or the environment<sup>10</sup>.

### **TCO**

The Swedish Confederation of Professional Employees (TCO) is an environmentally labelling scheme and authority for TCO1992, TCO'95, and TCO'99 (95 being phased out and replaced by 99). The label addresses ergonomics, emissions (radiation and energy use and noise), and several other environmental attributes for computers, monitors, and printers. TCO has about 50% market penetration world wide, 100% in northern Europe, and about 35% in US. According to a US representative for TCO, the program is strongest for monitors, and there are too few qualifying computers and printers to be useful in the US. All qualifying products tend to be "high end" products.

TCO has looked at life cycle analysis, but their main focus has been than on safe environments for workers. They try to work and harmonize with other standards bodies/organizations (such as ISO, EnergyStar) on other environmental aspects, such as energy and life cycle.

Recently a new label on environmental and quality performance of mobile phones (TCO'01) was introduced. The new standard covers areas emissions, ecology and ergonomics. In this first version of the labelling emission area (towards mobile phones with

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<sup>10</sup> Source: <http://energyefficiency.jrc.cec.eu.int/energystar/>



lower radiation) is in focus. In short, this new standard requires that the phone emits low radiation doses, is easy to handle, and contains no materials injurious to the environment<sup>11</sup>.

### **TCO'95**



The basic principle of TCO '95 is for a user to have a better work environment. PCs should be adapted to users. But more than the work environment is affected by which PC one chooses; this also affects the external environment. TCO '95 demands that the product and the production process are environmentally adapted so that the materials can easily be sorted and recycled. It also makes tough demands on energy efficiency. Environmental labelling in accordance with TCO '95 improves the work environment while reducing the burden on our natural environment.

TCO'95 is based on TCO1992; its demands regarding low-radiation and automatic energy-savings remain at the same level of strictness. TCO'95 put in addition the same demands on the keyboard and system unit. The monitor, keyboard and system unit can be approved individually or together as a PC.

#### **Stricter requirements**

The most important aspect is the set of strict requirements for ergonomics. TCO'95 is based on European and international standards, but has tighter levels in important areas such as flicker-free screen pictures, screen brightness and linearity. Functional demands are made for height adjustability, tilting and rotation of the monitor, and also regarding the correct angle and height of the keyboard. This simplifies the planning of work-places for users of PC equipment.

#### **Environmental care**

The environmental requirements in TCO'95 adhere to the principle that production, use and handling of the equipment must be as free as possible from pollution and careful with use of energy. The use of ozone-destructive substances is forbidden during production of the equipment and its packaging. This is stricter than national legislation according to the Montreal protocol, which regulates discharge of climatic gases. Products must not contain poisonous heavy metals: mercury and cadmium, currently found in many picture tubes and batteries. Flame-preventive substances based on environmentally poisonous bromides and chlorides are currently very common in plastic parts of the products. These can be harmful to both people and animals if they are released into the environment. TCO'95 has therefore forbidden such substances in the plastic casing of the products. Products must be designed in such a way as to allow the different materials they consist of to be easily taken apart; welding, gluing and alloys are not permitted. All plastic parts, representing a large part of the computer screen, must be marked with a material code to ease recirculation processes. TCO'95 is intended to be replaced by TCO'99.

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<sup>11</sup> Contact: Linnégatan 14, SE-114 94 Stockholm, Sweden, Telephone + 46 (0)8 782 92 00, Fax + 46 (0)8 782 92 07, E-mail: [development@tco.se](mailto:development@tco.se)

## TCO'99



TCO'99 is a qualitative improvement of TCO'95 to keep in pace with the rapid development within in the IT-world and the use of computers in the working life. TCO'99 represents a challenge for manufacturers who want their equipment to be in front of the development and have documented that they do so. No other standards or requirements exist that demands so much from IT-equipment, yet TCO'99 is documented to be fully achievable from many of the best of the manufacturers in the world.

The test methods of TCO'99 are stricter and more realistic to match professional use of PCs in modern office environment. Monitors are tested at predetermined, higher resolutions, 85 Hz refresh frequency and positive image for ergonomics as well as for emission characteristics<sup>12</sup>.

### Testing

Nemko is approved by TCO Development to perform all tests and verifications necessary to get TCO'99 Certification for PCs; Monitors (LCD and CRT) and System Units. Manufacturers can send all application documents to Nemko, who provides test reports and verification letters necessary for certification by TCO Development.

Nemko offers the following tests: Visual Ergonomics, Emission, Energy Saving, Verification of Ecological documentation, Acoustic noise (system units and monitors with fan), Electrical safety, EMC. Normal lead time is 1-2 weeks from reception of units to issuing of the reports.

### Fees

	TCO'95 (in EUR)	TCO'99 (in EUR)
Monitor	3804	3804
System unit	2717	2717
Keyboard	1086	1086
Monitor and system unit built together or notebook/laptop	3804	3804

The certification fee finances administration costs, TCO Development inspection of environmentally labelled products and the development work. Additional fee for adding or changing a component in already certified product is 217 EUR. Although the certification year and also the following year are free from annual fees, maintenance of certification validity is subject to annual payment of 543 EUR<sup>13</sup>.

<sup>12</sup> Requirements for both labels can be found in "TCO'95/99 label requirements.doc"

<sup>13</sup> Source: [http://www.nemko.no/s\\_environmental/tco\\_info.html](http://www.nemko.no/s_environmental/tco_info.html), [www.tcodevelopment.com](http://www.tcodevelopment.com)

## **Milieukeur**

Milieukeur is developed and managed by the Stichting Milieukeur Netherlands (the Eco-label Foundation), which was founded in 1992, on the initiative of the Ministry of Housing, Spatial Planning and the Environment and the Ministry of Economic Affairs<sup>14</sup>. Since 1995 when a start was made on the development of environment criteria for foodstuffs the Ministry of Agriculture, Nature Management and Fisheries has also been involved in the Stichting Milieukeur. Milieukeur enjoys a broad societal base through the Board of Experts which represents government, manufacturers, consumers, and retail and environment organisations. This Board plays an essential role in defining Milieukeur criteria. To safeguard integrity the Board of Experts does not test products itself. Instead, product testing is in the care of independent certifying organisations recognised by the Board of Acknowledgement. Levels of potential damage to the eco-system are different for every product, so the Stichting Milieukeur formulates individual Milieukeur criteria for every product group. Any product can qualify for the Milieukeur, both for the private and the business market.

### ***Certification procedure***

Before certifying a product with Milieukeur label whole life cycle from raw material extraction to production to use and waste disposal is proved, and the environmental burden of every phase of the product's life is mapped. Milieukeur products must naturally be of good quality. To keep the criteria current, they are reviewed every two to five years by the Stichting Milieukeur and adjusted if necessary.

Environment criteria have been formulated and are still being developed for a large number of product groups. Manufacturers for whose products the criteria are already developed can have them tested by a qualified independent certifying organisation. The product is then assessed on the basis of a certification outline, in which all the criteria for the product group in question are set down. If a product meets all of the criteria, it will be awarded the Milieukeur.

It is possible to submit a request to the Stichting Milieukeur to develop certification outlines for product groups which have not yet been covered. It is necessary to justify the product's environmental benefits and its chances on the market however. When the Milieukeur is awarded to a product, care must be exercised to ensure that the reliability of the hallmark is safeguarded. That is why the Stichting Milieukeur has an independent Board of Experts at its disposal to deal with applications and to supervise the development of Milieukeur criteria. If the Board of Experts assesses the application positively, a short feasibility study will be conducted. If the results of this study are also positive, another study will be conducted that must eventually result in the development of Milieukeur criteria. Thorough discussions with the producers and any other parties involved are necessary.

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<sup>14</sup> Contact: The Stichting Milieukeur, Eisenhowerlaan 150, PO Box 17186, NL-2502 CD The Hague, Telephone: +31 (0)70 358 6300, Fax: +31 (0)70 350 2517, Email: milieukeur@milieukeur.nl

### **Costs**

The costs for drawing up a certification outline for a product group are taken care of by the Stichting Milieukeur. (A contribution is necessary for the development of Milieukeur criteria for foodstuffs however.) If a manufacturer wishes to obtain the Milieukeur for his products, there will be costs involved. The application costs of EUR 450 are non-recurring. There are also initial and annual testing costs which are variable and dependent on the product group. Once the product has been awarded the Milieukeur, it is permitted to depict the Milieukeur logo on the product and/or packaging. The manufacturer must transfer 0.15 per cent of the product's turnover to the Stichting Milieukeur for the right to use the logo. This turnover is based on sales on the Dutch market at factory prices. A minimum of EUR 350 and a maximum of EUR 13.600 per year have been set.

### **Benefits for the applicants**

The Stichting Milieukeur sets up a large-scale campaign every year to advertise the logo and its significance to a large audience. This is usually achieved through television and/or radio commercials, advertisements and sometimes posters in bus shelters and other communication means. Throughout the year the Stichting Milieukeur secures free publicity to a wide range of publics. A great deal of attention is generated when a new product is awarded the Milieukeur. Prominent Dutch personalities are regularly invited to present the Milieukeur certificate and this attracts the necessary publicity.

### **European Eco-label**

The Stichting Milieukeur is the qualified organisation in the Netherlands for the distribution of the European Eco-label. The Stichting Milieukeur advises the Dutch government on its standpoints on the European Eco-label criteria. In principle, Milieukeur criteria are not developed for product groups for which a European Eco-label already exists. However, the Stichting Milieukeur can formulate criteria for product groups for which the European criteria are not considered satisfactory enough in relation to Dutch environment policy<sup>15</sup>.

### **Das "Österreichische Umweltzeichen"**



The Austrian Eco-label was established in 1990 by the Ministry of environment, youth, and family. The products that are subject to receiving the Austrian eco-label have to be tested through the whole life cycle. Tests are based on evaluation of use of materials and energy, toxicity, emissions, recycling and reuse strategies, packaging, marketing and transport, and quality, security, possibility to repair and lifetime.

### ***Development of criteria***

The responsibility for development of product criteria lies upon ministries for environment, tourism, school- and educational establishments, association of consumer information (VKI), and Technical Office HAUER Environmental Economics. For this purpose two

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<sup>15</sup> Source: <http://www.milieukeur.nl/>

additional bodies with participation of different organisations from environmental, economics and consumer protection fields, as well as independent experts were established by Advisory Board Eco-label and Technical Committee.

### **Advisory Board Eco-label**

The main tasks of the Advisory Board are:

- Determination of product groups and services for which criteria should be established
- Specification of general requirements for criteria development
- Discussion and decision on proposed criteria
- Denial or acceptance of the criteria
- Establishment of the Technical Committee
  - For every new product group there is a Technical Committee formed under the presidency of the Association of Consumer Information. It is formed out of experts in field environment, economics and consumer protection. The main task of the committee is to discuss the suggestions on criteria and to develop a criteria draft.

After developing a criteria draft, it has to be approved by the Advisory Board and finally examined by the Environmental Ministry. In case of a positive examination, the draft is approved by the minister and published. The criteria are valid for three years, though due to technical innovations they can be revised earlier.

### **Application**

Every product produced in or imported to Austria can be awarded the Austrian Eco-label if the company producing it is situated in any of European member states or ones belonging to European Economic Area. The applications should be submitted to Association of Consumer Information for evaluation. After necessary tests the product is awarded the eco-label.

The following documents are necessary for application:

- Name and address of the company
- Copy of a trade authorisation
- Description of the product or services for which the eco-label should be awarded
- Description of the way the eco-label will be placed on the product
- Documents that prove that a product/service complies with technical norms and standards
- A proof that the production process complies with regulations of the country where it is produced
- A certificate stating that the product complies with the product group criteria. The certification should be issued by qualified testing body.

### **Costs**

Annual turnover in EUR	Annual fee in EUR
< 145.000	145
145.000 – 725.000	580
725.000 – 2,180.000	1160
2,180.000 – 3,630.000	1450
>3,630.000	1810

25% of the annual fee is submitted by the applicant for the purposes of processing of the papers<sup>16</sup>.

### **Position of European Information and Communication Technology Association on environmental labels**

Manufacturer environmental self-declarations are an efficient method for communicating environmental information to concerned parties. EICTA supports the use of voluntary environmental self-declarations such as developed by ECMA and NITO as a mechanism to provide information to concerned parties. We do not support the proposal to increase EU funding for national ISO Type I eco-labelling programs with differing criteria and time intensive and costly application processes. As an alternative to multiple national programs, we would prefer open and transparent efforts to improve the EU Ecoflower label and to promote its use as the single Type I label used in Europe. We do not believe that ISO Type III eco-labels are an appropriate communications tool for complicated products such as IT equipment. The development of life cycle inventory data on a single component of a product can take many months; the collection of similar information for more complex machines such as personal computers could take a year. In an industry where products such as personal computers are redesigned twice annually, this type of communication would essentially be obsolete upon publication.

### **ECMA**

The European Computer Manufacturers Association (ECMA) is an international, industry association founded in 1961 and dedicated to the standardization of information and communication systems. Members include major computer software and hardware manufacturers such as Alcatel, Ericsson, Lucent Technologies, Siemens, Apple, Fujitsu/ICL, Microsoft, Sony, Avaya, Hewlett-Packard, Philips, etc.

ECMA's environmental efforts reside primarily with Technical Committee 38, Product-Related Environmental Attributes. The main goal of TC 38 is to identify the environmental attributes in respect to information and communication technology and consumer electronics products. Whole life cycle of the product is considered from the conception to end-of-life treatment.

ECMA produces Technical Report TR/70, *Product-Related Environmental Attributes* (can be downloaded from the web site). TR/70 is a voluntary declaration form ("Eco-declaration"), which incorporates the following criteria:

- Product information/description (product and manufacturer identification)
- Extension of product lifetime (repair, warranty, upgradability/extendibility)
- Power consumption in several modes
- Radio frequency emissions (EMC)
- ELF/VLF emissions (only visual display units)
- Acoustical noise emissions
- Chemical emissions\*
- Materials (declaration of not used suspiciously materials)

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<sup>16</sup> Source: <http://www.umweltzeichen.at/>

- Disassembly (declaration of design features supporting easy disassembly)
- Batteries (types, weight, disposal)
- Product packaging (types, weight, take-back)
- Take-back information (for product and consumables)
- Documentation (paper type and bleaching method)

ECMA TR/70 Norms lay down necessary process of complying with the declaration, as well as minimal information requirements needed. Compliance is voluntary and is not tested by independent authority; the manufacturers are free to adopt their own design for the TR/70 pattern. Currently new norms are under development that will deal with measurement of chemical emissions from the electronic products and will be added to the Technical Report. Covered products include camcorders, copiers, printers, stereos, mobile phones, monitors, notebooks, PCs, PDAs, servers, single use cameras (SUCs), TVs (CRTs), and VCRs<sup>17</sup>.

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<sup>17</sup> An Overview of Eco-labels and Product Certifications for Computers, Monitors and Printers. Draft of August 27, 2001, Prepared by O'Brien and Company.