

Self-Declarations of Environmental Product Attributes according to ECMA TR/70 2nd edition

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Abstract

Customers are requesting more and more environmental information on products. As a result, large customers and consumer organizations have already developed a wide variety of different questionnaires and more will appear in the future. In addition there are an increasing number of Eco-labels that could be placed on products whereas industry is increasingly aiming for standardized environmental -declarations. One possible approach is a declaration of environmental product attributes according to the document ECMA TR/70. This technical report identifies and describes environmental attributes and associated measurement methods, related to the use of information and communication technology and consumer electronic products, according to known standards, guidelines and currently accepted practices. It is applicable internationally to any type of electrical or electronic product and as such it could contribute to comparable and standardized environmental product declarations. This paper introduces the second edition of ECMA TR/70 that was approved in June 1999.

1 Introduction

Manufacturers are facing increased requests for environmental information from customers, retailers and non-governmental organizations. Often these stake-

holders use their own or national questionnaires that are not based on standardized references. In addition, the number of Ecolabels (**Fig. 1**) increases year by year. Industry believes such variety confuses the customer especially as he might have no idea which criteria lie behind a certain label.

Therefore within the ECMA Technical Committee (TC38), industry developed “Product related environmental attributes”, the technical report ECMA TR/70, which is an internationally accepted (standardized) document reporting common attributes that are assessed with standardized measurement methods.

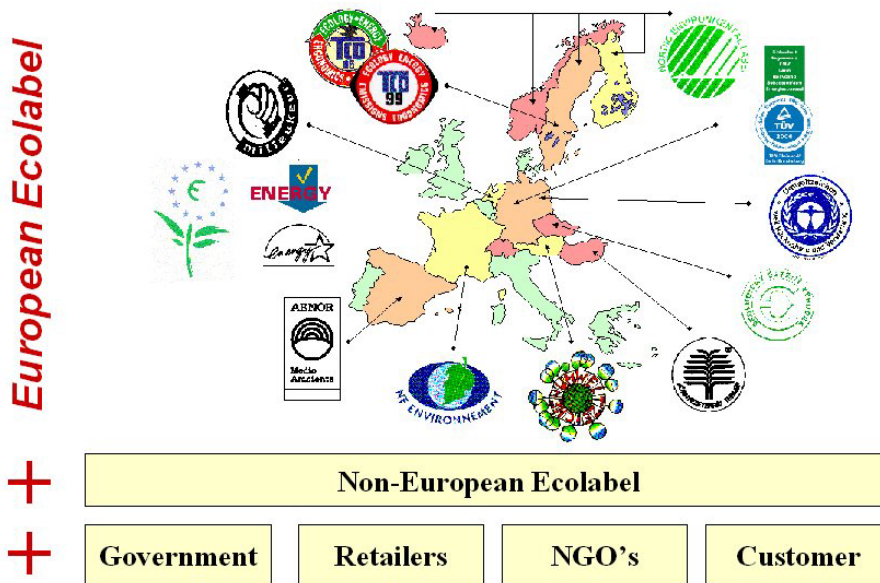


Fig. 1 Requests for Environmental Information to Manufacturers

2 History

The ECMA Technical Committee (TC38) “Product related environmental attributes” was set up in December 1995. Members are American, European as well as Japanese companies from information and communication technology and consumer electronic industries. Within two years, TC38 produced the first edition of ECMA TR/70.

The second edition, considering comments received from users and user organizations, was approved in June 1999. One major change is to split the declaration under two separate subjects:

- Product related environmental attributes (ECMA TR/70, June 1999)
- Recycling relevant data (new, separate TR, in progress)

This split addresses comments received by ECMA that interested parties fall into two separate group’s users/customers and recycling companies.

Furthermore, the second edition extended the criteria covered (e.g. information on batteries, packaging,

documentation and take-back schemes) and sample declaration forms (14 instead of 4 products).

3 Structure of the Report

The report has 5 main chapters and 2 annexes.

The section “References” contains standards, guidelines and directives etc., which are referred directly to in TR/70. All relevant international standards are listed in the references.

Furthermore, definitions and acronyms are given in chapters 3 and 4 to ensure a clear and common understanding of the terms used throughout the report.

Chapter 5 is the main part of the report. It defines all attributes that must or may be declared.

Annex A provides some sample declarations in order to assist the potential user. Declarations for 14 different information and communication technology and consumer electronic products are given. Furthermore, Annex A contains a table with an overview for selected product categories (**Fig. 2**) that is intended to

Declaration item and clause	Cam-corder	Copier/Printer	Hi-fi System	Mobile phone	Monitor	Note-book	PC	P.D.A	Server	S.U.C	TV (CRT)	VCR
Product information/description - 5.1	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Voluntary environmental programme	V	V	V	V	V	V	V	V	V	V	V	V
Extension of product lifetime - 5.2												
• Service availability	Y	Y	Y	Y	Y	Y	Y	Y	Y	N/A	Y	Y
• Upgradability	N/A	V	V	V	N/A	Y	Y	Y	Y	N/A	*V	N/A
• Extensibility	V	V	V	V	N/A	Y	Y	Y	Y	N/A	*V	N/A
Power consumption - 5.3												
• Data for applicable modes	Y	Y	Y	Y	Y	Y	Y	Y	V	N/A	Y	Y
Radio frequency emissions - 5.4	V	V	V	V	V	V	V	V	V	N/A	V	V
ELF/VLF emissions from VDUs - 5.5	N/A	N/A	N/A	N/A	V (*)	V	N/A	N/A	N/A	N/A	N/A	N/A
Acoustical noise emissions - 5.6	V	Y	V	N/A	**N/A	Y	Y	N/A	Y	N/A	N/A	V
Chemical emissions*** - 5.7	***	V	***	***	***	***	***	***	***	***	***	***
Materials - 5.8	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Disassembly - 5.9	V	Y	V	V	Y	Y	Y	Y	Y	Y	V	V
Batteries - 5.10	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Packaging - 5.11	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Other take-back information - 5.12	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Documentation - 5.13	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y

*: V applies to digital and Internet TV only, N/A applies to all other types of TV **: V if equipped with a fan ***: A specific task group is working on the subject

Attributes which are not applicable or where nothing can be declared should be left out.

The declaration items indicated with

- Y shall be included in a product declaration according to ECMA TR/70
- N/A not applicable
- V may be included in a product declaration according to ECMA TR/70
- (*) N/A to a LCD monitor

Fig. 2 Overview of attributes to be declared for selected product categories

help the applicant decide which attributes shall be declared for which product.

Finally, Annex B lists standards, guidelines and directives that are linked to the subject which were considered during the compilation process of the report at the time of publication, but should not be considered as a complete reference.

4 Covered Products

ECMA TR/70 is designed to be for the declaration of environmental attributes of any electronic product.

At present, the sample declaration forms only cover major products coming from information and communication technology and consumer electronics. However, if a product is not listed in the Annex A (**Fig. 2**), an Eco-declaration according to the TR can still be created.

In order to cover general product categories the ECMA Technical Committee 38 always welcomes proposals for sample declarations.

5 Attributes to be declared

Chapter 5 defines which attributes can be declared, since not every attribute is applicable for all products. Those that shall be reported can be decided by the applicant using the recommendations in the product overview table found in Annex A (**Fig. 2**).

Information on the following topics shall be given:

- 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*)
- 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*)

* - An ECMA TC 38 subgroup just published a draft standard for comments in order to standardize the measurement of chemical emissions.

Furthermore, the applicant can always add information he wants to supply to the customer. A declaration is not limited to the scope of TR/70. ECMA TR/70 provides the framework such that Eco-declarations from different manufacturers are comparable. This applies not only to the reported attributes, but also to the information provided for a single attribute (e.g. additionally avoided substances).

6 Use of ECMA TR/70

The use of Eco-declarations according to ECMA TR/70 is voluntary and is not restricted. The standardized document can be used for several purposes e.g:

6.1 Answering customer questions

Manufacturers often face a general need for environmental information. Providing a suppliers-declaration compiled according to an internationally accepted technical report is often welcomed by the customer. ECMA TR/70 is designed to cover most customer requirements.

6.2 Attachment to a tender

As many customers are requesting more and more environmental information, it would be more pro-active to provide this information with the technical specification.

6.3 Publication on Internet

The Internet is an ideal tool to spread information to interested parties. By downloading these Eco-declarations the customer could fulfil his specific needs.

6.4 Provided with the product

In order to reach every user, an environmental self-declaration could be included with the product documentation.

7 Advantages

Main advantages of ECMA TR/70 in comparison with other communication tools for environmental product attributes are seen as follows:

- voluntary use
- common and comparable reporting format
- no “Black & White” decision as for Eco-labels (the product must not comply to fixed requirements but the declaration reports the product performance)
- document is flexible and adaptable to different product categories
- the content of the document can be extended individually with additional environmental product information
- only the product declaration form has to be compiled (no third party is involved)
- no license fee
- product declaration forms can be published in different ways and used for various purposes

8 Public Attention

Several companies released Eco-declarations according to ECMA TR/70. They are published on the Internet, delivered with product or supplied directly to interested customers.

The European Union Eco-label for PC and notebooks and the German Eco-label TÜV Eco Circle 2000 are requesting a suppliers-declaration according to ECMA TR/70.

The Swedish IT Organization (SITO), the Swedish Supplier's Union (SRL – for consumer products) and the Swedish Mobile Phone Association (MTB) compiled their own Eco-declarations based on ECMA TR/70.

9 Revisions

The ECMA Technical Committee 38 welcomes comments on the current version of TR/70. The committee is always striving to adapt the report to the most up to date customer requirements for environmental information.

However, a change of the text is only possible with agreement by the [ECMA TC 38](#) and with the approval by the ECMA General Assembly.

10 Conclusions

ECMA TR/70 provides a harmonized worldwide approach to declare environmental product attributes.

It is voluntary, easy to use and has many potential applications (helps to cover many customer requests).

Manufacturers and suppliers should take the opportunity to support this standardized reporting of environmental attributes by using ECMA TR/70. Procurement organizations should also request them as a part of their purchasing criteria.

Finally, ECMA TR/70 can be obtained free of charge via ECMA's Internet address ecma-international.org where it can be downloaded as a .pdf file or alternatively ordered as hardcopy direct from ECMA.

11 Acknowledgment

We would like to thank the ECMA organization and the involved member companies.

12 Literature

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