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**Metoda za zagotavljanje informacij o vidikih učinkovitosti izdelkov, povezanih z energijo**

Methods for providing information relating to material efficiency aspects of energy-related products

Verfahren zur Bereitstellung von Informationen über Materialeffizienzaspekte energieverbrauchsrelevanter Produkte

Méthode de communication des informations sur l'utilisation rationnelle des matériaux dans les produits liés à l'énergie

[SIST EN 45559:2019](https://standards.iteh.ai/catalog/standards/sist/0310fce0-3c88-4fa4-833b-9563865ba108/sist-en-45559-2019)

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## Methods for providing information relating to material efficiency aspects of energy-related products

Méthode de communication des informations sur l'utilisation  
rationnelle des matériaux dans les produits liés à l'énergie

Verfahren zur Bereitstellung von Informationen über  
Materialeffizienzaspekte energieverbrauchsrelevanter  
Produkte

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## European foreword

This document [EN 45559:2019] has been prepared by CEN/CLC/JTC 10 “Energy-related Products - Material Efficiency Aspects for Ecodesign”.

The following dates are fixed:

- latest date by which this document has to be implemented at national level by publication of an identical national standard or by endorsement (dop) 2020-02-06
- latest date by which the national standards conflicting with this document have to be withdrawn (dow) 2022-02-06

This document has been prepared under a standardization request given to CEN and CENELEC by the European Commission and the European Free Trade Association.

Attention is drawn to the possibility that some of the elements of this document may be the subject of patent rights. CENELEC shall not be held responsible for identifying any or all such patent rights.

The dual logo CEN-CENELEC standardization deliverables, in the numerical range of 45550 – 45559, have been developed under standardization request M/543 of the European Commission and are intended to potentially apply to any product within the scope of the Directive 2009/125/EC concerning energy-related products (ErP).

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Topics covered in the above standardization request are linked to the following material efficiency aspects:

- [SIST EN 45559:2019](https://standards.iteh.ai/catalog/standards/sist/0310fce0-3c88-4fa4-833b-9563865ba108/sist-en-45559-2019)  
<https://standards.iteh.ai/catalog/standards/sist/0310fce0-3c88-4fa4-833b-9563865ba108/sist-en-45559-2019>
- a) Extending product lifetime;
  - b) Ability to reuse components or recycle materials from products at end-of-life;
  - c) Use of reused components and/or recycled materials in products.

These standards are general in nature and describe or define fundamental principles, concepts, terminology or technical characteristics. They can be cited together with other product publications, e.g. developed by product technical committees.

This document is intended to be used by technical committees when producing horizontal, generic, and product-specific, or product-group, publications.

## Introduction

This document describes a general method for the communication of material efficiency (ME) aspects of energy-related products (ErP). It is intended to be used when developing a communication strategy in horizontal, generic, product-specific, or product-group publications.

This document relates to the standards in the numerical range of “EN 45552 – 45558” developed under the standardization request M/543 [1]. While the other standards will provide methods to assess or measure specific ME topics, this document focuses on the communication of the various topic-related content.

Legislation can require that ME information is provided to specific intended audience and is verifiable, accurate, relevant and not misleading. Therefore, this document describes how intended audiences (end-users, professionals or market surveillance authorities) are taken into account, as well as the means of communication and media for providing the ME information.

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## 1 Scope

This document establishes a common method for the provision of information related to the material efficiency (ME) aspects of ErP. It has two key intentions:

- it requires generic or horizontal ME topic publications to include a clause with an overview of the specific topic-related content to be reported; and
- it includes a generic method on how to create a communication strategy which will be used when preparing product-specific, or product-group, publications.

NOTE Through-out this document, the term “product” refers to “a specific product or a group of products”.

## 2 Normative references

There are no normative references in this document.

## 3 Terms, definitions and definitions

### 3.1 Terms and definitions

There are no terms and definitions listed in this document.

ISO and IEC maintain terminological databases for use in standardization at the following addresses:

- IEC Electropedia: available at <http://www.electropedia.org/>
- ISO Online browsing platform: available at <http://www.iso.org/obp>

NOTE See CEN-CLC TR 45550 [2] for definitions related to ME of ErP.

### 3.2 Abbreviations

CRM	Critical Raw Material
EEE	Electrical and Electronic Equipment
ErP	Energy-related Product
ME	Material Efficiency
NFC	Near Field Communication
QR code	Quick Response code
RFID	Radio-Frequency Identification Device
WEEE	Waste Electrical and Electronic Equipment

## 4 Method for providing information on ME

### 4.1 General

When planning the delivery of information on ME topics, added clarity and consistency can be gained by breaking down that information, namely:

- The specific ME topic and the related content;
- The target audiences that are likely to receive the information and the corresponding data sensitivity levels;
- The means of communication and media best suited to deliver the information.

This concept is depicted in Figure 1. The annexes provide additional or complementary information, as follows:

- Annex A provides an example of a ME communication matrix for a specific product;
- Annex B provides considerations relating to the use of asset tracking technologies for communication purposes, for example by providing a means of linking from a label on a product to online product information (e.g. RFID);
- Annex C provides an example of how ME information could be reported by product publications.

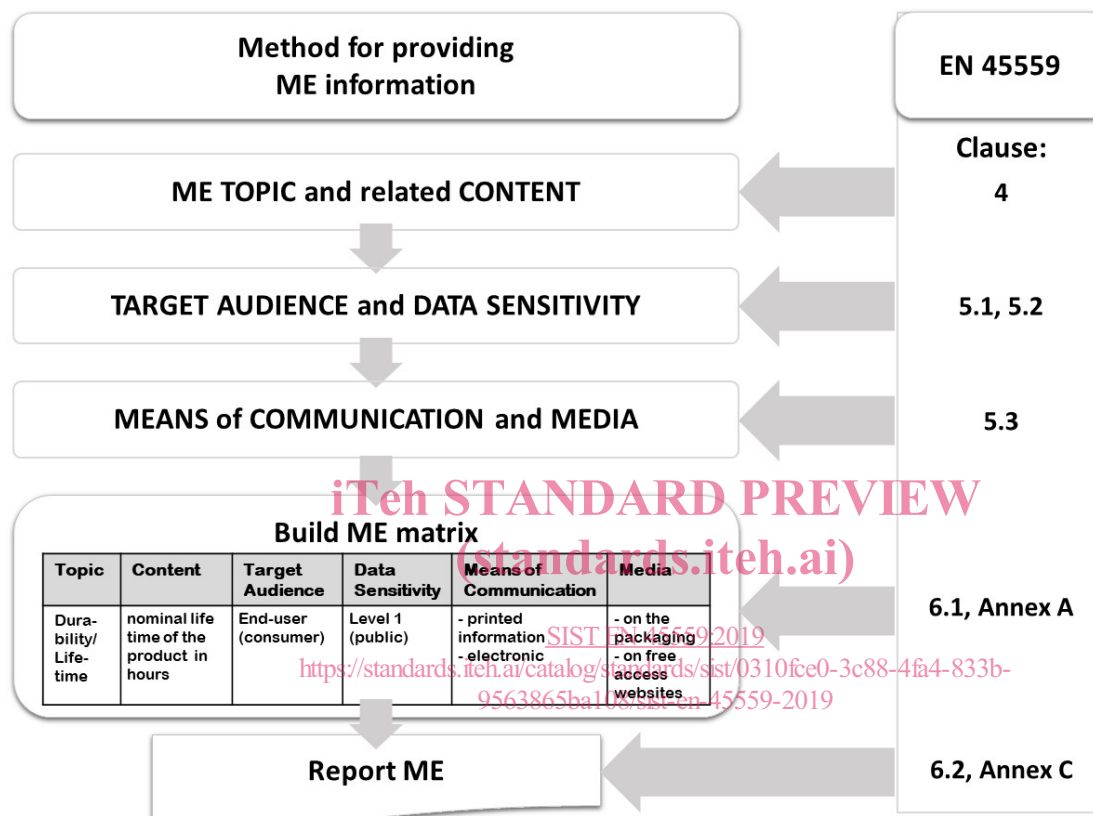


Figure 1 — Graphical representation of the method

NOTE An example of durability/lifetime requirements for certain lamps according to EU/1194/2012; Annex 3.1.2 [3] is shown in the figure.

## 4.2 ME topics and content

### 4.2.1 ME topics

ME topics as proposed by standardization request M/543 [1] have been consolidated by the CEN-CENELEC EN standards in the numerical range of 45552 – 45558.

With respect to the delivery of information, product publications shall determine which of the different ME topics are relevant or applicable to that product and the metrics associated to it, as below.

- **Durability:** EN 45552, *General method for the assessment of the durability of energy-related products* [4];
- **Ability to remanufacture:** EN 45553, *General method for the assessment of the ability to remanufacture energy-related products* [5];
- **Ability to repair, reuse and upgrade:** EN 45554, *General methods for the assessment of the ability to repair, reuse and upgrade energy-related products* [6];



- **Recyclability and recoverability:** EN 45555, *General methods for assessing the recyclability and recoverability of energy-related products* [7];
- **Proportion of reused components:** EN 45556, *General method for assessing the proportion of reused components in energy-related products* [8];
- **Proportion of recycled content:** EN 45557, *General method for assessing the proportion of recycled content in energy-related products* [9];
- **Use of critical raw materials:** EN 45558, *General method to declare the use of critical raw materials in energy-related products* [10].

#### 4.2.2 Topic-related content

The assessment of ME topics such as the ones listed in 4.2.1 is likely to generate different types of information to be communicated to one of more target audiences, either on a voluntary basis or to fulfil legislation. These will be referred to as “topic-related content” in this document.

Topic-related content can have a qualitative nature (like repair information, test reports, etc.) or quantitative (% , mass, hours, etc.).

In some cases, the topic-related content can also be used as an input to assess a ME topic. For example, in order to assess the reparability of a product as described in EN 45554 [6], the availability of specific information by some target audiences, such as information on the availability of spare parts or disassembly instructions, may be needed.

EXAMPLE Examples of topic-related content are:

- Lifetime of a product or product part in appropriate unit of time, cycles, or distance;
- Repair instructions;
- Information on repair centres;
- Disassembly instructions;
- Information on the transfer and deletion of personal data from a product;
- Information on upgrade potential of certain product parts;
- Upgrade instructions;
- Time for disassembly (in appropriate time unit);
- Disassembly sequence (qualitative assessment);
- Availability of spare parts;
- Information on the presence of critical or hazardous materials (in support of e.g. recycling);
- Content of reused components in mass% or total number%;
- Ability to remanufacture a product (qualitative assessment);
- Recycled content in mass%;
- Recyclability or recoverability rates in mass%;
- Amount of CRM, in mass or mass% or range or other;

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- The location of one or more CRMs in a product or product part.

NOTE The above is a non-exhaustive list. Also, not all content will be applicable to all products.

#### 4.2.3 Documenting topic-related content

Standardization documents involving ME topics, including the ones listed in Clause 4.2.1, shall include a clause with an overview of the specific topic-related content to be reported. Where needed, they will also include an overview of information necessary as input for the assessment of that specific ME topic.

## 5 Communication strategy

### 5.1 Target audience

When planning provision of ME information, the needs and capabilities of the intended target audience(s) shall be addressed. Consideration shall be given by the product publications how the target audience are likely to use or manage the product (including end-of-life). Matters such as age range, language, technical knowledge, and technical discipline shall also be taken into account.

The target audience(s) shall be defined and specified when determining the ME information to be provided. The ME information is likely to be directed at more than one target audience (for example consumers and individuals responsible for installation, repair, or certain types of maintenance) and it shall be separated into relevant sections that are clearly and appropriately indicated per target audience.

Three key target audience(s) are defined in this document, representing the numerous receivers of ME information. Product publications shall take into account all three groups when developing the strategy for ME information provision:

- End-users (including consumers);
- Professionals;
- Market surveillance authorities.

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NOTE 1 End-users can also be business organizations using the product.

NOTE 2 Professionals include but are not limited to installers, repairers, (re-)manufacturers, maintenance operators, upgrade services, treatment and preparing for reuse operators, and retailers.

### 5.2 Data sensitivity

#### 5.2.1 General

The ME information to be communicated can be classified as confidential, restricted or public [11]. Disclosure, alteration or loss of, for instance, confidential data, could cause damage to the manufacturer, its affiliates, and/or third parties.

Therefore, the provision of data considered as confidential by the manufacturer is at the discretion of the manufacturer, except when mandated by legislation or by voluntary agreements signed by the manufacturer.

The purpose of establishing different data sensitivity levels for ME topics is to create a communication strategy for topic-related content based on its level of sensitivity for the manufacturer and relevance for the target audience. Topic-related content can be shared according to three levels, depending on the type and sensitivity of the information with the receiver (target audience) in mind.

The level will depend on, among other aspects, product type, market needs, regulations and sensitivity of the data including for example product safety aspects. See Annex A for an example of the use of data sensitivity levels associated with different topic-related content.

### 5.2.2 Level 1 – PUBLIC

The topic-related content is classified as PUBLIC when the disclosure, alteration or loss of that content would result in little or no damage to the manufacturer and its affiliates, to third parties or customers. Public content also refers to data that shall be disclosed in view of legislation or to comply with a voluntary agreement.

### 5.2.3 Level 2 – RESTRICTED

The topic-related content is classified as RESTRICTED when the disclosure, alteration or loss of that content could result in moderate damage to the manufacturer or its affiliates, as well as risks to third parties. Restricted information can be shared by the manufacturer with authorized third parties.

### 5.2.4 Level 3 – CONFIDENTIAL

The topic-related content is classified as CONFIDENTIAL when the disclosure, alteration or loss of that content could cause significant damage to the manufacturer or its affiliates, as well as risks to third parties. Confidential data are highly sensitive or valuable information, both proprietary and/or private. The highest level of security controls should be applied to confidential data.

## 5.3 Communication method

### 5.3.1 General

In this document “means of communication” and “media” are defined as the basis of the communication method. Means of communication refers to the way in which ideas or information are communicated, either oral, written, graphics or combinations thereof. Media refers to the collective communication outlets or tools used to store or deliver information or data. Means of communication and media shall be chosen as appropriate according to the environment and target audience.

The decision of which media to use shall ensure that the target audience has permanent and / or easy access to all information necessary during use and / or management of the product, under foreseeable circumstances, especially for safety, installation, maintenance, repair, and disposal.

The means of communication and media shall be chosen taking compliance with legal requirements into consideration.

NOTE The terms means of communication and media are derived from EN IEC 82079-1:2012 [12].

### 5.3.2 Means of communication

After defining the content in relation to the ME topic to be communicated and to whom, users of this standard shall consider the means of communication that are most suitable for providing that information. Examples of means of communicating ME topics are:

- **Oral formats:** such as audio and video, recorded media, mouth-to-mouth communication, phone, etc.;
- **Written formats:** such as text, labels, illustrations, leaflets (e.g. paper, plastic), posters, data-sheets, brochures, press, product built-in manuals, letters, emails, technical documentation;
- **Graphic representation:** such as graphical symbols, marks, photographs, braille, tactile figures, signs or other visible hand gestures;
- **Combinations of the above:** such as electronic information, virtual-reality, asset tracking technologies (e.g. barcode, QR code), etc.

More details on asset tracking technologies as means of communication are provided in Annex B.