SLOVENSKI STANDARD
oSIST prEN ISO 14045:2011

01-maj-2011

Ravnanje z okoljem - Ocena okoljske učinkovitosti proizvodnih sistemov - Načela, zahteve in smernice (ISO/DIS 14045:2011)

Environmental management - Eco-efficiency assessment of product systems - Principles, requirements and guidelines (ISO/DIS 14045:2011)

Umweltmanagement - Ökoeffizienzbewertung von Produktsystemen - Prinzipien, Anforderungen und Leitlinien (ISO/DIS 14045:2011)

Management environnemental - Évaluation d'efficacité écologique des systèmes de produit - Principes, exigences et lignes directrices (ISO/DIS 14045:2011)

Ta slovenski standard je istoveten z: **prEN ISO 14045**

ICS:

13.020.10	Ravnanje z okoljem	Environmental management

oSIST prEN ISO 14045:2011 **en,fr,de**

EUROPEAN STANDARD

NORME EUROPÉENNE

EUROPÄISCHE NORM

DRAFT
prEN ISO 14045

January 2011

ICS 13.020.10; 13.020.60

English Version

Environmental management - Eco-efficiency assessment of product systems - Principles, requirements and guidelines (ISO/DIS 14045:2011)

Management environnemental - Évaluation d'efficacité écologique des systèmes de produit - Principes, exigences et lignes directrices (ISO/DIS 14045:2011)

This draft European Standard is submitted to CEN members for parallel enquiry. It has been drawn up by the Technical Committee CEN/SS S26.

If this draft becomes a European Standard, CEN members are bound to comply with the CEN/CENELEC Internal Regulations which stipulate the conditions for giving this European Standard the status of a national standard without any alteration.

This draft European Standard was established by CEN in three official versions (English, French, German). A version in any other language made by translation under the responsibility of a CEN member into its own language and notified to the CEN-CENELEC Management Centre has the same status as the official versions.

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Recipients of this draft are invited to submit, with their comments, notification of any relevant patent rights of which they are aware and to provide supporting documentation.

Warning : This document is not a European Standard. It is distributed for review and comments. It is subject to change without notice and shall not be referred to as a European Standard.

EUROPEAN COMMITTEE FOR STANDARDIZATION
COMITÉ EUROPÉEN DE NORMALISATION
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Foreword

This document (prEN ISO 14045:2011) has been prepared by Technical Committee ISO/TC 207 “Environmental management”.

This document is currently submitted to the parallel Enquiry.

Endorsement notice

The text of ISO/DIS 14045:2011 has been approved by CEN as a prEN ISO 14045:2011 without any modification.

DRAFT INTERNATIONAL STANDARD ISO/DIS 14045

ISO/TC **207**/SC **5** Secretariat: **AFNOR**

Voting begins on **2011-01-20** Voting terminates on **2011-06-20**

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION • МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ • ORGANISATION INTERNATIONALE DE NORMALISATION

Environmental management — Eco-efficiency assessment of product systems — Principles, requirements and guidelines

Management environnemental — Évaluation d'efficacité écologique des systèmes de produit — Principes, exigences et lignes directrices

ICS 13.020.10; 13.020.60

ISO/CEN PARALLEL PROCESSING

This draft has been developed within the International Organization for Standardization (ISO), and processed under the **ISO-lead** mode of collaboration as defined in the Vienna Agreement.

This draft is hereby submitted to the ISO member bodies and to the CEN member bodies for a parallel five-month enquiry.

Should this draft be accepted, a final draft, established on the basis of comments received, will be submitted to a parallel two-month approval vote in ISO and formal vote in CEN.

In accordance with the provisions of Council Resolution 15/1993 this document is circulated in the English language only.

Conformément aux dispositions de la Résolution du Conseil 15/1993, ce document est distribué en version anglaise seulement.

To expedite distribution, this document is circulated as received from the committee secretariat. ISO Central Secretariat work of editing and text composition will be undertaken at publication stage.

Pour accélérer la distribution, le présent document est distribué tel qu'il est parvenu du secrétariat du comité. Le travail de rédaction et de composition de texte sera effectué au Secrétariat central de l'ISO au stade de publication.

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Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

International Standards are drafted in accordance with the rules given in the ISO/IEC Directives, Part 2.

The main task of technical committees is to prepare International Standards. Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

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

ISO 14045 was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 5, *Life cycle assessment*.

Introduction

Eco-efficiency assessment is a quantitative management tool which enables the consideration of life cycle environmental impacts of a product system alongside its product system value to a stakeholder.

Within eco-efficiency assessment, environmental impacts are evaluated using Life Cycle Assessment (LCA) as prescribed by other International Standards (ISO 14040, 14044). Consequently, eco-efficiency assessment shares with LCA many important principles such as life cycle perspective, comprehensiveness, functional unit approach, iterative nature, transparency and priority of scientific approach.

The value of the product system may be chosen to reflect, for example, its resource, production, delivery or use efficiency, or a combination of these. The value may be expressed in monetary terms or other value aspects.

The key objectives of this International Standard are to:

— establish clear terminology and a common methodological framework for eco-efficiency assessment;

— enable the practical use of eco-efficiency assessment for a wide range of product (including service) systems;

— provide clear guidance on the interpretation of eco-efficiency assessment results;

— encourage the transparent, accurate and informative reporting of eco-efficiency assessment results.

This International Standard, like other International Standards, is not intended to be used to create non-tariff trade barriers or to increase or change an organization's legal obligations.

Environmental management — Eco efficiency assessment of product systems — Principles, requirements and guidelines

1 Scope

This International Standard describes the principles, requirements and guidelines for eco-efficiency assessment for product systems including

a) the goal and scope definition of the eco-efficiency assessment;

b) the environmental assessment;

c) the product system value assessment;

d) the quantification of eco-efficiency;

e) interpretation (including quality assurance);

f) reporting;

g) critical review of the eco-efficiency assessment.

Requirements, recommendations and guidelines for specific choices of categories of environmental impact and values are not included. The intended application of the eco-efficiency assessment is considered during the goal and scope definition, but the actual use of the results is outside the scope of this International Standard. This International Standard is not intended to be used as a single base for contractual or regulatory purposes or registration and certification.

2 Normative references

The following referenced documents are indispensable for the application of this document. For dated references, only the edition cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework

ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines

3 Terms and definitions

For the purpose of this International Standard, the terms and definitions given in ISO 14050 and the following apply.

NOTE Terms are not defined where they retain their normal dictionary definition. Where bold type is used within a definition, this indicates a cross-reference to another term defined in this clause, and the number reference for the term is given in parentheses.

3.1
product
any goods or service

[ISO 14021:1999 and ISO 9001:2008]

3.2
product flow
products (3.1) entering from or leaving to another product system

[ISO 14040:2006]

3.3
product system
collection of unit processes with elementary and **product flows** (3.2), performing one or more defined functions, and which models the life cycle of a **product** (3.1)

[ISO 14040:2006]

3.4
environmental aspect
element of an organization's activities or products or services that can interact with the environment

NOTE A significant environmental aspect has or can have a significant environmental impact.

[ISO 14001:2004]

3.5
environmental performance
measurable results related to **environmental aspects** (3.4)

3.6
eco-efficiency
aspect of sustainability relating the **environmental performance** (3.5) of a **product system** (3.3) to its **product system value** (3.7)

NOTE Eco-efficiency is a broad concept but it does not encompass the social aspect of sustainability.

3.7
product system value
worth or desirability ascribed to the functions of a **product system** (3.3)

NOTE The product system value may encompass different value aspects, including functional, monetary, aesthetic, etc.

3.8
product system value indicator
numerical quantity representing the **product system value** (3.6)

NOTE To express the product system value indicator, various kinds of units such as physical and monetary units or relative gradings and scoring may be used.

3.9
eco-efficiency indicator
measure of the **environmental performance** (3.5) of a **product system** (3.3) and its related **product system value** (3.7)

3.10
eco-efficiency profile
eco-efficiency (3.6) assessment results relating the life cycle impact assessment results to the **product system value** (3.6) assessment results

3.11
weighting factor
<eco-efficiency>
factor derived from a weighting model, which is applied to convert an assigned life cycle inventory result, a life cycle impact category indicator result, or product system value indicator to the common unit of the weighting indicator

3.12
sensitivity analysis
systematic procedures for estimating the effects of the choices made regarding methods and data on the outcome of a study

[ISO 14040:2006]

3.13
uncertainty analysis
systematic procedure to quantify the uncertainty introduced in the results of a life cycle inventory analysis due to the cumulative effects of model imprecision, input uncertainty and data variability

NOTE Either ranges or probability distributions are used to determine uncertainty in the results.

[ISO 14040:2006]

3.14
unit process
smallest element considered in the life cycle inventory analysis for which input and output data are quantified

[ISO 14040:2006]

3.15
critical review
process intended to ensure consistency between an **eco-efficiency** (3.6) assessment and the principles and requirements of the International Standard on eco-efficiency assessment

[Adapted from ISO 14040:2006]

Draft NOTE The reference regarding how the definition from ISO 14040 is adapted will be harmonized with new rules in ISO Directives that will be published in a near future.

3.16
comparative assertion
claim in **eco-efficiency** (3.6) regarding the superiority or equivalence of one **product** (3.1) versus a competing **product** (3.1) in a market that performs the same function

[Adapted from ISO 14040:2006]

Draft NOTE The reference regarding how the definition from ISO 14040 is adapted will be harmonized with new rules in ISO Directives that will be published in a near future.