Irish Standard
I.S. EN ISO 14045:2012

Environmental management - Eco-efficiency assessment of product systems - Principles, requirements and guidelines (ISO 14045:2012)

I.S. EN ISO 14045:2012

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English Version

Environmental management - Eco-efficiency assessment of product systems - Principles, requirements and guidelines (ISO 14045:2012)

Management environnemental - Évaluation de l'éco-efficacité des systèmes de produits - Principes, exigences et lignes directrices (ISO 14045:2012)

Umweltmanagement - Ökoeffizienzbewertung von Produktsystemen - Prinzipien, Anforderungen und Leitlinien (ISO 14045:2012)

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Contents

Page

Foreword

This document (EN ISO 14045:2012) has been prepared by Technical Committee ISO/TC 207 “Environmental management”.

This European Standard shall be given the status of a national standard, either by publication of an identical text or by endorsement, at the latest by November 2012, and conflicting national standards shall be withdrawn at the latest by November 2012.

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Endorsement notice

The text of ISO 14045:2012 has been approved by CEN as a EN ISO 14045:2012 without any modification.

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I.S. EN ISO 14045:2012

INTERNATIONAL STANDARD

ISO 14045

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

Management environnemental — Évaluation de l'écoefficacité des systèmes de produits — Principes, exigences et lignes directrices

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Contents

Page

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 study of life-cycle environmental impacts of a product system along with its product system value for a stakeholder.

Within eco-efficiency assessment, environmental impacts are evaluated using Life Cycle Assessment (LCA) as prescribed by other International Standards (ISO 14040, ISO 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 a 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.

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 phase, but the actual use of the results is outside the scope of this International Standard.

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*

ISO 14050:2009, *Environmental management — Vocabulary*

3 Terms and definitions

For the purposes of this document, the terms and definitions given in ISO 14050 and the following apply.

3.1
product
any goods or service

[SOURCE: ISO 14021:1999, 3.1.11]

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

[SOURCE: ISO 14040:2006, 3.27]