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Environmental labels and declarations — Development of product category rules

Marquages et déclarations environnementaux — Développement des règles de catégorie de produit

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Foreword

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The procedures used to develop this document and those intended for its further maintenance are described in the ISO/IEC Directives, Part 1. In particular the different approval criteria needed for the different types of ISO documents should be noted. This document was drafted in accordance with the editorial rules of the ISO/IEC Directives, Part 2 (see www.iso.org/directives).

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. Details of any patent rights identified during the development of the document will be in the Introduction and/or on the ISO list of patent declarations received (see www.iso.org/patents).

Any trade name used in this document is information given for the convenience of users and does not constitute an endorsement.

For an explanation on the voluntary nature of standards, the meaning of ISO specific terms and expressions related to conformity assessment, as well as information about ISO's adherence to the World Trade Organization (WTO) principles in the Technical Barriers to Trade (TBT) see the following URL: www.iso.org/iso/foreword.html.

This document was prepared by Technical Committee ISO/TC 207, *Environmental management*, Subcommittee SC 3, *Environmental labelling*.

Introduction

International standards for product-related environmental communication, based on life cycle assessment (LCA), necessitate the use of product category rules (PCR). Since the publication of ISO 14025, ISO 14046, ISO/TS 14067 and ISO 21930 between 2006 and 2014, operators of Type III environmental product declaration and footprint communications as well as other organizations have gained varying levels of experience with the development and use of PCR.

The quality of PCR available on the market varies and PCR of low quality bear the risk of undermining the usefulness and credibility of PCR in general. A common international approach to the development of PCR can also facilitate the involvement of all interested parties, including those from developing countries, which can increase the quality and consistency of PCR generally.

This document is intended to ensure a certain level of quality of PCR by providing principles, requirements and guidelines for their development, including reviewing, registration and updating.

This document is intended to benefit organizations, governments, communities and other interested parties through:

— providing efficient and consistent procedures for developing PCR of good quality;

— enabling the harmonization of PCR, or the recognition of equivalence of measures, when relevant;

— providing a better understanding of PCR especially among interested parties and regions;

— encouraging the adoption and dissemination of PCR in the business community; enhancing the credibility, consistency (e.g. between different regions or sectors) and transparency of PCR.

This document is part of the suite of standards developed by ISO/TC 207/SC 3 dealing with environmental labels and environmental declarations of products.

Environmental labels and declarations — Development of product category rules

1 Scope

This document provides principles, requirements and guidelines for developing, reviewing, registering and updating PCR within a Type III environmental declaration or footprint communication programme based on life cycle assessment (LCA) according to ISO 14040 and ISO 14044 as well as ISO 14025, ISO 14046 and ISO/TS 14067.

It also provides guidance on how to address and integrate additional environmental information, whether or not it is based on LCA in a coherent and scientifically sound manner according to ISO 14025.

2 Normative references

The following documents are referred to in the text in such a way that some or all of their content constitutes requirements 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 14020, *Environmental labels and declarations — General principles*

ISO 14021:2016, *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)*

ISO 14025:2006, *Environmental labels and declarations — Type III environmental declarations — Principles and procedures*

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

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

ISO 14046, *Environmental management — Water footprint — Principles, requirements and guidelines*

ISO/TS 14067, *Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification and communication*

ISO/TS 14071:2014, *Environmental management — Life cycle assessment — Critical review processes and reviewer competencies: Additional requirements and guidelines to ISO 14044:2006*

3 Terms and definitions

For the purposes of this document, the following terms and definitions apply.

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

— ISO Online browsing platform: available at http://www.iso.org/obp

— IEC Electropedia: available at http://www.electropedia.org/

3.1
product category rules
PCR
set of specific rules, requirements and guidelines for developing *Type III environmental declarations* (3.5) and footprint communications for one or more *product categories* (3.3)

Note 1 to entry: For PCR for footprint communications, a qualifier is often used, e.g. CFP-PCR in the case of carbon footprint product category rules.

[SOURCE: ISO 14025:2006, 3.5, modified — The words "and footprint communications" have been added to the definition and Note 1 to entry has been added.]

3.2
core rules
set of rules which provide consistent requirements for the development of *product category rules* (3.1) across multiple *product categories* (3.3)

Note 1 to entry: These product categories may belong to the same industry sector.

Note 2 to entry: An example of core rules for construction products is ISO 21930.

3.3
product category
group of products that can fulfil equivalent functions

[SOURCE: ISO 14025:2006, 3.12]

3.4
environmental declaration
environmental label
claim which indicates the environmental aspects of a product

Note 1 to entry: An environmental label or declaration may take the form of a statement, symbol or graphic on a product or package label, in product literature, in technical bulletins, in advertising or in publicity, amongst other things.

Note 2 to entry: The term "product" includes goods and services.

[SOURCE: ISO 14025:2006, 3.1, modified — The words "or service" have been deleted from the definition and Note 2 to entry has been added.]

3.5
Type III environmental declaration
environmental declaration (3.4) providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information

Note 1 to entry: The predetermined parameters are based on the ISO 14040- series of standards, which is made up of ISO 14040 and ISO 14044.

Note 2 to entry: The additional environmental information may be quantitative or qualitative.

[SOURCE: ISO 14025:2006, 3.2.]

3.6
programme operator
body or bodies that conduct a *Type III environmental declaration* (3.5) programme or footprint communication programme

Note 1 to entry: A programme operator can be a company or a group of companies, industrial sector or trade association, public authorities or agencies, or an independent scientific body or other organization.

Note 2 to entry: See Annex B for further information on the tasks for a programme operator.

[SOURCE: ISO 14025:2006, 3.4, modified — The words "or footprint communication programme" have been added to the definition and Note 2 to entry has been added.]

3.7
PCR committee
group of *interested parties* (3.9) tasked by the *programme operator* (3.6) with drafting and finalizing the *product category rules* (3.1)

3.8
registration code
identifier of the *product category rules* (3.1)

3.9
interested party
person or organization that can affect, be affected by, or perceive itself to be affected by a decision or activity

EXAMPLE Customers, communities, suppliers, regulators, non-governmental organizations, investors and employees.

Note 1 to entry: To "perceive itself to be affected" means the perception has been made known to the organization.

[SOURCE: ISO 14001:2015, 3.1.6]

3.10
declared unit
quantity of a product for use as a reference unit in a *Type III environmental declaration* (3.5) or footprint communication, based on one or more *information modules* (3.12)

Note 1 to entry: The declared unit is used where the function and the reference scenario for the whole life cycle cannot be stated.

EXAMPLE 1 kg of primary steel; 1 m^3 of crude oil.

[SOURCE: ISO 21930:—, modified — The definition has been broadened to cover all products, as well as footprint communications.]

3.11
comparative assertion
environmental claim regarding the superiority or equivalence of one product versus a competing product that performs the same function

[SOURCE: ISO 14040:2006, 3.6]

3.12
information module
compilation of data to be used as a basis for a *Type III environmental declaration* (3.5) or footprint communication, covering a unit process or a combination of unit processes that are part of the life cycle of a product

Note 1 to entry: See also Annex A.

[SOURCE: ISO 14025:2006, 3.13, modified — The words "or footprint communication" have been added to the definition and Note 1 to entry has been added.]

4 Symbols and abbreviated terms

LCA Life Cycle Assessment

LCI Life Cycle Inventory

PCR Product Category Rules

5 Principles

5.1 LCA based environmental information

PCR follow the provisions of ISO 14044, and where relevant ISO 14025, ISO 14046 and ISO/TS 14067. PCR are based on supporting LCA or footprint studies and on additional LCA-based information from other sources referenced in the PCR.

NOTE Type III environmental declarations also include additional information that is not based on LCA, as described in ISO 14025:2006, 7.2.3.

5.2 Involvement of interested parties

The process of developing PCR is transparent, includes participatory open consultation with a balanced representation of interested parties and involves reasonable efforts to achieve a consensus throughout the process. Organizing appropriate consultations ensures credibility and transparency.

5.3 Comparability

PCR are intended to increase, as far as possible, the comparability of Type III environmental declaration and footprint communications for products in the same product category using the same PCR

NOTE For limitations of comparability, see ISO 14025.

6 PCR development

6.1 General

PCR shall follow the rules of the Type III environmental declaration or footprint communication programme within which they are developed.

NOTE 1 For Type III environmental declarations, these rules are summarized in the general programme instructions in accordance with ISO 14025:2006, 6.4.

The PCR shall be based on environmental information obtained from at least one of the following:

a) relevant LCA studies that fulfil the requirements of 6.5.1 and ISO 14044, and represent the full life cycle of the product category covered by the PCR;

b) relevant LCA-based footprint studies.

EXAMPLE ISO 14046 for water footprints; ISO/TS 14067 for carbon footprint of products.

The PCR may also take into consideration:

— other LCA-based additional environmental information from documents referenced in the PCR;

— additional environmental information not based on LCA (see 6.6).

LCA studies that have been critically reviewed in accordance with ISO 14044:2006, Clause 6, or ISO/TS 14071 should be given precedence if the representativeness, completeness, and accuracy of the information they contain is comparable.

In the case of PCR for products, the supporting LCA study or studies shall represent all life cycle stages of one or more products within the product category covered by the PCR.

In the case of PCR for information modules, the life cycle stages considered in the supporting LCA study or studies, alone or in combination, shall match the scope of the PCR.

NOTE 2 Further guidance on information modules is provided in Annex A.

An existing PCR document, registered by a programme operator, based on LCA in accordance with ISO 14044 or other relevant LCA-based footprint studies and having undergone a PCR review according to this document, may also be used for developing new PCR. If an existing PCR can be used or amended, this course should be followed rather than creating a new PCR.

NOTE 3 The process of preparing PCR can be done in parallel with supporting LCA studies.

6.2 Consistent information

A goal of PCR is to enable different practitioners using the PCR to generate consistent results when assessing products of the same product category. PCR shall provide requirements to generate Type III environmental declarations and footprint communications that provide consistent information.

These requirements shall include data quality aspects based on ISO 14044:2006, 4.2.3.6.2.

6.3 Comparability

PCR shall include requirements for comparability within the product category, including requirements related to data and modelling.

Comparability as described in this document is not sufficient to make a comparative claim (see ISO 14021), or a comparative assertion (see ISO 14044). Performance tracking (see ISO/TS 14067 and ISO 14026) does not require a PCR, but where a PCR is used for performance tracking, it shall follow all the requirements of this standard, including the requirements for comparability.

NOTE 1 For requirements on comparability see ISO 14025:2006, 6.7.2.

NOTE 2 Programme operators can prefer, recommend or require the use of certain background data sources to enhance the comparability of environmental declarations and footprint communications based on the same PCR.

6.4 PCR preparation

6.4.1 Formation of the PCR committee

A PCR committee shall be established for a selected product category. The task of the PCR committee is to define the product category and develop the respective PCR.

The programme operator, or their delegate, shall:

a) notify representatives of the interested parties about the development of the PCR and the formation of the PCR committee, so that interested parties can determine whether they wish to participate in the PCR committee or contribute otherwise to the PCR development process;

b) establish the PCR committee;

c) ensure a balanced mix of interested party perspectives and competencies (see ISO 14025:2006, 5.5, 6.5 and 9.3). If an interested party is excluded, this shall be justified;

NOTE 1 Any interested party can choose to participate in, or abstain from the open consultation (see 6.4.3).

d) ensure that a PCR committee chair can demonstrate sufficient knowledge of and proficiency in LCA and Type III environmental declarations according to ISO 14025 and footprint communications based on ISO 14044, 14025, ISO 14046 and ISO/TS 14067;

NOTE 2 ISO/TS 14071 provides guidance that can be of assistance.

e) ensure that the PCR committee chair promotes collaboration between PCR committee members and seeks contributions from them;

f) make publicly available the PCR committee's decisions with regard to any submitted comments.

6.4.2 Tasks of the PCR committee

The PCR committee as a whole shall possess competence in LCA and the key technologies and processes that contribute to the life cycle of those products that belong to the product category covered by the PCR.

The PCR committee shall:

a) draft the PCR, following and referencing the general programme instructions;

b) apply the process of PCR adaptation according to 6.4.2;

c) report its decisions to the review panel and the programme operator who will make the decisions publicly available;

d) review and respond to comments from the PCR review panel (see 7.2) and the open consultation process (see 6.4.4).

Documentation shall be made publicly available that:

— shows that a balance of all interested parties was invited;

— justifies why any interested parties are excluded;

— identifies those invited parties that chose not to participate.

Alternatively, PCR can be drafted by a group of interested parties, which request a programme operator to organize the open consultation and the PCR review and to publish the PCR. This may result in modifications to the PCR.

6.4.3 Adaptation of existing PCR

Figure 1 is an illustrative example of a stepwise procedure for the adaptation of a PCR.

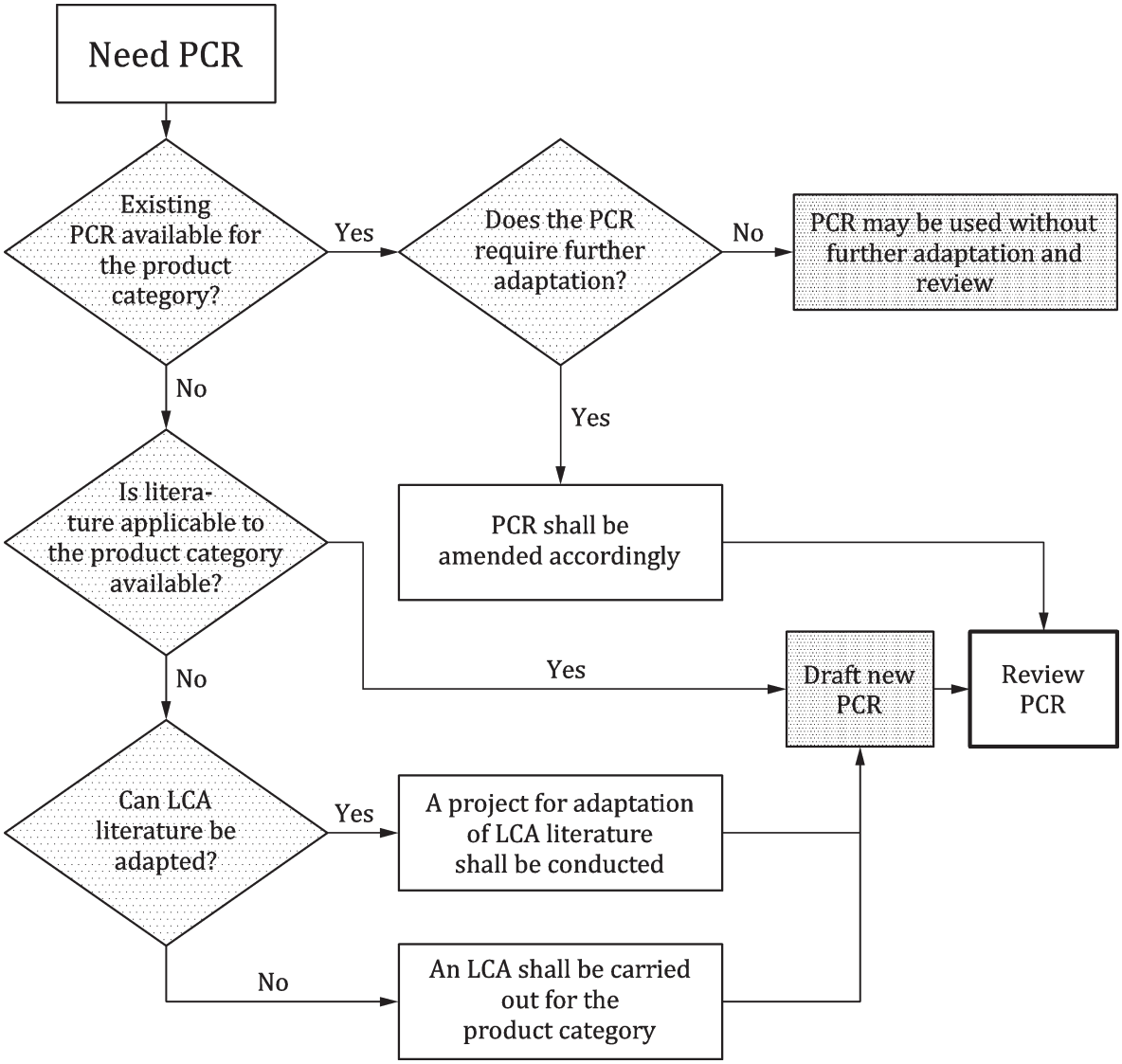

Figure 1 — Flow chart to assist decisions within the PCR committee before drafting PCR

Before developing new PCR, the PCR committee shall look for existing PCR for the intended product category, or a related product category.

Existing PCR may be adapted. Any adaptation of an existing PCR shall:

a) fulfil the requirements of applicable standards including this document and ISO 14025;

b) fulfil general programme instructions of the programme operator;

c) integrate additional requirements and guidelines which increase the PCR relevance in order to improve representativeness.

NOTE Examples of additional requirements and guidelines include expanding the scope of the PCR, adding a new impact category to be calculated, modifying secondary data sources to adapt them to the local situation, or adding new requirements for additional environmental information.

The application and/or adaptation of existing PCR shall be the preferred option.

When PCR are adapted, the programme operator of the adapted PCR should inform the programme operator who developed the original PCR about the changes.

If existing PCR are not used, this shall be justified. PCR for sub-categories of products (see 6.5.5) may depend on more general guidance documents or be an element of an overarching PCR covering an industrial sector. In these cases, differences between the PCR under development and the PCR on which they are based should be explained and the explanation should be made publicly available.

If PCR for information modules related to products within the product category under consideration are available and relevant, e.g. product components, life cycle stages or energy flows, they should be integrated into the PCR under development with adaptation, if necessary. The scopes of the modules used to generate a Type III environmental declaration or footprint communication shall be consistent.

When PCR are finalized, they shall be published and made publicly available by the programme operator (see Clause 8).

6.4.4 Open consultation

A transparent procedure for open consultation shall be carried out as part of the preparation of the PCR as defined in the general programme instructions. The programme operator shall be responsible for ensuring that the consultation takes place appropriately (see 7.3 and ISO 14025:2006, 5.5).

As part of the consultation procedure, the draft PCR shall be submitted to representatives of the interested parties for feedback. Any changes (e.g. geographical adaptations) to existing PCR shall also be submitted to the open consultation. The PCR committee shall endeavour to resolve conflicting responses from the open consultation.

When PCR significantly impact or involve countries outside of the location of the PCR development, efforts shall be made to involve interested parties from these other locations. Special efforts shall be made and documented when this involves developing countries, as these countries may not have prior involvement or interest in PCR development. Language is not a justification for failure to involve interested parties in these countries.

6.5 Content of the PCR

6.5.1 Product category

The product category to which the PCR apply shall be defined and described in the PCR.

The description of the product category and the structure of the PCR shall be in accordance with the general programme instructions of the programme operator.

6.5.2 Functional unit or declared unit

The functional unit definition shall follow the requirements of ISO 14044:2006, 4.2.3.2. It shall be based on the intended function or service of the product and defined as the quantified performance of a product system in terms of its unit, magnitude, and if relevant, duration, and level of quality. Only products that perform equivalent functions belong in the same product category (ISO 14025:2006, 3.12).

NOTE Different products within the same product category can have different lifetimes.

Alternatively, PCR may be based on a declared unit, which should be based on a physical unit and magnitude that is of relevance in the marketplace (e.g. per *x* unit(s) of mass, per *x* unit(s) of area, per SKU.).

6.5.3 Requirements for conducting the underlying LCA or footprint studies

The PCR shall include all applicable requirements for conducting the LCA or footprint study underlying the Type III environmental declaration or footprint communication, according to ISO 14044, ISO 14046 and ISO/TS 14067, including but not limited to:

a) the functional or declared unit (see 6.5.2);

b) the system boundary: the definition of the system boundary shall follow the requirements of ISO 14044:2006, 4.2.3.3;

c) reference to any specific data or calculation rules to be used in the calculation;

d) allocation rules: the PCR shall define the allocation rules in accordance with ISO 14044:2006, 4.3.4;

e) product lifetime: the PCR should be based on a specific lifetime for products in the sector and if this is not possible, on a generic lifetime; the lifetime shall be defined with a focus on providing fair and common assessment rules for a specific group of products combined in a common product category with respect to the system boundary, data quality, assumptions and calculation rules.

6.5.4 Predetermined parameters

The PCR shall comprise predetermined parameters for reporting, which shall be established according to ISO 14025, ISO 14040 and ISO 14044. For footprint studies, only predetermined parameters related to the relevant area of concern shall be included.

NOTE Predetermined parameters are the parameters on which environmental information about a product is to be supplied as identified in the PCR.

The following parameters may be considered as predetermined parameters:

a) one or more impact category indicator results;

b) a set of inventory results that are elementary flows (e.g. iron ore, CO_2);

c) a set of data that do not represent elementary flows (e.g. waste).

Information and instructions shall only be related to environmental issues.

6.5.5 Core rules and PCR

If one or more core rules are being used as the basis for the development of the PCR, the PCR shall:

a) fulfil all the requirements of the core rules;

b) define its hierarchical position in relation to other PCR that have been developed on the basis of the same core rules within the same programme.

Figure 2 shows a graphical representation of a hierarchical structure of PCR published on the basis of the same core rules. The hierarchical structure should align with the classification system adopted by the programme operator (see 8.1), but may include more detail where necessary.

The hierarchical position of PCR within this structure shall indicate conformance to all superordinate documents in the hierarchy.

PCR should be consistent with other PCR on the same hierarchical level.

In general, to avoid a proliferation of PCR, they should be developed in a way that eliminates the need for subordinate PCR to be developed.

NOTE 1 For example, PCR for flooring textiles made from wool need to include the same rules for addressing specific environmental impacts (e.g. biogenic carbon) as PCR for flooring panels made from solid timber.

NOTE 2 Product categories located on any hierarchical level can be considered “sub-categories” of the superordinate product category, even if they do not use the same functional unit.

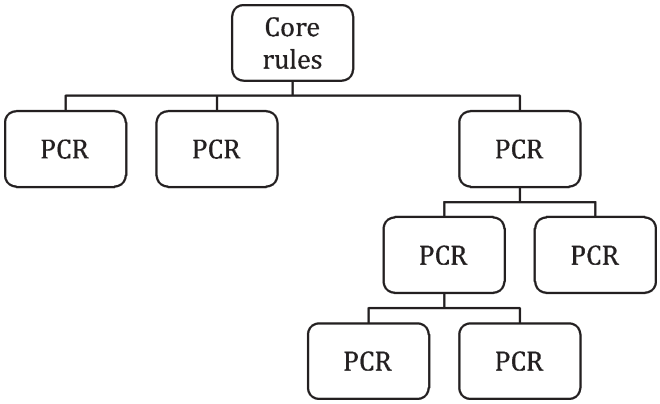

Figure 2 — Schematic relationship of core rules and PCR

6.5.6 Conditions to support comparability

The PCR shall specify or reference rules for comparability (see 6.3) based on the relevant requirements of ISO 14044, as well as other relevant references.

NOTE 1 Other references can include ISO 14025, ISO 21930 or the relevant sections of the general programme instructions.

NOTE 2 Comparability of different Type III environmental declarations are deemed achieved when the requirements described in ISO 14025:2006, 6.7.2, are met.

NOTE 3 Type III environmental declaration and footprint communications based on the same PCR are intended to support comparison between products within a specific product category. While PCR provide transparency and improved comparability with respect to the goal and scope of an LCA, e.g. specific boundary conditions, assumptions and calculation rules following the same PCR is not always sufficient to ensure comparability.

NOTE 4 Type III environmental declaration or footprint communications based on different PCR from different programme operators are not necessarily comparable.

6.6 Additional environmental information

The PCR shall state the requirements for additional environmental information. Additional environmental information shall be based on information that is substantiated and verifiable, in accordance with the requirements of ISO 14020, ISO 14021:2016, Clause 5, and ISO 14025:2006, 7.2.4.

Additional environmental information required by the PCR shall be specific, accurate, not misleading and relevant to the particular product category. This additional information may include relevant regional issues. Quantitative environmental information is preferred to qualitative environmental information whenever available.

NOTE 1 Additional information is environmental information which is relevant to the product category but not covered by the predetermined parameters. See also ISO 14025:2006, 7.2.3.

NOTE 2 Significant quantitative and qualitative environmental aspects not covered by LCA can include measures still under development and measures with high uncertainty.

When the PCR require the reporting of environmental aspects that are not adequately captured by the predetermined parameters derived from LCA, LCI or information modules, the PCR shall include requirements and guidance with regard to this additional environmental information. Where relevant,

the additional environmental information may include those items described in ISO 14025:2006, 7.2.3 and 7.2.4, and can include:

a) requirements for provision of additional environmental information, including any methodological requirements (e.g. specifications for hazard and risk assessment on human health and the environment);

b) materials and substances to be declared (e.g. information about product content, including specification of materials and substances that can adversely affect human health and/or the environment, in all stages of the life cycle);

c) instructions for producing or obtaining the data on which the additional environmental information is based;

d) data on product performance, if environmentally significant and quantified, e.g. when the product use brings an environmental benefit such as energy savings resulting from the installation of insulation material.

Other additional environmental information required by the PCR may include additional information derived from LCA, LCI or information modules, provided that it is not presented as an absolute load per functional unit or declared unit.

EXAMPLE If toxicity is not required to be reported as a predetermined parameter of this impact category, additional environmental information on toxicity can contain a breakdown of the most relevant contributors to toxicity aspects. Disclosing only the absolute value as an indicator result for this impact category can lead to misinterpretation.

7 PCR review

7.1 General

As part of the PCR development, a PCR review shall be undertaken by a PCR review panel in accordance with ISO 14025.

The PCR review aims to safeguard and confirm the validity of the PCR. It may also improve the PCR further, especially the assumptions or other modelling choices necessary for the calculations. The PCR review shall be in accordance with ISO 14025 and this document. It supports comparability within a defined product category.

The PCR review process shall ensure that:

a) the PCR are in accordance with this document;

b) the methods required by the PCR are scientifically and technically valid;

c) the data required by the PCR are appropriate and reasonable;

d) priority has been given to LCA data that has undergone critical review in accordance with ISO 14044:2006, Clause 6, and ISO/TS 14071.

Even though a PCR review is not a critical review and the two have different scopes and objectives, the PCR review should consider using ISO/TS 14071 to organize and conduct the review.

7.2 The PCR review panel

The PCR review shall be conducted by a balanced panel of at least three independent external experts (see ISO/TS 14071:2014, 3.2), including a chair that shall be independent of the industries producing and supplying the products covered by the product category or their suppliers. The PCR review panel chair is responsible for ensuring that all opinions are considered in a fair and equitable manner and generating the PCR review statement.

The PCR review panel members shall declare their independence and competencies prior to the review process.

If conflicts within the PCR review panel cannot be resolved, the dissenting members may add a minority statement in the PCR review statement (see ISO/TS 14071:2014, 4.5).

NOTE ISO/TS 14071:2014, Annex B, provides an example of a self-declaration form that can be used in the context of LCA critical review.

The combined competencies of a PCR review panel shall include knowledge of and proficiency in:

a) the relevant sector product and product-related environmental aspects;

b) LCA methodology and practice;

c) the relevant standards in the fields of environmental declarations, footprints and LCA;

d) the regulatory framework within the scope of the PCR;

e) the environmental declaration or footprint communication programme in which the PCR are intended to be used.

7.3 Procedures

The PCR for a Type III environmental declaration or footprint communication are normally developed and reviewed within a programme, such as a Type III environmental declaration programme. The programme operator shall define the procedures for the PCR review in the general programme instructions. The programme operator is responsible for:

a) setting up the PCR review panel;

b) organizing and evaluating the open consultation (see 6.4.4);

c) providing the PCR review statement to the PCR committee;

d) making the PCR review statement available upon request.

The PCR review may be conducted in parallel with the PCR development in order to guide the PCR committee.

7.4 Tasks of the review panel

The PCR review shall address at a minimum:

a) general information on the PCR (initiator, programme operator, registration code or other identifier);

b) scope of the PCR and definition of the product category or product categories addressed;

c) other standards applied for the product category, that are relevant to the PCR review;

d) critical evaluation of LCA-related requirements of the PCR with respect to the functional unit or declared unit;

e) system boundary;

f) life cycle inventory analysis, such as the methods of allocation, data quality requirements, electricity modelling;

g) life cycle impact assessment;

h) life cycle interpretation;

i) assumptions and limitations of the LCA calculation rules;

j) choice of indicators;

k) data source and quality requirements;

l) critical evaluation of any requirements in the PCR for documentation on additional environmental information, including:

   1) laboratory results/measurements for the content declaration;

   2) laboratory results/measurement of functional/technical performance;

m) documentation of the declared technical information on life cycle stages that have not been considered in the LCA of the product, (e.g. transport distances, product lifetime, energy consumption during use, maintenance cycles);

n) laboratory results/measurements for the declaration of emissions to indoor air, soil and water during any of the product's life cycle stages.

7.5 PCR review statement

The PCR review panel shall report in its PCR review statement:

a) the PCR have been developed in accordance with this document and ISO 14025 in the case of a Type III environmental declaration, and with ISO 14044, ISO 14046, or ISO/TS 14067 in the case of footprint communications;

b) the PCR fulfil the general programme instructions, if developed in the context of an Type III environmental declaration or footprint communication programme;

c) the LCA-based indicators, together with the additional environmental information prescribed by the PCR, provide a description of the significant environmental aspects of the product;

d) assurance that the comments and recommendations from the PCR review panel have been satisfactorily addressed;

e) any dissenting views.

8 PCR identification and registration

8.1 PCR identification

8.1.1 Identification of the PCR document

PCR shall be made publicly available in an online repository in an electronic form that is machine-readable and that can be found using commonly used search engines.

A classification system for structuring such PCR repositories should be used. The PCR shall be published in a manner that permits online searching. Different options for structuring such PCR documents repositories by a classification system are available. Commonly used classification systems should be applied. To trace a PCR document, a registration code shall be provided assigned to the PCR by the programme operator.

Where a programme operator uses an existing product classification system, or develops its own, the product classification should include a clear hierarchy, which illustrates how the product covered by the PCR relates to other similar products in the hierarchy. Display of a hierarchy facilitates the search for PCR for similar products or applications.

Upon publication, the programme operator shall assign a registration code to each PCR, which will serve as its unique identifier. Updated versions of the PCR shall be published with a new registration code.

For better understanding of which PCR to use when using PCR for specific applications, the following information should be available in connection with the registration code of the PCR:

a) scope of PCR including:

   1) the name of the product category as well as synonyms for the name of the product category in order to simplify understanding of the scope of the product category:

      NOTE 1 One category can have different denotation for different geographical regions or cultures.

   2) the products covered by the PCR through reference to a product code in a product classification system

      NOTE 2 Commonly used classification systems are preferred. A programme operator can use a proprietary product classification system for practicality and usability reasons. In these cases, the classification system needs to be publicly available, e.g. on or via the programme operator's website.

   3) practical information about the use, application or function of the product, in order to help the user of the PCR to understand in what respect the actual product category is relevant to a specific product;

   4) if the products within the product category are modelled as product systems or as information modules;

   5) the life cycle stages considered;

b) product category definitions included in the PCR and underlying product classification;

c) keywords relating to the PCR;

d) geographical coverage of the PCR, e.g. EU, USA, Global;

e) date of publication and expiration (validity);

f) standards conformance of PCR;

g) history of PCR;

h) name and contact details of the programme operator;

i) PCR committee:

   1) contact details;

   2) list of interested parties (companies/organizations) which were involved in the evaluation of the PCR as members of the PCR committee;

j) PCR review panel:

   1) contact details;

   2) where the PCR review can be obtained;

k) list of interested parties which participated in the PCR review.

The language of the PCR should be the local language, preferably with an English translation to enable others to find them if they wish to apply, use or harmonize them with the existing PCR. If no English translation is available, the title and scope should be provided in English language.

8.2 PCR registration

The purpose of registration is to make PCR available and accessible via publicly available central or regional libraries for broad dissemination.

Where a suitable central PCR registry exists, developers of PCR should register their PCR. Within a programme, the programme operator shall be responsible for registering and publishing the PCR.

Upon publication, the programme operator shall assign a registration code to each PCR, which will serve as its unique identifier. The code should reflect the hierarchical structure of the PCR published by a Type III environmental declaration or footprint communication programme. Updated versions of the PCR require a new registration code.

To maximize usability of PCR libraries, PCR should be publicly available in a hierarchical structure of product categories that is concise and preferably based on existing and widely used international classification systems or sector specific classification schemes.

9 Updating, revision and expiration of PCR

A programme operator should regularly update the PCR to reflect the best available practices, data, and methods. The PCR shall be subject to systematic revision involving interested parties no more than five years from the date of publication, in order to determine whether to be confirmed, withdrawn or revised.

NOTE Reference to existing PCR might facilitate amending the PCR under revision.

A programme operator may make changes in the PCR for the following reasons:

a) changes to general programme instructions and supplementary materials referenced by the PCR;

b) changes to overarching standards;

c) changes to secondary data sources or parameters that apply to the programme as a whole;

d) updates to methods for additional environmental information that apply to the programme as a whole;

e) expiration or obsolescence of the original PCR document;

f) technology and material changes to products in the category;

g) changes to technical and quality standards for products in the category;

h) availability of new LCA-based information generated in the relevant public or industry sector;

i) evidence that the original PCR are too restrictive;

j) the existing PCR are no longer supported by the majority of interested parties;

k) the need to resolve previously unresolved issues.

Errors in PCR shall be corrected immediately after they are discovered. Before the PCR are updated, the programme operator shall notify the interested parties of the updates and allow comments on the updates to be submitted and considered. Whenever PCR are updated, the programme operator shall publish the updated PCR.

Annex A
(informative)

Information modules

A.1 General

LCA-based data for materials, parts and other inputs that are used in the manufacture or assembly of other products may be used to contribute to Type III environmental declarations for those other products. In such circumstances, the LCA-based data for the materials, parts and other inputs are referred to as information modules and may represent the whole or a portion of the life cycle for those materials or parts. Information modules may be used to develop a Type III environmental declaration or may be combined to develop a Type III environmental declaration for a product, provided that the information modules are adjusted in accordance with the PCR for the product category.

NOTE This clause is adapted from ISO 14025:2006, 5.4.

A.2 Procedural steps of a modular approach for a product system

In this example of a modular approach a product system is broken down into several subsystems for which the pre-determined parameters required for the Type III environmental declaration are calculated before they are aggregated to obtain the predetermined parameters of the product system. Examples of subsystems are product components and life cycle stages. Pre-determined parameters may include:

— a set of impact category indicator results;

— a set of inventory results that are elementary flows;

— a set of data that do not represent elementary flows (e.g. hazardous waste).

The procedural steps of the modular approach for a product system are as follows:

a) determine product category and the relevant PCR;

b) define a product system within a product category, if necessary;

c) define the subsystems of the product system;

d) find out if information modules with Type III environmental declarations and PCR of the subsystems already exist and adapt the existing ones to be in line with the PCR of the defined product category;

e) collect and calculate inventory data for each subsystem for which no existing Type III environmental declaration could be found;

f) calculate the pre-determined parameters of each information module by impact assessment based on the inventory results;

g) verify the different information modules;

h) communicate Type III environmental declarations of the different information modules, as appropriate, together with the relevant PCR;

i) refer the different information modules to the reference flow of the product system;

j) aggregate the pre-determined parameters of the information modules to obtain the pre-determined parameters of the product system;

k) determine significant environmental issues for life cycle interpretation from the pre-determined parameters of different information modules;

l) communicate a Type III environmental declaration of the whole product system.

Environmental declarations or footprint communication and the relevant PCR can refer to an information module (see also ISO 14025).

A.3 Type III environmental declaration or footprint communication of an information module

Organizations communicate Type III environmental declarations or footprint information of information modules commonly used for LCA studies. Such organizations include:

a) providers of electricity and fuel;

b) providers of raw material;

c) providers of transport services;

d) organizations dealing with end-of-life operations.

The data of these Type III environmental declarations are published and are often part of the data sets as offered by databases.

According to ISO 14025:2006, Clause B.2, information modules may be, but need not necessarily be, a Type III environmental declaration. However, it is understood that any communication on a product that claims to be a “Type III environmental declaration” needs to have an associated PCR.

Organizations which intend to communicate Type III environmental declarations or footprint information of information modules need to work out an LCA study or a footprint study of the relevant information module and communicate it as a Type III environmental declaration, together with the PCR which needs to undergo the relevant verification.

Annex B
(informative)

Tasks for the programme operator

B.1 The programme operator's responsibilities are specified in Clauses 4 to 9. The purpose of this annex is to facilitate the understanding of those requirements by collecting them into one annex for ease of reference. This annex does not contain any additional requirements.

B.2 The programme operator is responsible for the preparation and fulfilment of the general programme instructions of a Type III environmental declarations and/or footprint communications programme according to ISO 14025, ISO 14046 and ISO/TS 14067. With respect to the development, review, open consultation, registration, harmonization and publication of a PCR the tasks include but are not limited to:

a) establishing a PCR committee, which has the task to develop the PCR (see 6.4.1);

b) providing oversight of the PCR committee (see 6.4.1);

c) notifying representatives of the interested parties about the development of the PCR and the formation of the PCR committee, so that interested parties can determine whether they wish to participate in the PCR committee or contribute otherwise to the PCR development process (see 6.4.1);

d) ensuring a balanced mix of interested party perspectives and competencies. If an interested party is excluded, this is justified (see 6.4.1);

e) documenting the process of contacting and engaging interested parties in order to make the process transparent;

f) convening the PCR committee or organizing the convenorship;

g) ensuring that the committee chair demonstrates sufficient knowledge of and proficiency in LCA Type III environmental declarations and footprint communications according to ISO 14044, ISO 14025, ISO 14046 and ISO/TS 14067;

h) ensuring that the committee chair promotes collaboration between PCR committee members and seeks contributions from them;

i) publishing the PCR committee's decisions;

j) ensuring consistency between all PCR developed within the programme (see 6.4.1);

k) informing a programme operator of having adapted a PCR to the PCR registered with that programme operator (see 6.4.2);

l) ensuring effective and transparent operating procedures for all parts of the open consultation process and evaluating the results of the open consultation (see 6.4.4);

m) developing a system for structuring PCR documents. A programme operator may use its own proprietary product classification system for practicality and usability reasons. In that case, the classification system is made available on or via the programme operator's website; (see 8.1);

n) providing a finalized PCR with its registration code according to 8.1 and submitting newly developed PCR to suitable national or international PCR libraries for broad dissemination. Updated versions of the PCR require a new registration code (see 8.2);

o) publishing the finalized PCR and making them publicly available (see 6.4.2).

B.3 The PCR for a Type III environmental declaration or footprint communication is normally developed and reviewed within a programme. It is the programme operator's task to define the procedures for the PCR review in the general programme instructions. According to 7.3 the programme operator is responsible for:

a) setting up the PCR review panel;

b) providing the PCR review statement to the PCR committee (6.4.1);

c) making the PCR review statement available upon request;

In addition, a programme operator:

— regularly updates PCR to reflect the best available practices, data, and methods. (see Clause 9);

— makes changes in the PCR for the following reasons (see Clause 9):

  — changes to general programme instructions and supplementary materials referenced by the PCR;

  — changes to overarching standards;

  — changes to secondary data sources or parameters that apply to the programme as a whole;

  — updates to methods for additional environmental information that apply to the programme as a whole;

  — expiration of the original PCR document;

  — technology and material changes to products in the category;

  — changes to technical and quality standards for products in the category;

  — availability of new LCA-based information generated in the relevant public or industry sector;

  — evidence is shown that the original PCR are too restrictive;

  — the existing PCR are not supported by the majority of interested parties;

  — the need to resolve previously unresolved issues;

— corrects errors in PCR immediately when they are discovered. Before the PCR are updated, the programme operator notifies the interested parties of the updates and allows comments on the updates to be submitted and considered. Whenever PCR are updated, the programme operator publishes the updated PCR. (see Clause 9).

Bibliography

[1] ISO 14064-3, *Greenhouse gases — Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions*

[2] ISO 15686-1, *Buildings and constructed assets — Service life planning — Part 1: General principles and framework*

[3] ISO/IEC 17025, *General requirements for the competence of testing and calibration laboratories*

[4] ISO 21930:—[1)], *Sustainability in building construction — Environmental declaration of building products*

[5] EN 15804, *Sustainability of construction works — Environmental product declarations — Core rules for the product category of construction products*

[6] Environmental information for products and services, Requirements, Instruments, Examples. Editors: Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety (BMUB), Public Relations Division, 11055 Berlin, Germany[2)]

[7] Guidance for Product Category Rule Development. 2013, Ingwersen, W., Subramanian, V., editors. The Product Category Rule Guidance Development Initiative,Version 1.0[3)]

[8] Rules P.C. Product Group Classification: UN CPC 171 and 173 Electricity, Steam and Hot/Cold Water Generation and Distribution, The International EPD System 2015[4)]

[9] Product Category Rules for Building-Related Products and Services. Part A: Calculation Rules for the Life Cycle Assessment and Requirements on the Project Report, Institut Bauen und Umwelt (IBU). 2015[5)]

1) Under preparation. Stage at the time of publication: ISO/DIS 21939:2016.

2) http://www.bmub.bund.de/en/

3) http://www.pcrguidance.org

4) www.environdec.com

5) http://ibu-epd.com/en/

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