



EPD CENTER

GENERAL PROGRAMME INSTRUCTIONS FOR THE EPD Center Programme, version 1.1

Programme name:

EPD Center

Programme operator:

CIS Center



Elena Muchnik

Director

26th of May, 2025

E: info@epdcenter.org **T:** +7 (495) 157-157-5

W: www.epdcenter.org



TABLE OF CONTENTS

LIST OF ABBREVIATIONS.....	5
INTRODUCTION	7
1. GENERAL PROVISIONS.....	7
2. PROGRAMME OBJECTIVES AND SCOPE	8
3. MAIN DEFINITIONS. NORMATIVE REFERENCES.....	9
4. PROGRAMME ORGANISATION AND ROLES.....	10
4.1 MAIN ROLES IN THE PROGRAMME.....	10
4.2 PROGRAMME OPERATOR.....	10
4.3 SECRETARIAT	11
4.4 EPD OWNERS.....	12
4.5 ADVISORY COUNCIL	12
4.6 PCR MODERATOR	13
4.7 INDEPENDENT VERIFIERS.....	13
5. PROCESS FOR PROGRAMME ADMINISTRATION. SECRETARIAT'S FUNCTIONS AND OBLIGATIONS.....	14
5.1 GENERAL PROGRAMME INSTRUCTIONS (GPI) ROLE IN A PROGRAMME ADMINISTRATION.....	14
5.2 PUBLICATION OF PCRs AND EPDs.....	14
5.3 PROCESSING OF FEEDBACK.....	14
5.4 AVOIDING MISUSE.....	15
5.5 GENERAL LCA METHODOLOGY	15
5.6 APPROVAL OF VERIFIERS. APPROVAL PROCESS, FUNCTIONS AND ROLES.....	15
5.7 MEMBERSHIP IN ADVISORY COUNCIL.....	18
5.8 MUTUAL RECOGNITION WITH OTHER PROGRAMMES.....	19
6. PROCESS FOR PCR DEVELOPMENT AND MAINTENANCE.....	19
6.1 INITIATION	20
6.2 PREPARATION	22
6.3 Open consultation.....	24
6.4 REVIEW, APPROVAL, AND PUBLICATION	25
6.5 Updates.....	27
6.6 De-registration of PCR.....	28
6.7 C-PCR Development	28
7. PROCEDURE FOR EPD DEVELOPMENT AND REGISTRATION.....	28
7.1 SELECTION OF PCR.....	29
7.2 CONDUCTING A LIFE CYCLE ASSESSMENT (LCA) STUDY BASED ON PCRS	29
7.3 TYPES OF EPDs	29
7.4 PRESENTING INFORMATION IN EPD FORMAT	30
7.5 Structure of the LCA (Life Cycle Assessment) Report for EPD Development	30
7.6 EPD VERIFICATION: OBLIGATIONS OF EPD ownerS	31
7.7 Registration and Publication of EPDs	32
7.8 AMENDING AND UPDATING EPDS.....	34
7.9 WITHDRAWAL OF EPDS FROM PUBLICATION.....	35
7.10 WITHDRAWAL OF EPDS FROM REGISTRATION.....	35
8 VERIFIERS. VERIFICATION PROCESS.....	35
8.1 INDEPENDENCE OF VERIFICATION.....	35
8.2 PRINCIPLES OF VERIFICATION.....	36
8.3 EPD Verification Procedure.....	37
ANNEX A. FORMAT AND STRUCTURE OF THE EPD.....	41
A1. EPD LANGUAGES	41
A2. UNITS AND QUANTITIES.....	41
A3. USE OF IMAGES AND GRAPHIC IN EPD	42
A4. FORMAT OF EPD.....	43
A4.1. COVER PAGE.....	43
A4.2. GENERAL INFORMATION	44
A4.3 INFORMATION ABOUT EPD OWNER.....	45
A4.4 PRODUCT INFORMATION.....	45



A4.5 LCA INFORMATION.....	46
A4.6 CONTENT DECLARATION.....	49
A4.7 ENVIRONMENTAL PERFORMANCE.....	53
A4.8 ADDITIONAL ENVIRONMENTAL INFORMATION.....	53
A4.9 ADDITIONAL ECONOMIC AND SOCIAL INFORMATION.....	54
A4.10 INFORMATION RELATED TO SECTOR EPDs.....	54
A4.11 VERSION HISTORY.....	54
A4.12 ABBREVIATIONS.....	54
A4.13 REFERENCES.....	54
ANNEX B. GENERAL LCA METHOD FOR EPD DEVELOPMENT.....	55
B1. MODELLING APPROACH.....	55
B2. DECLARED/FUNCTIONAL UNIT.....	55
B2.1 TECHNICAL SPECIFICATION, LIFESPAN, AND REFERENCE SERVICE LIFE (RSL).....	56
B3. SYSTEM BOUNDARY.....	57
B3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES.....	58
B3.2 OTHER BOUNDARY-SETTING RULES.....	60
B3.3 CRITERIA FOR THE EXCLUSION OF INPUTS AND OUTPUTS (CUT-OFF CRITERIA).....	61
B4. ALLOCATION RULES.....	61
B4.1 ALLOCATION OF CO-PRODUCTS.....	63
B4.2 ALLOCATION OF WASTE.....	64
B5. DATA AND DATA QUALITY RULES.....	66
B5.1 DATA CATEGORIES.....	66
B5.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA.....	67
B5.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA.....	68
B5.4 DATA QUALITY ASSESSMENT PROCEDURE.....	68
B6. OTHER LCA RULES.....	70
B6.1 DETERMINING RECYCLED CONTENT, BIOGENIC CARBON OR “EMBEDDED” GREEN ENERGY IN PRODUCTS VIA A MASS BALANCE APPROACH.....	70
B6.2 ELECTRICITY MODELLING.....	70
B7. SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D.....	72
B7.1 PRODUCT STAGE, A1-A3.....	72
B7.2 DISTRIBUTION/INSTALLATION STAGE, MODULES A4-A5.....	73
B7.3 USE STAGE, MODULES B1-B7.....	74
B7.4 END-OF-LIFE STAGE, MODULES C1-C4.....	74
B7.5 CONSEQUENCES OF RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D).....	75
B8. ENVIRONMENTAL PERFORMANCE INDICATORS.....	76
B9. SPECIFIC RULES PER EPD TYPE.....	77
B9.1 EPD OF MULTIPLE PRODUCTS FROM THE SAME COMPANY.....	77
B9.2 SECTOR EPD.....	78
B9.3 EPD OF PRODUCT NOT YET ON THE MARKET.....	78
B9.4 EPD OF PRODUCT RECENTLY ON THE MARKET.....	79
ANNEX C. GUIDANCE ON COMMUNICATING EPD INFORMATION.....	81
C1. EPD OWNERS LIABILITY.....	81
C2. DIFFERENT TARGET AUDIENCES.....	81



LIST OF STANDARDS

Within the framework of the functioning of the Environmental Declaration Programme "EPD Center", the provisions and terminology of the following documents and standards are applied.

In general cases, references to documents and standards in these Programme instructions are given using abbreviated headings, as indicated in the list of standards below.

- **GPI, General Programme Instructions** (as prescribed by ISO 14025).
General programme instructions for the EPD Center Programme by CIS Center, Version 1.1, date 28.04.2025. www.epdcenter.org
- **EN 15804**
CEN (2019) EN 15804:2012+A2:2019, Sustainability of construction works – Environmental product declarations – Core rules for the product category of construction products.
- **ISO 8601**
Data elements and interchange formats – Information interchange – Representation of dates and times.
- **ISO 14020**
GOST R ISO 14020-2011, Environmental labels and declarations - Basic principles
- **ISO 14025**
GOST R ISO 14025-2012, Environmental labels and declarations - Type III environmental declarations - Principles and procedures.
- **ISO 14026**
GOST R ISO 14026-2023, Environmental labels and declarations – Principles, requirements and guidelines for communication of environmental footprint information.
- **ISO 14040**
GOST R ISO 14040, Environmental management – Life cycle assessment – Principles and framework.
- **ISO 14044**
GOST R ISO 14044, Environmental management – Life cycle assessment – Requirements and guidelines.
- **ISO 14046**
GOST R ISO 14046, Environmental management – Water footprint – Principles, requirements and guidelines.
- **ISO 14001**
GOST R ISO 14001, Environmental Management Systems (EMS)
- **ISO 9001**
GOST R ISO 9001, Quality management systems — Requirements
- **ISO 21067**
GOST R ISO 21067, Packaging — Vocabulary — Part 1
- **ISO 21930**
ISO 21930:2017, Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services.
- **ISO 14067**
GOST R ISO 14067, Greenhouse gases — Carbon footprint of products — Requirements and guidelines for quantification.



LIST OF ABBREVIATIONS

AC	Advisory council
CPC	Central product classification
CPV	Common procurement vocabulary
EPD	Environmental product declaration
ESL	Estimated service life
GPI	General programme instructions
GTIN	Global trade item number
GWP	Global warming potential
ISO	International Organization for Standardization
LCA	Life cycle assessment
LCI	Life cycle inventory
LCIA	Life Cycle Inventory Analysis
NACE/CPA	Classification of products by activity
ND	Not declared
OKVED	Russian National Classifier of Economic Activities
PCR	Product category rules
REACH	Registration, evaluation and authorisation of chemicals
RSL	Reference service life
SI	International System of Units
TC-PCR	Technical Committee on Product Category Rules
UN	United Nations
UN CPC	United Nations standard products and services code



HISTORY OF VERSIONS

VERSION OF THE DOCUMENT	CHANGES
GPI version 1.0, from 23.09.2024	GPI initial version
GPI version 1.1, from 26.05.2025	<p>Throughout the document: editorial changes - misprints, duplication of text, etc.</p> <p>Added clause 7.4.1: Presenting part of the information on the LCA in the format of the product climate declaration</p> <p>Added clause 7.7.3: Publication of the climate product declaration</p> <p>Section A4.6 of Appendix A: added provisions from ISO 14021 on disclosure of secondary raw materials</p>



INTRODUCTION

In recent years, environmental responsibility and sustainable development issues have become increasingly important at both national and international levels. The problems of climate change, depletion of natural resources and pollution require solutions in the form of new approaches to the production and consumption of products. In this context, Environmental Product Declarations (EPDs) are becoming an important tool for assessing and communicating information on the environmental impact of a product at different stages of its life cycle.

The EPD Center environmental declaration programme aims to create a transparent and reliable system for assessing the environmental performance of products of manufacturers in Russia. It is based on international standards such as ISO 14025 and is designed to meet the growing demand for reliable information on the environmental characteristics of goods and services.

Every year, more and more national structures and representatives of the business sector recognise the need to implement practices to address the environmental impacts associated with the life cycle of products. This is not only due to the desire to reduce negative environmental impacts, but also to increase competitiveness in the marketplace. Companies that provide transparent and verifiable data on their environmental footprint can reap significant benefits, including improved reputation, investor attraction and customer satisfaction.

An Environmental Product Declaration provides comprehensive information on the environmental impact of a product throughout its life cycle, from raw material extraction to disposal. This approach makes it possible not only to assess current environmental performance, but also to identify opportunities for improvement. This makes the EPD an important element in the strategic management of a company's sustainability.

This General Programme Instruction provides a detailed description of the roles, procedures and requirements necessary for the preparation, verification and registration of Environmental Product Declarations.

1. GENERAL PROVISIONS

1.1. This document forms the basis of the overall administration and operation of a Programme «EPD Center» (hereinafter referred to as the Programme) on the basis of CIS Center Association for Type III environmental declarations according to ISO 14025.

1.2. A Type III environmental declaration developed in the Programme is referred to as an Environmental Product Declaration or 'EPD'.

1.3. The General Programme Instructions form the basis for the general administration and operation of the Programme.

1.4. The scope of the Programme includes any type of product from any organisation in Russia, and in particular manufacturers who wish to report/provide information to stakeholders on the environmental impacts of their products in specific impact categories at different stages of their life cycle.

1.5. The product coverage in the EPD developed under this Programme may refer either to the products of a single company or to the average product of a number of companies (association) in a particular industry sector and geographical area: "sector EPD". Similar products from the same company may be included in the same EPD if certain conditions are met. Possible types of EPDs to be developed under the Programme are described in Section 7.3.

1.6. EPDs are based on Product Category Rules providing rules, requirements, and guidelines for a defined product category.

1.7. Participation in the Programme is voluntary.

1.8. Participation in the Programme by various stakeholders is possible in the status of an EPD owner, verifier, member of the advisory council of the Programme, participant in the working group for the development of the PCR, or a party/partner interested in the development of the Programme.

1.9. The programme's organisational structure involves a number of parties whose tasks and responsibilities can be divided into four main processes:



1. Programme management and administration led by the Secretariat, assisted by an Advisory Council.
2. PCR development led by a PCR Moderator co-ordinating the work of a PCR Committee and with an invitation to a wider PCR stakeholder consultation group.
3. EPD development by organisations such as manufacturing companies or trade associations.
4. Verification of the EPD by independent individual verifiers or EPD verification bodies that have been approved by the Programme in accordance with the procedure established by the Programme.

1.10. This GPI takes into account the provisions of ISO international standards and their harmonised versions identical to the corresponding ISO international standards listed in the relevant section with the list of standards applicable to the programme. When preparing the EPD, PCR or performing the LCA, the provisions of these harmonised identical national standards may be used.

1.11. References to this document should be:

General Programme Instructions of the EPD Center Programme (GPI), Version 1.1.

Website of the Programme: www.epdcenter.org

Within the GPI, the following terminology is adopted:

- The term “shall” is used to indicate what is obligatory.
- The term “should” is used to indicate a recommendation, rather than a requirement.
- The term “may” or “can” is used to indicate an option that is permissible.

1.12. The GPI contain requirements, peculiarities and procedure for interaction of participants in the development and registration of EPDs under the Programme. EPDs registration activities under the Programme do not fall within the scope of regulation of the Russian Federal Law No. 184-FZ "On Technical Regulation" dated 27.12.2002.

2. PROGRAMME OBJECTIVES AND SCOPE

2.1 The main objective of the Programme is to enable Russian organizations to communicate quantitative environmental information on the life cycle of their products in a reliable, comparable and consistent manner in the form of a Type III environmental declaration registered with the Environmental Programme Declarations, as described in ISO 14025.

2.2 PROGRAMME OBJECTIVES:

1) Provide a voluntary Programme for verified Type III environmental declarations in accordance with ISO 14025, ISO 14040/14044, and other relevant standards or methodology guidelines, including but not limited to:

- EN 15804 and, optionally, ISO 21930 for construction products (including both goods and services),
- ISO/TS 14027 for the development of Product Category Rules (PCRs),
- ISO 14026 for footprint communication, and
- ISO 14067 for the calculation of carbon footprint-related indicators;

2) contributing to make standardised, verified, and life cycle-based environmental information a useful tool in different applications, e.g. by facilitating different applications and increasing digitalisation and digitisation;

3) Seek cooperation and harmonisation with other environmental declaration programmes (national, regional, sectoral, etc.) to help organisations expand the use of EPDs in the international market. These activities may include, but are not limited to

- Bilateral and multilateral mutual recognitions with established programme operators as encouraged by ISO 14025 and ISO/TS 14029,
- Seek participation and recognition in international LCA cooperation networks and associations,
- Participation in international activities to harmonise PCRs and standardise LCA approaches.



3. MAIN DEFINITIONS. NORMATIVE REFERENCES

These GPI use terms and definitions in accordance with ISO 14050-2020, ISO 14025-2006, ISO/TS 14027-2017, ISO 14040-2006, ISO 14040-2006, including the following terms with corresponding definitions:

3.1 **Type III environmental declaration:** environmental declaration providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information (Section 3.7.9, GOST R ISO 14050-2023).

3.2 **Type III environmental declaration programme:** voluntary programme for the preparation and use of Type III environmental declarations, based on a set of operating rules (Section 3.3, GOST R ISO 14050-2023).

3.3 **Programme operator:** body or bodies responsible for developing and maintaining the environmental information programme (Section 3.7.16, GOST R ISO 14050-2023).

3.4 **Life cycle:** Sequential and interrelated steps from the extraction of raw materials or the manufacture of products (3.7) from natural resources to final utilisation.

3.5 **Life cycle assessment, LCA:** Collection of information, comparison and evaluation of input flows, output flows, and possible environmental impacts of a product system (3.6) throughout its life cycle (Section 3.6.2, GOST R ISO 14050-2023).

3.6 **Product system:** a complex of unit processes with elementary flows and product flows (3.7), performing one or more defined functions, which models the life cycle (3.4) of products (Section 3.5.12, GOST R ISO 14050-2023).

3.7 **Product:** any goods or service (Section 3.5.12, GOST R ISO 14050-2023).

3.8 **Product category:** group of products (Section 3.11, GOST R ISO 14025-2006) that can fulfil equivalent functions.

3.9 **Product category rules, PCR:** A set of specific rules, requirements and guidelines for the preparation of Type III environmental declarations (3.1) based on life cycle assessment for one or more product category (3.8), performing an equivalent function

3.10 **PCR review:** The process by which a group of third-party representatives validate the product category rules (Section 3.7.13, GOST R ISO 14050-2023).

3.11 **Declared unit:** Quantity of products (3.7) for use as the reference unit in a Type III environmental declaration or in the exchange of information on environmental footprints based on one or more information modules. (Section 3.7.11, GOST R ISO 14050-2023).

3.12 **Functional unit:** Quantified performance of a product system (3.6) for use as a reference unit (ISO 14040:2006).

3.13 **Information module:** A module disclosed in the EPD containing information on the results of the assessment of a unit process or set of unit processes that are part of the life cycle (3.4) of the product for which the EPD is being prepared.

3.14 **Product category rules review; PCR-review:** The process by which a group of third party representatives reviews and approves the product category rules under the Programme (Section 3.7.13, GOST R ISO 14025-2006).

3.15 **Product category rules committee; PCR committee:** Group of stakeholder representatives involved in the preparation and analysis of the product category rules (3.9) on the appointment of the Programme Operator. (Section 3.7.14, GOST R ISO 14050-2023).

3.16 **Core rules:** Set of rules that provides harmonised requirements for the development of product category rules across multiple product categories (Section 3.7.15, GOST R ISO 14050-2023).

3.17 **Unit process:** smallest element considered in the life cycle inventory for which input and output data are quantified.

3.18 **Primary data:** A quantitative characterisation of a unit process or activity derived from known direct measurements or from direct or indirect calculations based on data derived from direct measurements.

3.19 **Secondary/background data:** Indirectly measured, calculated or quantified characteristic of a unit process or activity and related information within a product system or organisation that is not based on specific initial measurements.



3.20 **General data:** data used in the absence of specific primary or secondary data.

3.21 **Proxy data:** approximate data used in the absence of specific data or general data (e.g., extrapolated data).

4. PROGRAMME ORGANISATION AND ROLES

The operation of the EPD Center Programme is based on the implementation and/or consideration of the requirements and guidelines of various standards, regulations and documents in the following hierarchy (in descending order of priority):

- Complementary Product Category Rules (c-PCR),
- Product Category Rules (PCR),
- International and national standards for the development of Type III environmental declarations for a specific product category (group): ISO 21930, EN 15804 and others,
- General instructions of the EPD Center programme,
- Standards related to the operation of a Type III voluntary environmental declaration system: ISO 14025, ISO 14026, ISO/TS 14027, ISO/TS 14071,
- Standards related to the conducting of life cycle assessment (LCA) studies: ISO 14040, ISO 14044, ISO 14067, ISO/TS 14071,
- Standards related to requirements for organizations: ISO 9001, ISO/IEC 17029, ISO 14065, ISO/IEC 17065.

This hierarchy of documents and standards should be taken into account when developing EPDs, with some exceptions as described in Section 7.

4.1 MAIN ROLES IN THE PROGRAMME

The main participants in the Programme are:

- Programme Operator (see Section 4.2);
- Secretariat (see Section 4.3);
- EPD owner (see Section 4.4);
- Advisory Council (see Section 4.5);
- PCR Moderator (see Section 4.6);
- Independent verifiers (see Section 4.7).

4.2 PROGRAMME OPERATOR

4.2.1 The Programme Operator is the organisation that established the Programme and is responsible for its management and operation. Operator of the EPD Center Programme is the Association "Non-profit Partnership "Coordination and Information Center of the CIS Member States on the Convergence of Regulatory Practices" (hereinafter referred to as the "CIS Center").

4.2.2 In carrying out its activities, the Programme Operator is guided by ISO 14025 and the provisions of this GPI.

4.2.3 The main source of funding for its activities is the fees paid by organisations developing and registering EPDs, as well as funds received by the CIS Center in the course of its work in related activities.

4.2.4 The Programme Operator has a set of obligations under ISO 14025. These responsibilities are mainly distributed between the Secretariat and the Advisory Council.

4.2.5 The Programme Operator shall perform the following functions within the Programme:

- ensuring the functioning of the Programme, coordinating the cooperation between the main participants of the Programme in the course of its functioning and development;
- defining the strategic directions and objectives of the Programme;
- ensuring transparency of processes and decisions related to the Programme;
- other functions, the implementation of which may be required to ensure the functioning and development of the Programme.



4.3 SECRETARIAT

4.3.1 In order to facilitate the administration of the Programme, the Operator shall authorize the relevant department of the CIS Center – Department "Sustainable Development Practices" (hereinafter referred to as the Secretariat) to maintain the Secretariat.

4.3.2 The Secretariat shall perform the following functions within the Programme:

- prepare, maintain, and communicate the GPI,
- ensuring compliance with the provisions of the GPI by the Programme Participants/Parties,
- monitoring of changes in regulatories related to EPD, LCA and PCR on the Russian and international markets and, if necessary, updating of the Programme,
- ensure appropriate consultations for maintaining the credibility of the Programme,
- Involving and facilitating stakeholder participation in Programme activities,
- ensuring consistency of data within the Programme,
- Co-ordinating the work of the Advisory Council members and supervising the development of new PCRs,
- Establishment of a generally accepted procedure for open consultation on Programme framework and PCRs,
- ensure transparent and participatory PCR development and updating processes, compliant with ISO 14027,
- preparation of guidelines, templates, check-lists and other instruments and documents necessary for PCR development,
- preparation of templates, guidelines and other types of materials to support the EPD and LCA procedures,
- publication of the report on open consultation and PCR analysis in the development of new PCRs,
- ensure the consistency and transparency of procedures for the reviews of PCRs, and the verification of LCA reports and EPDs,
- inform the PCR moderator at least six months before the end of the validity of a PCR,
- maintain and publish a list of independent verifiers for the programme and assist companies in selecting a verifier,
- processing of EPD registration applications and making a decision on the admission of an EPD for publication based on the verifier's report and other documentation related to a particular/specific EPDs,
- manage and maintain the Programme's website: www.epdcenter.org,
- publication and maintenance of the list of PCRs and the register of EPDs under the Programme,
- assignment of registration numbers and publication of PCRs and EPDs enrolled in the Programme,
- make publicly available explanatory materials,
- coordinate the process for involving industry experts and LCA specialists in the relevant PCR committees to ensure sufficient coverage and level of expertise for each of the PCR analysis groups, as well as the organisation of working group meetings,
- establish and maintain mutual recognition agreements between the EPD Center and other established programme operators,
- follow-up that approved individual verifiers remain active in the field of environmental declarations and report the results to the Secretariat and/or Advisory Council,
- handle complaints or feedback on published EPDs or other documents, and
- handle complaints or feedback on published EPDs or other documents, and
- establish procedures to avoid the misuse of references to the programme, its logotype, ISO 14025, and EPDs published in the programme.



4.4 EPD OWNERS

4.4.1 EPDs are developed by manufacturing companies, retailers, or trade associations for their products, either independently or with the assistance of a consultants, to conduct the LCA and/or for other objectives. Organisations or associations that develop EPDs and register them under the Programme are called "EPD owners".

4.4.2 Under the Programme, EPD owners shall be responsible for:

- confirmation of the status of the sole rightful owner of the EPD and for the information disclosed in the EPD,
- data collection and calculation of environmental performance indicators - environmental impact categories and inventory analysis categories, based on the LCA, as well as for other information to be included in the EPD in accordance with the requirements of the relevant PCRs and the provisions of the GPI,
- preparation of the LCA report (termed "project report" in EN 15804),
- having the LCA report and the EPD independently verified,
- applying for registration and publication of the EPD to the Secretariat by submitting the documentation prescribed by the Programme,
- updating the data in the current versions of the EPDs during its registration and publication period,
- providing the Secretariat with correct invoicing information and to timely pay fees,
- informing the Secretariat in case of updated contact or invoicing information,
- correct usage of EPD Center logotype in accordance with applicable laws, rules, and standards,
- informing the Secretariat of the decision to deregister the EPD and publish it on the Programme's website.

4.5 ADVISORY COUNCIL

4.5.1 The Advisory Council is a form of cooperation of organizations and/or individual experts within the Programme when carrying out works on the creation and analysis of PCRs, assessing the relevance and, if necessary, adjusting the overall methodology of the LCA within the Programme, as well as assessing the competence of verifiers when approving them within the Programme.

4.5.2 More detailed requirements for candidates to be AC members, as well as a more detailed description of their functions, tasks, rights and obligations, may be set out in a separate regulation on the AC approved by the Programme Operator, which shall also be made available upon request to any interested party.

4.5.3 The Programme Secretariat provides methodological support to the work of the AC and monitors and controls its activities.

4.5.4 AC decisions are taken at respective meetings, in person or in absentia.

4.5.6 The Advisory Council shall perform the following functions within the Programme:

- acting as a PCR review panel to review and approve draft PCRs, edited following open consultations,
- preparation of proposals for updating and complementing the overall LCA methodology to be used for the preparation of EPDs, as well as proposing actions for further elaboration and development of methodological and technical issues related to LCA within the Programme,
- supporting the Secretariat in technical and methodological issues related to LCA and PCRs,
- reviewing applications and approval of experts in LCA/EPD/PCR as individual verifiers of the Programme, as well as preparation of proposals for tracking and monitoring of their competencies,
- performing spot checks of individual verifiers to ensure that the verification procedures performed by individual verifiers are performed in accordance with the provisions of this GPI.



4.6 PCR MODERATOR

4.6.1 The PCR Moderator is appointed by the Programme Operator to coordinate the PCR development.

4.6.2 The PCR Moderator shall perform the following functions within the Programme:

- guiding and coordinating the work on the preparation of the draft PCR by the PCR committee,
- involvement of LCA/EPD/PCR experts, industry experts and other stakeholders to participate in the development of the PCR as part of the PCR committee,
- promote interaction and co-operation among PCR committee members, including for the purpose of attracting voluntary contributions (funding) for PCR development,
- consulting stakeholders on the development of the relevant PCR as the contact person for the PCR Committee,
- submitting the PCR development schedule to the Secretariat and informing the Secretariat of any changes to the schedule during the PCR development,
- development of proposals on the necessary coverage of types of products within a homogeneous group (category) for inclusion in the relevant PCRs with indication of OKPD-2 codes and, if necessary, UN CPC codes,
- involvement of stakeholders to participate in open consultations on the PCR,
- organizing and providing feedback to stakeholders during the open consultation process,
- collecting and processing comments from PCR committee members,
- moderating the procedure for adjusting the draft PCR on the basis of comments received during the open consultations, summarizing the processed comments (with their justification) and submitting the relevant documentation to the Secretariat,
- notifying the stakeholders involved in the PCR development about the results of the commission's work and the publication of the PCR,
- coordinating the process of receiving feedback on the PCR during its validity period, e.g., to gather proposals for changes in upcoming PCR revisions,
- initiating the procedure for updating the PCR at least six months before the end of its current validity period.

4.6.3 The moderator of the PCR shall be indicated as a contact person in the PCRs, the development of which he/she coordinates. If the moderator of the PCR resigns, the moderator of the PCR shall provide the Secretariat with information on a person who can take over this role and whose contacts will be listed in the PCR to receive feedback from stakeholders.

4.7 INDEPENDENT VERIFIERS

4.7.1 Verification of EPDs within the Programme shall be performed by approved verifiers - individual verifiers or accredited validation and verification/certification and audit bodies under national or international accreditation schemes (see Section 5.6)

4.7.2 The list of approved individual verifiers and verification bodies is available on: www.epdcenter.org.

4.7.3 Independent verifiers shall perform the following functions within the Programme:

- to independently seek assignments for verification,
- before accepting a task for verification – perform a self-assessment procedure in accordance with clause 4.7.4,
- to provide the Secretariat with up-to-date contact information for individual verifiers and each verifier in accredited bodies,
- to improve and build competences in life cycle assessment, environmental product declaration, rules and requirements of the EPD Center Programme and other standards/regulations related to the professional area of activity,
- to provide documentation upon request to the Secretariat proving that the individual verifiers remain active in the field of environmental declarations,



- to inform the Secretariat if they are no longer working on environmental declarations or are no longer looking for verification assignments. They will then be removed from the list of approved verifiers on the Programme website.
- 4.7.4 Before accepting a verification task as part of the self-assessment procedure, the verifier shall to:
- ensure that he/she/they have the necessary knowledge and expertise of the product types within the product category, industry and relevant product standards covered by the EPD,
 - assess whether the impartiality requirements (see Section 8.1) for the relevant verification task are met,
 - to ensure that they have the necessary level of knowledge of a language to fulfil the verification task of an EPD developed in English or other international languages.
- 4.7.5 After being contracted to perform a verification task, verifier shall to:
- review the EPD based on the GPI and a valid PCR, including:
 - i the underlying data used for the LCA calculations,
 - ii the procedures for calculations based on the LCA,
 - iii the presentation of environmental performance results,
 - iv the presentation of additional environmental, social, and economic information, and any other information included in the declaration.
 - document the review in a verification report in Russian and/or in English,
 - inform its customers (companies applying for verification) that registration and publication of EPDs is a mandatory part of EPD development in accordance with ISO 14025 and these GPI,
 - fulfil any obligations within the scope of its responsibilities in accordance with the provisions of these GPI during the validity period of the EPD established at the time of initial verification.

5. PROCESS FOR PROGRAMME ADMINISTRATION. SECRETARIAT'S FUNCTIONS AND OBLIGATIONS

5.1 GENERAL PROGRAMME INSTRUCTIONS (GPI) ROLE IN A PROGRAMME ADMINISTRATION

The GPI shall be available at the website www.epdcenter.org. Minor updates or corrections of errors in the GPI shall be made as necessary. The Secretariat shall update the GPI as standards, normative and other documents related to the area of the Program's activities are updated, including through consultations with stakeholders, if necessary. The names of organisations involved in the development of the Programme shall be publicly available. Old versions of the GPI should be active in parallel with the new version during a transition period. The transition period shall be at least 90 days. Information on such transition periods shall be published at www.epdcenter.org.

5.2 PUBLICATION OF PCRs AND EPDs

PCRs and EPDs published in the programme shall be made available by the Secretariat on www.epdcenter.org together with relevant complementary information and supporting materials. EPDs shall be published exclusively within the framework of this Environmental Declaration Programme. Any interested party is allowed to refer to the information published on the Programme's website.

5.3 PROCESSING OF FEEDBACK

A complaint, feedback or suggestions (hereinafter referred to as "feedback") can be sent to the Programme Secretariat to the mail info@epdcenter.org with the subject line "appeal" to the registered and published EPDs, other documents published by the Programme or to verifiers approved by the Programme. In the signed feedback letter it is necessary to indicate the name of the organisation, full name, contact details (webmail, phone, postal address), reference to the point of the GPI or other document of the Programme, ISO 14025 or other standard, as well as the date of sending the feedback.



Upon receipt of a feedback, the Secretariat should promptly process it and contact the affected organisations, if necessary. When considering a request related to a registered and published EPD, the Secretariat may de-register and de-publish the affected EPD pending review of the request or corrective action by the owner of the EPD. If no corrective action is taken within a reasonable period of time, the Secretariat may deregister and de-publish the EPD (see Section 7.9 and 7.10)

5.4 AVOIDING MISUSE

The Secretariat should strive to avoid misuse of the Programme documents (templates) and its logo, the provisions of ISO 14025 as well as the information provided in the EPDs registered in the Programme.

According to ISO 14025, Type III environmental declarations are to be administered by the programme operator. Information should be available at www.epdcenter.org to refer to this requirement of the standard.

The EPD Center Programme logo is not a Type I eco-label and should not be used in a way that could be confusing. Therefore, the use of the logo alone, without any other information, is only allowed in official documents prepared by the EPD Center Programme, e.g. in the PCR. Other options to use the logo separately may be accepted after agreement with the Secretariat.

5.5 GENERAL LCA METHODOLOGY

The general LCA method to be used in EPDs published in the EPD Center is described in Annex B.

Methodological aspects that require more frequent updates than those specified in the GPI may be presented on the website in the form of additional requirements, recommendations or clarifications. One such example is the list of characterization factors for the basic (main) impact categories disclosed in the Program's EPD.

In case it is necessary to meet the market demand for information on the environmental impact of products based on the LCA approach for certain markets, PCRs or specifics of application of such information, the Programme operator may approve other methodological recommendations (guidelines) to update or override the general LCA methodology from Annex B.

5.6 APPROVAL OF VERIFIERS. APPROVAL PROCESS, FUNCTIONS AND ROLES

Only verifiers approved by the Programme may perform verification of EPDs. Their competence and qualifications shall be checked, approved and monitored either by the Programme operator (for individual verifiers) or by accreditation bodies in accordance with the Table 1.

Table 1. Authority verifying the competence and qualifications of different types of verifiers.

VERIFICATION TYPE	POSSIBLE VERIFIERS FOR THE VERIFICATION TYPE	THE BODY VERIFYING COMPLIANCE WITH THE PRESCRIBED COMPETENCE REQUIREMENTS
EPD verification	Approved individual verifiers	Secretariat with the support of the Advisory Council
	Accredited validation and verification/certification and audit bodies	Accreditation bodies

- Verification of competency requirements and tracking of verifiers' performance of their obligations under the Programme shall include the following activities:
 - verification of the verifier's impartiality, analysis of supporting documents demonstrating his/her competence and responsibility for decisions (quality system, if any),
 - on-site inspection, and analysis of the projects conducted or in the process of verification (if necessary),



- oversight (tracking and verification) of the verifier's procedures.

An updated list of approved verifiers should be available at www.epdcenter.org.

5.6.1 Competence requirements of verifiers

The verifier (individual or team of experts within a validation and verification/certification and audit body) shall be independent (see Section 8.1) and have the following competences:

- general competencies in validation and verification/certification and auditing (for accredited validation and verification/certification and auditing bodies)¹,
- specific competencies related to EPDs and verification, including:
 - general knowledge of the relevant product manufacturing processes and environmental impacts associated with the product life cycle,
 - experience with standards relevant to the specific product and industry sector in which the verifier intends to verify, or practical experience in the relevant industry sector,
 - knowledge of and practical experience in the application of the LCA methodology, including the provisions of ISO 14040-14044,
 - knowledge of and experience with relevant standards in the area of environmental labeling and environmental declarations including ISO 14020, ISO 14025, ISO 21930 and EN 15804 and other appropriate international standards,
 - knowledge of the framework of these GPI,
 - knowledge of the provisions of GOST R 57625-2017/ISO/TS 14071:2014 "Environmental Management. Life cycle assessment. Processes of critical analysis and expert reviewer and reviewer competencies", as well as general provisions of GOST R ISO 19011-2021 "Conformity assessment. Guidelines for auditing of management systems"
 - knowledge of the general regulatory framework of the country or market in which the Environmental Product Declaration Programme is being implemented, and
- sufficient proficiency in English to read and understand the GPI, the PCR and the EPD, and to document the verification in a verification report in English (if relevant).

5.6.1.1 Specific competence requirements for accreditation/certification bodies

The following requirements apply to the team of experts conducting verification at the validation and verification/certification and audit body:

- at least three years of audit experience in a specific area of activity, and
- at least three on-site audits when the EPD is verified by a more experienced verifier,
- in case verification of the EPD is performed by a body that does not have the necessary competence among its staff, they should have such competence at the level of the implemented management system (SM) that allows:
 - determine the degree of sufficient competence (as described above) required to conduct the audit,
 - hire or contract competent personnel to perform verification and ensure that they are properly trained,
 - ensure that project evidence collection and data verification procedures are properly carried out.

5.6.1.2 Specific competence requirements for individual verifiers

The requirements for the qualification of an individual verifier are:

- At least five years of documented experience as a practitioner and/or reviewer/verifier in the field of LCA, carbon footprint or life cycle environmental impact of products (according to ISO 14040/14044/14067 or similar standard), and

¹ General requirements for the competence of verification/certification and audit bodies are specified in GOST R ISO/IEC 17029-2022 "General principles and requirements for validation and verification bodies" (subsection 7.3) and GOST R ISO/IEC 17065-2012 "Conformity assessment. Requirements for bodies for certification of products, processes and services" (Sections 6.1 and 6.2), respectively



- at least five documented critical analyses (ISO 14044-2019, clause 3.45) of LCA studies conducted within a maximum of 5 years prior to the application in accordance with the requirements of the critical analysis according to ISO 14044 (or current harmonized national versions of the standard), verification of Type III environmental declarations in other programs. In the latter case, there should also be verification of at least one LCA study that includes assessment of multiple environmental impacts,
- higher education or confirmed advanced training in the specialty (field): "environmental engineer" / "environmental management" / "environmental monitoring" / "environmentalist-natural resource manager" / "environmental analyst" / "environmental protection" / "technosphere safety" / industrial and civil engineering (for approval as an EPD verifier for construction products).

In addition to these requirements, general auditor skills and regular audit or certification experience are an advantage but not a requirement.

If an independent verifier participates in a training course (business game) organized by the Programme Secretariat (in person or in absentia), the requirements for completed critical analysis procedures will be reduced to three. Participation in product certification activities or training may also be taken into account when assessing the competencies of verifier applicants.

5.6.2 Approval of validation and verification /certification and audit bodies

Validation and verification/certification and audit bodies, to be able to verify the EPD within the Programme, shall be accredited in a national or international accreditation scheme in accordance with GOST R ISO 14065-2022 (or ISO 14065-2020) and GOST R ISO/IEC 17029-2022 (ISO 17029) standards, or in accordance with GOST R ISO/IEC 17065-2012 (or ISO/IEC 17065-2012). The verification of competence requirements shall also take into account the provisions of this document. In particular, the assessment of competence may also refer to the verification of competence in the production processes and characteristics of a particular product or industry sector. Accreditation of verification and certification bodies shall be carried out by an authorized accreditation body (e.g. Russian Federal Service for Accreditation²).

The EPD Center Environmental Declarations Programme may also approve validation and verification/certification and audit bodies that participate, meet the requirements and have been approved by the European Accreditation Cooperation (EAC)³ or the International Accreditation Forum Multilateral Recognition Arrangement (IAF MLA)⁴ or the relevant multinational cooperation agreement, complying with the provisions of ISO/IEC 17011:2017 (GOST ISO/IEC 17011:2018). Such bodies, if they wish to become verifiers of the Programme, shall undergo additional training on the provisions of the core documents of the EPD Center Programme.

5.6.3 Approval of individual verifiers

Experts in LCA and EPD may be approved to carry out EPD verification as an individual verifiers. Approval as individual verifiers is not limited to specific product categories, but competence in a specific product category (group) should be assessed independently by the verifier for each verification assignment. Approval as an individual verifier allows verification of EPDs for individual products or product groups and industry-specific EPDs.

As standards GOST R ISO/IEC 17065-2012 (ISO/IEC 17065-2012) and GOST R ISO 14065-2022 (ISO 14065-2020) or equivalent standards for conformity assessment bodies, are not applicable for individual LCA/EPD experts, a separate procedure described below is used for checking competence and qualifications, following the rationale of the standards, which specifically secures their independence. To start the evaluation procedure as individual verifier, the applicant shall provide the Secretariat with:

- an application form (the template is available on www.epdcenter.org),

² www.fsa.gov.ru/

³ www.european-accreditation.org

⁴ www.iaf.nu



- a CV demonstrating:
 - compliance with the general and specific competence requirements, and
 - any formal qualifications or training related to LCA, EPDs, and/or auditing practice,
- a description of the verifier's own processes for managing verification activities:
 - a process for managing, storing, and maintaining client-confidential data and information,
 - a process to ensure sufficient knowledge and experience of the product group, relevant standards for the product group, and the geographical area for the specific verification task,
 - a process for maintaining the independence of the verification and the role as individual verifier, including identifying, and eliminate or minimise potential threats to independence,
- references to (or annex to) the relevant documentary evidence in the application to the Secretariat.

The above documentation shall be submitted in Russian or English. If the documentation is submitted in a language other than Russian and English, a certified translation of the documents into Russian or English shall be submitted. The assessment of competence and approval of the candidate individual verifiers shall be carried out by the Advisory Council and the Secretariat. Any feedback or complaints about the approval of individual verifiers shall be carried out in accordance with the procedure described in Section 5.3. The decision to approve individual verifiers may be revoked due to misconduct of the approver or for other reasons.

The Secretariat and the Advisory Council reserve the right to evaluate the first EPD verified by an independent verifier to ensure that the EPD and the verification procedure meet the requirements of the Programme. Approved individual verifiers shall inform the Secretariat of the first verification to allow the Secretariat and the AC to plan such evaluation. The Secretariat and the AC may also conduct additional checks of future verifications by individual verifiers to ensure that the quality of the procedure is remaining appropriate.

Maintaining the competence of the individual verifier

Verifiers shall maintain and develop their competence through continuous professional development and regular participation in verification procedures or similar audits. To maintain competence and active status within the Programme, the verifier shall annually undertake:

- at least one verification of the EPD, or
- one LCA study from which an EPD is developed, or
- activities to develop or update the PCR in the role of moderator or participant in the PCR committee.

The Secretariat initiates and performs an annual evaluation of the documentation received from the verifier and reports the results to the Advisory Council. It is the verifier's responsibility to provide evidence of their verifier status on an annual basis. Inactive verifiers shall no longer perform verifications and shall be removed from the Programme's list of approved verifiers at www.epdcenter.org.

The verifier is responsible for providing updated contact information for publication on www.epdcenter.org. If the verifier is no longer engaged in verification assignments, he/she should contact the Secretariat to be removed from the list of verifiers approved by the Programme at www.epdcenter.org.

5.7 MEMBERSHIP IN ADVISORY COUNCIL

The Advisory Council shall consist of at least five experts in the field of LCA, EPD and/or production/operation processes of the product group covered by the Programme. The application for joining the Program's AC shall be sent to the secretariat with up-to-date contact details and in a form approved by the Programme Operator. The application form for joining the Program's AC shall be made publicly available by the Secretariat on the Program's website or available upon request.



When forming the expert group of the AC, it is necessary to strive to attract experts with specialized knowledge, experience and competences in different product groups (categories) to ensure the independence and quality of the PCR analysis. To obtain additional expertise for each individual PCR, external experts in the field of production and other processes related to the products for which PCRs are developed may be consulted.

Membership of the AC is voluntary, based on needs expressed by AC in terms of skills or ability to fulfill their roles and suggestions from EPD stakeholders. AC members should be listed on the Program's website at www.epdcenter.org. Interaction between the Programme stakeholders and the AC members shall be ensured through the Secretariat.

5.8 MUTUAL RECOGNITION WITH OTHER PROGRAMMES

PCRs developed and registered under the EPD Center Programme may be mutually recognised with other environmental declaration programmes in accordance with the international standard ISO 14025 or an appropriate harmonised national standard, by signing a mutual recognition agreement. Such agreements should, where possible, take into account the requirements of ISO/TS 14029 and, as a minimum, should include at least the following provisions:

- the scope of mutual recognition (e.g. recognition only for registered EPDs; or only for registered EPDs for a specific product category (group)),
- license fee structure,
- procedures for harmonising PCRs and the PCR development process,
- verification procedures,
- procedures for registration, publication and updating of EPDs/PCRs,
- verification procedures,
- procedures to ensure that the conditions for mutual recognition remain in force,
- procedures for determining the basic provisions and processing feedbacks after the termination of a mutual recognition agreement.

A mutual recognition agreement does not necessarily mean that the information contained in the EPD is comparable, as EPDs from different programmes may not be comparable.

The use of another program's logo is subject to the terms and conditions and rules for the use of the other program's logo, which may also be spelled out in a mutual recognition agreement.

A list of mutual recognition agreements in force is published at www.epdcenter.org.

6. PROCESS FOR PCR DEVELOPMENT AND MAINTENANCE

Product Category Rules (PCR) provide rules and guidelines for developing EPDs for specific product categories. They shall be used together with the GPI, and relevant reference standards, when developing EPDs. A PCR should enable different practitioners to generate consistent results when assessing products of the same product category, to as far as possible support comparability of products within a product category.

The development of a PCR is a process that includes the following steps:

1. Initiation (see Section 6.1)
2. Preparation (see Section 6.2),
3. Open consultations (see Section 6.3), and
4. Review, approve and publish the PCR (see Section 6.4).

PCRs shall include requirements to ensure comparability within a product category (group), data requirements and product system modeling rules. The PCR requirements shall take into account the requirements described in this document.

Any non-compliance of the PCR with this GPI shall be documented and shall be subject to approval during the analysis of the PCR. The procedure described in the following sections is in accordance with ISO/TS 14027.



The PCRs in the EPD Center Programme shall be developed and published in Russian. Translations of the PCR into other foreign languages may be published in addition to the Russian language version, but the Russian language version shall prevail in case of any discrepancies.

The PCR should be based on one or more LCA studies conducted in accordance with ISO 14044/ISO 14044 and other relevant LCA-based “environmental footprint” studies, including any supporting studies performed in parallel with the development of the PCR. If applicable, the PCR committee should evaluate relevant scientific articles available or submitted to the AC in preparation for the development of the PCR. Supporting studies should be referenced in the final version of the PCR, but need not be publicly available.

PCRs should address all environmentally relevant aspects of the life cycle of the covered products.

The PCR development process should be carried out by the PCR committee under the guidance of the PCR moderator, while the Programme operator should coordinate the development process (see Section 4). The Programme’s AC approves the final version of the PCR before publication. The Programme Operator may terminate the development of the PCR, e.g. in case of repeated delays or non-compliance with the comments received during the PCR review procedure.

After publication, the PCRs can be updated (see Section 6.5) and later deregistered if they have expired (see Section 6.6)

The development of the PCR should follow recognized approaches in an open, transparent and participatory process. For example, involving the following stakeholders:

- industry associations and stakeholder organizations,
- educational or scientific institutions engaging LCA/EPD experts, or
- individual organizations if they have the necessary in-house expertise or have decided to engage external experts on LCA/EPD.

The Programme Operator retains the copyright on the draft and final version of the PCRs to ensure that the PCR can be published, updated if necessary and made available to all organizations for the development and registration of EPDs. The stakeholders involved in the development of the PCRs shall be identified in the final document and made available on the Programme website.

6.1 INITIATION

6.1.1 Define the product category

The definition of the product category covered by a PCR shall, as far as possible, be based on the function of the product, i.e., so that the same functional unit may be applied to products within the scope of the PCR. When determining the scope of a product group (category), the following should be taken into account:

- primary and secondary functions of the product,
- price elasticity, i.e. the interchangeability of two products in such a way that an increase in the price of one leads to an increase in the price of the other,
- results of screening (analysing) existing literature on LCA for a group (category) of products,
- OKPD-2 and/or (UN) CPC code(s),
- existing product group (category) definitions and under similar schemes/systems/programmes (e.g. Type I ecolabels), national or international standards.

The definition and establishment of a product group (category) for a PCR should take into account existing PCRs, industry structure, potential application area and the size of the affected stakeholder group.

The scope of the PCR may be revised during the PCR development process.

The definition of the product group (category) should include commonly used synonyms for the name of the product group (category), as well as information on which similar or related products are not in the scope of the PCR.



The programme operator has the right to refuse to develop the PCR for certain groups (categories) of products.

6.1.2 Consider available PCRs

The adoption of an existing PCR shall be preferred over developing a new PCR.

The non-applicability of existing PCRs shall be justified. In order to avoid duplication of the scope and application of the PCRs, the provisions of the PCRs already in force under the Programme should be taken into account.

Existing PCRs available in other programmes shall also be considered.

In some cases, this Programme may recognize and apply the PCRs of other environmental declaration programs operating under ISO 14025 if they meet the requirements and scope of this GPI. Approved PCRs from other programs may then be used for the development and registration of EPD under the EPD Center Programme, provided that the requirements of Section 7.1 are met.

The programme operator may establish agreements for mutual recognition of PCRs with other programme operators, to enable adoption of their PCRs. Information about such agreements should be available on the website.

Consideration of international standardized methodologies

If there are other national and internationally recognised standards, standardised methodologies and guidelines that act as PCR or contain recommendations for the development of PCR for certain groups (categories) of products, and these recommendations are widely accepted and applicable, it shall be possible to develop and verify EPDs in accordance with such standards or recommendations, even if they do not fully comply with the Programme requirements. The decision on the possibility to apply such documents within the Programme shall be taken by the Secretariat and may be supported by the AC, if necessary.

If no suitable valid PCRs have been identified for a given product group (category), the development of the PCR shall proceed according to the procedure described below.

6.1.3 Appoint a PCR moderator

PCR development is coordinated by a PCR Moderator (see Section 4.6 for a list of the roles). The PCR Moderator is appointed by the Secretariat based on an application.

6.1.4 Form the PCR committee

The PCR moderator should have project management skills, specialized knowledge in EPDs, production processes and product properties, and at least a basic knowledge of LCA.

PCRs should be developed in an open and collaborative manner by a PCR committee that is established and coordinated by the PCR moderator.

The composition of the PCR committee should be balanced and include as many stakeholders from the geographical area of the PCR as possible, such as representatives of different companies and industry associations, to ensure that the final PCR is widely accepted and of high quality.

The procedure for engaging stakeholders, excluding them, or considering their refusal to participate should be documented. Exclusion from the PCR committee should be justified and documented.

Potential stakeholders in the development of the PCR may include:

- producers and consumers of a given product category (group) or their representatives,
- experts having special knowledge in the field of production and application of a given category (group) of products,
- a party with a financial interest in promoting a given product category (group),
- operators of other programs,
- PCR developers in other programs, for national standards and/or for similar product categories,



- other representatives possessing special knowledge of the given category (group) of products (its properties, physical, chemical and environmental characteristics, peculiarities of its storage, use, disposal and utilization).

The PCR Committee as a whole should have competencies in LCA and in the key life cycle processes of the product group (category) covered by the PCR.

6.1.5 Plan the PCR development

The PCR moderator develops a schedule for PCR development and is responsible for in-person or online meetings of the working group. The schedule shall include the expected dates of achievement of key PCR development milestones. The PCR moderator shall inform the Secretariat if the schedule is revised.

6.1.6 Announce for PCR development

The Secretariat shall inform the participants and stakeholders of the Programme about the launch of the development of the PCR by publishing relevant information on the website www.epdcenter.org or through other communication channels such as publication of a newsletter, news on social media, informing organizations directly.

6.2 PREPARATION

6.2.1 Use of PCR template

The relevant template prepared by the Secretariat and available at www.epdcenter.org should be used in the development of the PCR. Any deviations from the PCR template should be documented and agreed during the PCR review (see Section 6.4.2).

6.2.2 Content of EPD, based on LCA method in PCR

The development of the PCR should be based on the general LCA methodology used in the Programme and described in ANNEX A, but should contain more detailed explanations and guidance in relation to the relevant product group (category). Further clarifications and guidance should be based on supporting research, results of literature review, expert assessments by the LCA and the PCR committee, comments and suggestions received during the open discussion and analysis of the PCR. Detailed clarifications and guidance could, for example, address:

- definition of the declared/functional unit;
- definition of the useful life taken as the reference service life, where applicable;
- description of the boundaries of the production system, including representation through a scheme (block-diagram) of the system;
- cut-off criteria;
- allocation rules;
- data quality requirements and underlying specific or generic data;
- selecting a specific database for LCA if some data are important to the final outcome;
- environmental indicators required to be declared in the EPD (see Section 6.2.3);
- product service life.

To ensure coordination between linked PCRs, a PCR sector coordinator may be appointed for certain product groups (categories) such as food and agriculture. The coordinator should assist the Programme operator and the PCR committees by suggesting ways to harmonize new and existing PCRs.

If there are PCRs in the Programme that are related to the PCRs under development (e.g. covering part of the life cycle of the under consideration), they should be referenced in the PCRs under development for harmonization between relevant product groups (categories) and within supply chains.



6.2.3 LCA indicators

ISO 14025 (ISO 14025 Section 7.2.2) requires that all relevant environmental aspects of products throughout their life cycle shall be considered and be a part of the EPD based on the PCR. The use of environmental aspects other than ISO 14025 shall be justified.

The Program website should provide a standard set of life cycle impact assessment (LCIA) and life cycle inventory (LCI) indicators be declared in EPD under the EPD Center Programme, as well as the relevant LCIA and LCI methods. The requirements or recommendations contained in the PCR may differ from the Programme's standard list of LCIA indicators.

Such deviations should be justified during the PCR development process and based on:

- results and interpretation of confirmatory studies of the LCA, including the use of normalization and weighting of results to determine the most relevant impact categories,
- literature review (LCAs and non-LCAs) on relevant impacts for a given product category (group),
- review of key environmental issues related to the product category (group), e.g. from the perspective of LCAs, civil society, consumers and other stakeholders, for the geographical area of application of the PCR,
- an overview of the requirements of other standards or methodological guidelines relevant for the product category (group), with which harmonisation is desirable (e.g. EN 15804 for building materials and products).

At the same time, if the PCR specifies LCIA and LCI indicators that differ from the standard set of indicators for the programme published on the website, it is necessary to provide a description of the inventory and/or impact assessment methods to be used, with references to the original source and the adopted version of the methods and characterisation factors (coefficients). Such indicators should be based on international standards, the results of scientific work published in peer-reviewed scientific journals or other recognised sources.

The selection of LCIA and LCI indicators should take into account their relevance and importance for a given product group (category). The selection of indicators should also take into account the scope of the PCR, regional aspects or product requirements, and the level of sophistication of the methodologies underlying the indicators, so as not to mislead EPD users. In addition, they should only be applied to those stages (modules) of the life cycle for which such information is relevant.

To ensure consistency between product groups (categories), the recommendations and requirements for LCIA and LCI indicators prescribed by the PCR for similar and/or related product groups (categories) should be taken into account.

Where the selection of indicators is based on the pursuit of consistency with international standards or other external documents containing product category (group) rules, PCRs should include a statement that the harmonisation/adoption of indicators from external PCRs does not imply that the EPDs can be considered harmonised or consistent with the provisions of the external PCRs. The harmonisation/adoption of external PCRs should take into account all provisions of the external PCRs, not only the parts related to the selection of LCIA and LCI indicators..

6.2.4 Additional environmental information

Environmentally relevant information not covered by the LCA indicators may be declared in the EPD as additional environmental information.

The PCR shall specify which, if any, additional environmental information that is required or recommended to declare in the EPD and, if relevant, provide guidance for deriving and/or verifying the information (e.g. in terms of method to use or certification scheme to adhere to).

The PCR may contain proposals for disclosure of additional environmental information in respect of a given group (category) of products, as well as additional requirements for submission and certification of reports on additional environmental information.



6.2.5 Select additional social and economic information

The EPD may disclose social or economic information that differs from that disclosed in the LCIA and LCI indicators section of the EPD. For example, this may be information disclosed within the relevant reporting units (modules) of the Global Reporting Initiative (GRI).

6.2.6 Define rules for comparability

Rules for ensuring comparability of EPDs based on PCR shall be defined with reference to ISO 14025 Section 6.7.2, with additional supporting information if relevant for the product group (category).

6.2.7 Quality check before consultation

When the PCR Moderator and PCR Committee have finished a draft PCR for open consultation, the draft shall be submitted to the Secretariat. The Secretariat with the help of AC should check the draft before the open consultation to ensure that no obvious and unjustified contradictions to the GPI exists, to make editorial changes and to suggest other improvements for clarity.

6.3 Open consultation

The open consultation shall be a transparent, open, and internet-based process that enables all interested parties to contribute, thus ensuring credibility and acceptance of the final document.

6.3.1 Identify the PCR stakeholders consultation group

Stakeholders invited to participate in the open consultation form a PCR stakeholder group. This group should be informed of the launch of the open consultations.

The identification of relevant stakeholders to be involved in the open consultations should be carried out in cooperation between the PCR moderator, the PCR Committee and the Secretariat, on the basis of a list of stakeholders proposed by the PCR moderator or the Secretariat.

The composition of the PCR stakeholder group for the open consultation should be such that it represents the expertise of different sectors of industry and society with both national and international relevance to the PCR under development.

6.3.2 Prepare for open consultations

Open consultations should take the form of submitting suggestions and comments on the feedback and suggestions summary form provided by the Secretariat, with the PCR moderator coordinating the comment collection process. Open consultations may also include face-to-face or online stakeholder meetings with the Secretariat and the PCR committee. Comments, observations and suggestions received during the open consultations should be documented and taken into account in the final draft PCR.

6.3.3 Initiate the open consultations

Open consultations should be conducted in the form of an open forum (online forum).

The open consultation is initiated by the Secretariat with the support of the PCR moderator and includes the following steps:

- publication of the draft PCR,
- publication of a template for comments,
- an announcement of the open consultations at www.epdcenter.org,
- an e-mail invitation to the PCR stakeholders consultation group announcing that the draft PCR is available and open for comments.

When notifying interested parties, the letter shall also include the following information:

- the deadline for consultation,
- a brief instruction on the procedure for submitting comments and observations on the developed PCRs.



Public consultations start no earlier than eight weeks from the start of the PCR development process and continue for eight weeks for new PCRs. The timeframe may be revised downwards for updated PCRs (see Section 6.5).

6.3.4 Collect comments during open consultation

During the open consultation period, the PCR moderator collects and processes stakeholder comments. If necessary, thematic offline or online meetings can be initiated.

6.4 REVIEW, APPROVAL, AND PUBLICATION

6.4.1 Prepare updated draft PCR

The PCR moderator and the PCR committee are responsible for preparing an updated draft PCR based on the comments received and processed during the public consultations.

The PCR moderator and the PCR committee shall prepare an open consultation report that includes a summary of the open consultation process, the participants in the open consultation, the comments received and how they were considered. Refusal to accept particular comments shall be justified. The PCR moderator and the PCR committee shall also provide targeted responses to all stakeholders who submitted comments during the open consultations.

The PCR moderator provides the Secretariat with an updated draft PCR and a report on the open consultations. The Secretariat prepares and publishes a summary of the open consultations, including decisions on all comments submitted. The names or contact details of stakeholders who submitted comments shall be published in the summary only with the consent of the affected stakeholders.

6.4.2 Review and approval

The PCR review should confirm that the PCRs and their development process comply with the standards to which they refer, and that the approaches and methods used are scientifically and technically sound. The results of the PCR analysis may also provide recommendations for further improvement of the PCR. The PCR review is conducted in accordance with ISO 14025.

The updated draft PCR submitted by the moderator of the PCR following open consultations shall be reviewed by the AC of the Programme, acting as an expert committee on the PCR, with the support of the Secretariat, which shall review the PCR. The members of the AC shall take practical actions to comply with the rules of impartiality if they have a conflict of interest, including if they are a PCR moderator or a member of the PCR committee, or belong to the same organisation as the PCR moderator or the PCR committee.

The PCR analysis shall be headed by the chairperson of the PCR expert committee (with the possibility of involving one or more co-chairpersons), appointed from the members of the Programme Advisory Council, who shall be independent from the industries producing and supplying the products covered by the given product group (category) or supplying to them.

The results of the PCR analysis shall be formalized in a report, which shall contain the following information:

- indication of compliance/non-compliance of the PCR with this GPI as well as with standards ISO 14025, 14040, 14044, 14046, 14067 and ISO/TS 14027,
- whether the LCIA and LCI indicators, together with the additional environmental indicators prescribed by the PCR, cover a sufficient number of environmental aspects specific to the product group (category) under consideration,
- a description of the procedure for processing comments by the PCR moderator and the PCR committee received during the open consultations,
- a description of the dissenting opinion, if any, on the PCR committee,
- a conclusion on the results of the expert review, formulated, for example, as follows: "the draft PCR is approved without the need for amendments"; "the draft PCR is approved after the comments and proposed amendments have been taken into account" or "further expert



review is required after the comments and proposed amendments have been taken into account".

The PCR analysis report is not subject to publication, but shall be made available upon request.

If any comments and proposed changes to the draft PCR have not been satisfactorily addressed or if there are doubts as to whether they have been satisfactorily addressed, the Secretariat should consult with the Chair of the PCR expert group before final approval and, if necessary, initiate an additional stage of review of the PCR.

Final approval of the PCR may require several stages of review by the PCR expert committee and finalization by the PCR moderator.

6.4.3 Publication

When the draft PCR has been approved, the Secretariat shall make final editorial changes, assign a registration number, and publish the final version of the PCR on the website together with associated information that, for example, enables the identification of which PCR to use for a specific product. This information shall include:

- the name of the PCR,
- scope of application
- OKPD-2 and/or UN CPC code(s),
- registration number,
- version number,
- contact information for the moderator of the PCR,
- list of members of the PCR committee.

The Secretariat shall establish the validity period of the PCR, which shall be three to five years from the date of publication. The validity period of the PCR should be reasonable and sufficient to ensure the relevance of the requirements and recommendations from the PCR. The standard validity period is four years; any deviation from this period should be justified in the PCR.

To better understand which PCRs should be used to develop EPDs for a particular product category, the following information should also be available in the PCR description:

- Scope of PCR, including:
 - the name and definition of the product group (category), as well as synonyms or other keywords related to the product group (category),
 - products covered by the PCR, with reference to the product code in a common and publicly available product classification system. The EPD Center uses the OKPD-2 codifier as the default product classification system and the UN CPC as a secondary one,
 - practical information about the use, application area or function of a product that helps the user of the PCR to understand whether the scope of the PCR is applicable to a particular product,
 - life cycle stages taken into account,
- geographical scope of the PCR (for which country the PCR may be relevant and applicable),
- the date of publication and expiration of the PCR,
- reference to the standards to which the PCR complies,
- PCR version history,
- name and contact details of the Programme operator,
- name and contact details of the PCR moderator and names of organisations represented in the PCR working group,
- information on how the PCR analysis report can be obtained.

6.4.4 Announce publication

The PCR Moderator shall inform the PCR Committee and other groups of stakeholders involved in the PCR development process about the outcome of the work and publication of the PCR. The Secretariat



should announce the publication via the web-site www.epdcenter.org, a newsletter and/or other communication channels.

6.5 Updates

The PCRs have a limited validity period to ensure that they are regularly updated and adapted to changing regulatory and standardisation requirements.

Any interested party may submit comments on published PCRs by e-mail to the PCR moderator and the Secretariat. Comments, observations and suggestions received may form the basis for updating the PCR during its period of validity or may be taken into account when updating the PCR after its expiry.

Outdated PCRs cannot be used to develop and register new EPDs or to update published EPDs to extend their validity. In order for an outdated PCR to be used for these purposes, it shall first be updated or its validity extended in accordance with Section 6.5.2.

The updated PCR shall be assigned an updated version number or, if its scope has changed significantly, a new registration number.

6.5.1 Updating the control panel during the validity period

The PCRs may be revised during their term, provided that reasonable proposals for substantive changes or amendments are submitted.

Such changes include edits, additional clarifications, correcting errors or aligning the PCR with the new version of the GPI.

Errors should be the subject of correction as soon as they have been identified.

PCRs can also be updated during their validity period on the basis of:

- new information based on LCA research on the relevant industry sector,
- special market requirements not covered by existing PCRs,
- other comments of sufficient technical or methodological significance.

The old versions of the PCR are valid in parallel with the new version during the transition period. The transition period shall be at least 90 days, but shall not exceed the validity period of the old version of PCR, as defined in Section 6.4.3.

Information on transition periods is available at www.epdcenter.org.

Minor changes to the PCR are made by the Secretariat. For issues of greater methodological importance, the PCR Advisory Council should be involved. Open consultations are held in case of changes that require external stakeholders participation, such as harmonisation of the PCR requirements with the requirements of a particular market. Such open consultations may be shorter than the eight weeks prescribed for the standard PCR development process (see Section 6.3). Shorter deadlines for consulting shall be approved by the Secretariat.

The frequency of significant changes to the PCR (e.g., relating to the general LCA method applied in the Programme) during its validity period should be minimized to ensure the temporal stability of the requirements prescribed by the PCR.

6.5.2 Renewal for prolongation of the PCR validity period

As the expiration of the PCR approaches, the moderator of the PCR initiates a discussion with the Secretariat on whether and how the PCR should be updated and extended. The Secretariat shall notify the PCR moderator of the need to update the PCR at least one year before its expiration date.

If there is no moderator for the PCR, the Secretariat is looking for a potential moderator.

Once a decision has been made to update the PCR to extend its validity, the update shall be conducted in accordance with the PCR development process described in Sections 6.1-6.4.



In the event that there is still an external demand for obsolete PCRs, the Secretariat may extend the validity of such PCRs for the time necessary to complete the updating of the PCRs, which shall not exceed one year from the date of expiration of the previous expiration date.

The decision to extend the validity period of the PCR shall be communicated to the PCR Working Group and posted on www.epdcenter.org, and such extension shall not be carried out more than once for the same version of the PCR. The validity of an outdated PCR is not extended if the PCR is based on an outdated version of the GPI.

6.6 De-registration of PCR

Outdated PCR should be de-registered by the Secretariat if they have been replaced by a PCR with overlapping scope of application or for other reasons. De-registered PCRs should be made available upon request. The Secretariat should inform the moderator of the PCRs when they are deregistered. If the renewal process is initiated within 1 year from the date of de-registration, the PCR may be re-registered either by extending the validity of the existing version during the renewal process (see Section 6.5.2) or by publishing an updated version of the PCR.

6.7 C-PCR Development

PCRs covering broad product groups (categories) (e.g. such as PCRs for construction materials, products and technologies) may be supplemented by complementary PCRs (c-PCRs) containing additional guidance and requirements for a subset of the product group (category) covered by the basic PCRs. In such cases, the basic PCRs should allow declaration of environmental performance only per declared unit and, thus, c-PCR may be required for declaration of environmental performance per functional unit.

In addition to the functional unit, c-PCR may make recommendations on other methodological aspects of particular relevance to their field of application, such as recommendations on the allocation or modeling of end-of-life scenarios for products.

c-PCR should only contain recommendations that differ from or complement the core PCRs and should not include recommendations that are identical to the core PCRs - for such recommendations, the c-PCR should refer to the core PCRs. c-PCR should be consistent with the same GPI provisions as the core PCRs.

If the requirements in the basic PCR and c-PCR diverge, the requirements in the c-PCR shall prevail, unless otherwise approved by the Secretariat.

The development/updating of c-PCR should follow the same procedure as the development/updating of conventional PCRs. The only permissible exception is if the c-PCR represents the adoption of an external standard, which in turn has undergone proper consultation and review (analysis) procedures. In such cases, the content of the standard shall be reviewed by the Secretariat to ensure acceptable quality, if necessary with the support of the AC, before being accepted as a c-PCR in the EPD Center Programme.

7. PROCEDURE FOR EPD DEVELOPMENT AND REGISTRATION

Developing an EPD for registration in the "EPD Center" program involves the following key stages:

1. Selecting a PCR (see Section 7.1);
2. Conducting an LCA assessment of the product based on the selected PCR (see Section 7.2);
3. Submitting the LCA results and accompanying information in EPD format (see Section 7.4);
4. Verifying the LCA assessment and EPD (see Section 7.6);
5. Assigning a registration number in the format R-N-XXXXX, where XXXXX is the numerical part of the registration number, and publishing the EPD on the program's website (see Section 7.7).



Published EPDs can be corrected and supplemented (see Section 7.9). An EPD is considered published until it is removed from publication by the EPD owner or the Program Secretariat (see Section 7.10).

EPDs should only be developed for products on the market or intended to be on the market. The market need not necessarily be open, e.g. products may be publicly offered to one or more customers.

7.1 SELECTION OF PCR

The PCRs used in the development of the EPD shall be available on www.epdcenter.org and be valid at the time of the EPD verification, unless the organisation interested in the EPD contacts the Secretariat regarding the possibility of using PCRs from another environmental declaration programme.

If suitable PCRs are not available within this program, the potential EPD developer can initiate the PCR development procedure (see Section 6.), or, in specific cases, use PCRs from other EPD programmes, provided they do not contradict the fundamental principles of the GPI. For PCRs from other programmes, the EPD developer shall contact the Secretariat for consultation on its applicability.

Products planned for future production (market introduction) shall adhere to specific EPD development provisions outlined in Section B9.3 and Section B9.4 of Appendix B of the GPI.

If the programme has additional PCRs (a-PCRs) for the specific product group (category), they should be used in conjunction with the applicable base PCRs.

7.2 CONDUCTING A LIFE CYCLE ASSESSMENT (LCA) STUDY BASED ON PCRS

In developing an EPD, the environmental performance of products should be described using a product/service life cycle approach, so one of the main steps is to carry out a Life Cycle Assessment (LCA) study, using both internal experts within the company owner of the EPD and external experts (consulting).

The LCA study shall adhere to:

- internationally recognized principles, approaches, methodologies, and practices outlined in ISO 14040 and ISO 14044,
- the overall EPD goals, including data collection, method selection, and assumptions, conforming to the latest version of ISO 14025 and Appendix B of the GPI,
- the applicable PCRs and a-PCRs for the specific product category.

If there are conflicting requirements in the guidance documents used to develop the EPD, the hierarchy of standards described in Section 4 shall be followed. Requirements and rules in documents higher in the hierarchy shall take precedence over requirements and rules in documents lower in the hierarchy. If there are differences in the stringency of the rules, the stricter rule applies (e.g. a requirement in a PCR takes precedence over a (conflicting) requirement in a c-PCR, even if the c-PCR is higher in the hierarchy).

The LCA study shall be documented in a LCA report (see Section 7.5).

7.3 TYPES OF EPDs

EPD Center programme allows for the development of the following types of EPDs:

- ❖ EPD for a single product from a single manufacturer / from a service provider*,
- ❖ EPD that includes several products from the same manufacturer,
- ❖ Sector EPD,
- ❖ EPD for a product not yet on the market (see Section B9.4 of Appendix B),
- ❖ EPD for a product that is new to the market (less than 1 year) (see Section 9.4 of Appendix B).

* Such an EPD may cover multiple production sites, provided that products from different sites are not sold as different products and/or are not otherwise differentiated for the buyer/consumer.



7.4 PRESENTING INFORMATION IN EPD FORMAT

The EPD shall present the compiled results of the underlying LCA (environmental performance indicators, product system description and other relevant information) in accordance with the guidelines in ANNEX A, as well as other mandatory and voluntary information to be disclosed in the EPD. It is recommended that the EPD templates, available at www.epdcenter.org, are used to complete this information in the EPD under the Programme. The relevant PCR may provide specific guidance on how to complete the information in the EPD.

7.4.1 Presenting part of the the LCA information in the format of a climate product declaration

In addition to providing LCA information in the EPD format, the environmental declaration owner may choose to provide information on only one impact category addressed in the LCA using product climate declaration format.

Product climate declaration must disclose the same quantitative indicators as the underlying EPD, but only for one category - climate impact (global warming potential) expressed in CO₂ equivalent. However, the product climate declaration itself must also include the following information, among others:

- name and registration number of the EPD on which the climate product declaration is based,
- name of the Programme,
- PCRs on which the EPD based,
- OKPD-2 and/or UN CPC code,
- indication of the functional or declared unit,
- disclaimer: "This Climate Product Declaration reports the results of the Life Cycle Assessment underlying the corresponding EPD for only one category - climate impact (global warming potential) expressed in CO₂ equivalents - and does not disclose other environmental, economic and social aspects related to the product",
- a brief description of the product and the organization,
- contact information for queries regarding the information disclosed in the product's climate declaration.

Publication of this document is possible only if the organization has a valid EPD and is carried out in accordance with the provisions of paragraph 7.7.3 of the GPI

7.5 Structure of the LCA (Life Cycle Assessment) Report for EPD Development

The LCA report shall, at a minimum, include the following elements, including for verification purposes (Sections 7.5.1-7.5.4).

7.5.1 Description (scope) of LCA

- goal and scope of the study (coverage of the processes included in the modelled production system),
- the type(s) of EPD to be developed as a result of the LCA (see Section 7.3),
- the selected functional/declarable unit, its technical characteristics and product reference service life (RSL) (for construction products),
- a description of the product system boundaries, including:
 - a description of the modules/life cycle stages included in the LCA and the rationale for excluding any of the stages/modules,
 - geographical coverage for each module or life cycle stage,
 - a schematic representation of the boundaries of the product system (block-scheme),
- assumptions made and rules for exclusion,
- applicable allocation rules or an indication that no allocation has been applied,
- a description of methodological approaches for electricity modelling, biogenic carbon accounting and other specific procedures that may be prescribed by applicable PCRs, these GPI and other standards.



7.5.2 Life Cycle Inventory

- description of the main production process of the declared product and, if necessary, other technological and non-technological processes for which primary data were collected,
- qualitative/quantitative characterisation of unit processes included in the product system under consideration,
- a presentation of the results of the inventory analysis, including:
 - description of primary data used,
 - description of secondary data used,
 - description of sources, quality, representativeness and degree of aggregation (averaging by global indicators, industry-wide, etc.) of secondary data
- description of the procedure for identifying missing data and assessing its influence on the results (sensitivity analysis),
- description and justification of the considered scenarios for downstream processes modelling (modules A4-C4 and module D for the construction products),
- presentation of the inventory analysis results (quantified) for the product system in relation to the functional/declared unit and reference flows,

7.5.3 Life Cycle Impact Assessment

- references to applicable methods and characterisation factors (reference to applicable PCRs may be given if the PCR provides relevant instructions)
- results of the environmental performance assessment:
 - by environmental impact assessment categories,
 - by categories based on inventory analysis,
 - other additional categories and criteria, if applicable,
- a statement (disclaimer) that 'the results of the environmental impact assessment are only relative statements that do not describe the environmental impacts at endpoints, exceedance of thresholds, safety limits and/or relevant risks to the environment' (adopted from EN 15804).

7.5.4 Interpretation of results

- description of identified environmentally significant aspects of the product system (e.g. data from life cycle inventory analysis, individual life cycle stages and processes that contribute significantly to the final results of the LCA),
- evaluation of the LCA results (e.g., completeness of data, sensitivity analysis results, data representativeness, uncertainty analysis),
- description of limitations identified in the data quality assessment and sensitivity analyses,
- conclusions and recommendations for specific decision makers based on the results of the LCA study, e.g. related to minimising the environmental impacts of the product system under consideration.

Results should be interpreted in accordance with the objectives, scope and coverage of the study as defined in the corresponding LCA.

7.6 EPD VERIFICATION: OBLIGATIONS OF EPD OWNERS

EPD verification is mandatory for registration in the program. Organizations developing EPDs shall:

- ensure that the LCA and EPD undergo independent third party verification;
- provide data and all information required for verification in a remote and/or offsite format (see Section 8.3);
- ensure that internal procedures for follow-up procedure (monitoring) of data disclosed in the EPD are implemented.

7.6.1 Format for Presenting Data for Verification

As part of the verification process, the organisation developing the EPD shall provide the following documentation to the verifier:



- LCA report, which, in turn:
 - is not publicly available and is not published together with the EPD,
 - shall be prepared in Russian and/or in English,
 - shall contain references to applicable PCRs, these GPI and literature sources used,
- EPD in Russian and/or in English,
- supporting documentation for the EPD and the underlying LCA, necessary for verification.

If a verifier considers that the product system model and the data disclosed in the EPD or LCA report do not meet the verification criteria, the verifier may request additional information or further revision of the product system model, EPD or LCA report. The dialogue between the verifier and the EPD owner shall be documented.

In addition to the verification of the product system model described in the LCA report, the verifier may also evaluate the parameters adopted and the way in which the product system is modelled by analysing the software, databases or datasets used for the product life cycle modelling.

For EPDs for construction products conforming to EN 15804, the requirements for the LCA report set out in section 8 (“Project Report”) of EN 15804 apply.

7.6.2 Structure of Data Presentation in an EPD

The EPD shall include general information about the programme, the EPD owner, and the product (as outlined in Annex A), along with details of the underlying LCA (Life Cycle Assessment).

The LCA data shall be presented in a manner consistent with this GPI, taking into account the structure of the LCA report as described in Section 7.5 and the LCA methodology approved by the Programme (see Annex B).

7.6.3 Developing of follow-up procedures

The EPD owner should develop internal follow-up procedures to confirm whether the information in the EPD will be valid for the duration of its validity, or provide evidence to the verifier that this requirement is being fulfilled in the enterprise by implementing appropriate policies and procedures (e.g. by implementing appropriate management systems and developing internal policies, regulations, job descriptions and other elements of management systems).

The follow-up procedure shall be carried out by the organisation itself or by a third party verifier at least once a year from the date of the initial or updated version of the EPD (see Section 8.3.7). The procedure shall include a description of how the organisation follows up any significant changes that have occurred in the production process or other unit processes within the product system under review. The follow-up procedure may be integrated by the EPD owner into an existing quality or environmental management system of the company.

7.7 Registration and Publication of EPDs

7.7.1 Registration Process

EPDs developed according to ISO 14025 shall be registered in environmental declaration programme. To register an EPD in EPD Center, the EPD owner shall:

1. prepare the EPD in accordance with applicable PCR, these GPI and relevant standards,
2. undergo verification,
3. obtain verification report.

Upon completion of steps 1 - 3, the EPD owner submits a request for EPD registration to the Secretariat to the e-mail address info@epdcenter.org with the subject “EPD Registration”. Upon this



request, the EPD owner signs the Agreement for participation in the “EPD Center” (hereinafter referred to as the Agreement)⁵.

The agreement with the Programme operator shall be signed only by the EPD owner. An intermediary organisation (consultant) cannot sign the agreement on behalf of the EPD owner.

Once the agreement has been signed and the Secretariat has confirmed that the EPD meets all the requirements of the GPI, the Programme Secretariat will add the EPD to the EPD register, assign a registration number, indicate the date of publication, the date of the first/updated version of the EPD (if the date of the EPD version differs from the date of registration) and publish it on the Programme website.

7.7.2 EPD Publication

The EPD shall be published by the Programme Secretariat on the Programme website (www.epdcenter.org/) after the EPD owner or an intermediary organisation authorised to act on behalf of the EPD owner has provided all the required information and signed the agreement (see Section 7.7.1) with the Programme Operator.

The EPD shall be published within a maximum of 90 days from the date of the initial version of the EPD (or the date of the EPD update (see Section 7.8⁶)). Once published, the EPD shall be made publicly available at www.epdcenter.org/. If there is an interest in restricting access to the EPD, the EPD owner should contact the Programme Secretariat for further instructions.

If access to the EPD is restricted, this information and a note that the EPD is for business-to-business (B2B) communications only should be indicated on the cover page of the EPD and on the main information page about this EPD on the website (www.epdcenter.org/).

The programme operator may also publish EPDs in formats other than those specified by the programme, but this alternative format shall conform to the programme's information disclosure requirements.

After publication, the EPD is valid until its expiration date or its withdrawal. During this period, the owner can use the "EPD Center" programme logo according to the GPI or other programme documents specifying logo usage. Published EPDs are intended for use only within the programme's framework and should not be published elsewhere, unless specifically authorized by the Secretariat (e.g., under a mutual recognition agreement allowing dual publication).

7.7.3 Publication of climate product declaration

Where appropriate, a product climate declaration based on this EPD may be published in parallel with the publication of a registered EPD (see 7.4.1 **Presenting part of the the LCA information in the format of a climate product declaration**). The EPD owner shall inform the Secretariat of its intention to publish a product climate declaration. The EPD owner shall then provide the Secretariat with the necessary information to prepare the climate product declaration.

At the request of the EPD owner, the Secretariat shall, in cooperation with the EPD owner, approve the layout of the climate product declaration and publish it together with the EPD on which it is based.

7.7.4 Fees and Charges

The Programme provides two types of fees for participation in the Programme, maintaining the publication of the EPD and the possibility of its/their updating, as well as the possibility of application of the EPD by its participants (EPD owners):

⁵ “Agreement” means a contract, invoice or other document format that sets out the form of interaction, rights and obligations and is concluded between the Programme operator and another organisation participating in the EPD Center environmental declaration programme.

⁶ In case of updating the EPD, which resulted in the need for re-verification and, subsequently, updating of the EPD validity period, the agreement with the Programme operator shall be signed again



1. Registration fee - a one-time fee for EPD registration, the amount of which depends on the number of EPDs to be registered.
2. Annual fee - a periodic fee (once a year) for the organisation's participation in the Programme, the amount of which depends on the size of the organisation in terms of the number of employees.

Current programme fees are available at www.epdcenter.org/. The structure and amounts of the fees will be subject to annual review. Any relevant changes to the fee schedule (in particular changes to the pricing policy) will be communicated to EPD owners through the publication of relevant information on the website, through the Programme's social media channels, through targeted mailings to EPD owners and stakeholders and through other feedback channels..

7.8 AMENDING AND UPDATING EPDS

7.8.1 Amendments to the EPD

The EPD owner may, at its own discretion, make edits or other changes to the EPD during its period of validity, e.g. as a result of a follow-up procedure (see Section 7.6.3).

An updated EPD shall be subject to re-verification unless only editorial changes are made (see Section 8.3.9). The updated EPD shall include the date of the new version of the EPD on the cover page or main information page and a description of the differences from the previous version in the corresponding section of the EPD.

An updated EPD that has been re-verified may have a new expiry date based on the date of the new version of the EPD (normally five years from the date of re-verification for as long as the PCRs are valid). Only programme-approved verifiers are authorised to validate the new EPD validity period.

An updated EPD should retain the same registration number (first part of the registration number, see Section 7) as the previous version, even if it is updated according to new PCRs. A major change to the product(s) included in the EPD should result in the withdrawal of the EPD from publication (see Section 7.9) and possibly a new publication of the EPD (but not an update of the existing EPD). In this case, a 'major change' is defined as a change in the function of the product to such an extent that it cannot fulfil the former function and is not produced using the same main steps (core manufacturing processes) specified in the A3 lifecycle information module compared to what it was before the change.

An EPD that includes multiple products may be updated on a product-by-product basis, subject to the rules of Annex B, Section B9.

In case of disagreement, the Secretariat shall decide whether the change in the EPD is mandatory and whether the updated EPD requires re-verification.

The Programme Secretariat shall keep an archive of old versions of the EPDs.

7.8.2 Mandatory EPD Updates

The EPD is subject to mandatory updating and re-verification during its validity period if there are changes in the information declared in the environmental declaration (see Section 5.3) or if there are changes in technology or other circumstances that result in the following:

- an increase of more than >10% in the aggregated results for the life cycle stages (information modules) included in the EPD (module D is not a life cycle stage) for any of the declared environmental performance indicators. This applies to any of the GWP and LCIA indicators declared in the EPD (see Annex B, Section B8). However, for the GWP category, only the change in the GWP-total indicator needs to be considered (i.e. the change can exceed 10% for sub-categories).
- significant changes in declared product information (e.g. change in production location, change in service life, inclusion of new products in the EPD), product composition (e.g. new material/substance, change in composition) or in additional environmental, social or economic information.



If such a change has occurred but the EPD is not updated, the EPD owner should withdraw the EPD from publication (see Section 7.9). If the change is to the product system model, the EPD owner may wait to update the EPD until the quantitative data for the LCA for a full calendar year after the change has occurred are updated and available, as this corresponds to the default time period for data collection in accordance with Annex B Section B5.2.

7.9 WITHDRAWAL OF EPDS FROM PUBLICATION

The programme Secretariat may withdraw an EPD published on www.epdcenter.org if the associated fees (see Section 7.7.3) are not paid in a timely manner, if the EPD owner violates the GPIs or the agreement with the program operator, or if the EPD contains significant errors that the owner fails to correct within a reasonable timeframe. Such EPDs may be re-published if fees are paid, compliance is restored, or errors are corrected.

EPDs withdrawn from publication shall not be considered valid even if the validity period specified in the EPD has not expired.

Withdrawn EPDs are not valid. This means that the EPD owner should not present this EPD as valid when informing stakeholders in order not to mislead them.

The EPD owner may decide to continue to publish expired EPDs on www.epdcenter.org. In this case, the published expired EPD shall not be used in the communication of relevant information on the declared products (e.g. participation in public procurement, database development) and/or on the market in general, unless an exception is made in writing by the Programme Operator and accepted by the intended user of the EPD information. An expired EPD may remain published only if the EPD holder continues to pay the applicable fees (see Section 7.7.3).

For an expired EPD to become valid again, it must be renewed within one year of its expiration date. Otherwise, the EPD must be published as a new EPD with a new registration number.

Withdrawn EPDs may be made available by the Programme Secretariat upon request from interested parties in agreement with the owner of the EPD.

7.10 WITHDRAWAL OF EPDS FROM REGISTRATION

EPDs that have been withdrawn by the EPD owner or the Programme Secretariat cannot be published again on www.epdcenter.org. Withdrawn EPDs will be considered as expired even if the validity period indicated in the EPD itself has not expired.

As with de-registered EPDs, de-registered EPDs should no longer be utilised in any way, including use in any communications that may mislead stakeholders into believing that the EPD is still published and valid.

When an EPD is deregistered, any obligation to pay the relevant fees (see Section 7.7.3) shall be terminated.

The Programme Secretariat shall maintain an archive of deregistered EPDs.

Deregistered EPDs may be made available upon request in agreement with the EPD owner.

8 VERIFIERS. VERIFICATION PROCESS

Verification of EPDs shall be conducted by authorized verifiers within the Programme. These verifiers shall possess expertise in the product category, industry, and relevant standards related to the products covered by the EPD. A list of approved verifiers is available on www.epdcenter.org. The procedure for approving verifiers is detailed in Section 5.6.

8.1 INDEPENDENCE OF VERIFICATION

The verification process shall be independent (impartial). The verifier is responsible for the impartiality of the verification procedure and shall ensure that commercial, financial, or other pressures do not compromise impartiality. The verifier shall monitor their activities and relationships with the client to identify any threats to their independence, including those related to their personnel where



appropriate. If a threat to impartiality is identified, measures shall be taken to eliminate or minimise its negative impact on the verifier's activities to guarantee impartiality. Examples of threats include conflicts of interest, self-verification, undue familiarity, and coercion.

To maintain impartiality, verifiers shall not offer or provide LCA or EPD consulting services to the EPD owner they are verifying.

Verifiers shall regularly assess and, if necessary, take steps to mitigate potential threats to impartiality when providing verification services to the same client (e.g., EPD owners). The Secretariat reserves the right to assign verifiers to future EPD owners as needed. Contracts between the verifier and the client shall be structured to avoid any commercial, financial, or other pressures that could compromise the verification's independence. Verifier activities shall not be promoted or offered by any consulting organization. Verifiers shall react to any threats to their impartiality coming from other individuals or organizations.

8.2 PRINCIPLES OF VERIFICATION

The verification procedure shall confirm that the information in the EPD accurately reflects the documents underlying the environmental declaration. It shall also validate the information's accuracy and scientific basis.

Based on the GPI, relevant PCR and standards, verification should encompass the following key assessment areas:

- the underlying data used in the LCA calculations,
- LCA calculation methods and their compliance with the calculation rules,
- the environmental performance assessment results,
- additional environmental, social, and economic information,
- any other information included in the EPD.

8.2.1 Verification Procedure

Verification is the process of confirming compliance with established requirements by providing objective evidence.

The objectives of the verification are the following:

- confirm that the LCA and EPD comply with relevant requirements prescribed by the GPI, applicable PCRs, and standards,
- confirm the validity, quality and accuracy of the LCA and EPD by assessing the accuracy, completeness, representativeness, consistency, reproducibility, sources of data and results of uncertainty analysis,
- confirm that the EPD owner has developed feasible procedures for updating the LCA and EPD if necessary (follow-up procedures, see Section 7.5.3).

Verification can be conducted in two ways: "on-site verification" and "remote verification." The verifier determines the type of verification. EPD owners can request remote verification to minimize the risk of disclosing confidential business information beyond their operational boundaries (e.g., production facilities). Remote verification should be conducted in such a way that the same reliability and quality of the entire procedure is ensured as for on-site verification.

8.2.2 Validation

Validation, as defined in ISO 17029 and ISO 17065, can be used as a means of demonstrating compliance where deemed appropriate. For example, validation can be applied to EPDs for products that are not yet in production (pre-market) (see Appendix B, Section B9.3).

8.2.3 Confidentiality of Data

Commercial data may be confidential due to competitive business aspects, intellectual property rights, or similar legal restrictions. Such confidential data does not need to be disclosed in the EPD, as EPDs typically provide aggregated data on the entire product life cycle or its parts. If data in the



EPD regarding component composition is confidential, the EPD can use general names or descriptions of materials/substances and/or ranges of values (instead of specific values), provided applicable rules for disclosing hazardous substances information are followed; the specific (precise) component composition data should be included in the LCA report. Commercial data identified as confidential and provided during verification shall not be shared with third parties or disclosed by the verifier without prior agreement.

8.2.4 Level of Assurance

The level of assurance for EPD verification by individual verifiers (as per Section 5.6) should meet a reasonable level of assurance, implying a high degree of confidence but not absolute certainty, as defined in ISO 14050. This recommendation is not mandatory when the verification is conducted by a validation and verification/certification and audit body.

8.3 EPD Verification Procedure

8.3.1 Compliance of LCA and PCRs

The verifier shall objectively assess whether the following LCA and EPD components comply with the PCR, GPI, and applicable standards for the product category:

- data collection and processing, including the choice of LCA methods (checking applicable cut-off rules, assumptions, allocation and other methodological considerations of the LCA),
- life cycle inventory process (LCI),
- life cycle impact assessment (LCIA).

When reviewing the initial data for the LCI, the verifier shall ensure that:

- each of the unit processes is defined according to the PCR,
- all the information required for the LCA and EPD is documented for each unit process and module/stage of the product life cycle, i.e. it is sufficiently consistent and reproducible to enable independent assessment of the relevance of the data in accordance with the PCR.
- data are reliable and the degree of reliability and validity meets the required criteria.

When assessing the source data and results of the LCA, the verifier may carry out spot checks on individual life cycle processes/information modules to ensure that they are consistent with the source data. The organisation carrying out the LCA shall provide the verifier, on request, with information on the sources of the source data and the calculations made.

When assessing the source data and results of the LCA, the verifier may carry out spot checks on individual life cycle processes/information modules to ensure that they are consistent with the source data. The organisation carrying out the LCA shall provide the verifier, on request, with information on the sources of the source data and the calculations made.

When reviewing the results of the LCA, the verifier shall check that the calculations based on the results of the LCA and the established characterisation coefficients are correct. Sampling checks should be carried out for:

- those unit processes/product life cycle information modules that have a significant influence on the results of the LCI and LCIA,
- random sampling of unit processes/information modules of the product life cycle.

8.3.2 Information Disclosed in the EPD

The verifier shall check the consistency of information in all sections of the EPD relating to the PCR, GPI and applicable standards in relation to the product group (category), including but not limited to the following information:

- a general description of the products, their properties and specifications,
- the results of the life cycle impact assessment,
- additional environmental, social and economic information,
- specifying required statements (e.g., disclaimers).



When assessing the information provided in the EPD, it should be emphasised that:

- background information is presented in a clear and transparent manner,
- the narrative is credible and neutral,
- the format of the environmental declaration follows the requirements and recommendations for the format and structure of the EPD as described in Section 7.6.2 and ANNEX A, or the programme's EPD template,
- relevant information for the EPD and guidance on where to find additional explanatory material has been provided

8.3.3 Verification of a Sector-Specific EPD

The verification procedure for a sector EPD should be more rigorous than for a company-specific EPD, due to the need to check information from a considerable number of enterprises and production sites to be covered by the sector EPD.

When verifying an industry EPD, the verifier needs to consider the following aspects:

- how to ensure a complete and reliable verification process, given the need to assess multiple production sites,
- the need to appoint a responsible person for the sector EPD, who will be able to handle the verifier's comments on the information from all the companies included in the sector EPD and the data on the main production processes considered in the LCA.

In defining the reasonable coverage of a representative sample of production sites for inclusion in the sector EPD, the following recommendations may be used in the event of difficulties in defining the coverage of a representative sample.

- assess the feasibility of verifying environmental management systems if the corporate certification ensures that the requirement to visit approximately one third of the total number of production sites annually for at least three years is met (this rule may not be applicable for a sector EPD with too many facilities),
- consider whether there are clear differences between sites in terms of upstream processes (supply chain) or production processes, and if so, draw a representative sample for each group of sites that differ in the above aspects,
- randomly check a number of sites and see if there are any significant differences to be considered - if not, it is possible to apply basic statistical theory which suggests that achieving a sample size of about 25 sites will provide reasonably good and accurate information on the representative situation prevailing in the production sites to be covered in the EPD,
- to determine an appropriate sample size (coverage) for a given percentage of production sites - e.g. 20%

Regardless of the approach chosen, the sample size (coverage) should be adjusted to account for the uncertainties inherent in traditional LCAs and PCRs.

8.3.4 Outsourcing

Validation and verification/certification and audit bodies may outsource EPD verification tasks only if they are accredited according to ISO 17065 or ISO 17029 and follow the outsourcing requirements of the relevant standards (at least outsourcing activities are enshrined in the QMS of an ISO 9001 certified organization).

Individual verifiers are not allowed to outsource their EPD verification tasks.

8.3.5 EPD Verification Report

The verification process shall be transparent. A verification report, in Russian or English, documents the verification process. A single verification report can be generated for multiple EPDs based on the same PCRs and with identical validity periods.

The report shall document the verification process, including any dialogue between the LCA author and the verifier, while respecting data confidentiality rules.



This dialogue should include:

- sequential comment number,
- link to the page in the LCA report or EPD to which the comment relates,
- comment type (editorial, general, or technical),
- verifier's comment and recommendation,
- LCA author's response,
- verifier's final conclusion.

The verification report shall be dated and signed by the verifier. This date is considered the date of approval for the initial version of EPD.

The verification report shall include:

- EPD registration number,
- product(s) name,
- EPD owner,
- PCR(s) and c-PCRs (if applicable), including registration number, name, and version,
- EPD validity period,
- additional verifier comments (if any),
- LCA report name and version,
- LCA author(s) (if applicable),
- date of EPD review (if applicable),
- name of the organisation and external reviewers involved in the verification process (if applicable),
- verifier's name and organization,
- date of approval of the initial EPD version (= date of approval of the verification report), country, city and verifier's signature.

The verification report shall be submitted to the Secretariat during EPD publication and be accessible to any party upon request.

The verification report template available at www.epdcenter.org should be used for the environmental declaration of construction products.

8.3.6 Notification Regarding EPD Publication:

During the verification of the EPD, the verifier shall inform the organisation developing the EPD that in order for the resulting document to be called 'EPD' (according to ISO 14025) and to be valid, its registration and publication on the Programme website is mandatory.

8.3.7 EPD Validity Period

The EPD is valid from the date of its initial version (see Section 8.3.5). When an EPD is first published, it is normally valid for five years from the date of the original version (see Section 7.7.1). Shorter EPD validity periods are also allowed, e.g. if this is determined by the EPD owner. For validity periods in the case of EPD updates, see Section 7.8. The version date and validity period shall be specified in the EPD. The publication of a new version of the PCR or GPI does not affect the validity of already published EPDs.

8.3.8 Ongoing Monitoring During EPD Validity

As part of verification, a procedure should be developed for follow-up control (monitoring) of the data used for calculations in the LCA and declaration in the EPD, as well as control of any changes that require updating of the EPD during its validity period (see Section 7.7). This procedure should assess whether any change in the baseline production scenario of the product(s) for which the EPD has been developed would result in a change in the LCIA indicators by more than 10% for the included product life cycle stages (modules) for any of the declared environmental impact indicators.

The follow-up control procedure may be organised as follows:



1. entirely by the company itself during the EPD validity period. If changes are identified during the established follow-up procedure that require changes to the EPD, a third-party verifier should be engaged to perform the verification, or
2. under the responsibility of the EPD owner, but with follow-up, whereby the verifier is contracted to participate in follow-up throughout the validity period of the EPD.

The procedure for annual follow-up procedure shall be documented and available upon request. Any change requiring an update of the EPD in accordance with Section 7.7 must be corrected within 6 months; otherwise the EPD may be permanently withdrawn from publication and archived by the Secretariat.

8.3.9 Verification of Updated EPDs

When the EPD is updated due to significant changes in the information disclosed/declared, it must be re-verified, unless only editorial changes are required (see below). When re-verifying the EPD, the validity of the PCR applicable to the development of the EPD should be taken into account. For example, if the version of the applicable PCR is invalid at the time of re-verification, and the EPD update does not adjust the information in the EPD to the new version of the PCR, the validity of the revised EPD should remain unchanged. If the revision of the EPD includes correction of the information in it in accordance with the new version of the PCR, the validity period of the EPD may be updated.

A verification report shall be prepared based on the outcome of the verification. The updated EPD and the verification report shall then be submitted to the Secretariat to update the published version of the EPD on the Programme website.

If the changes are of only editorial nature, e.g. changing the logo or correcting misspellings, this shall be done without re-verification. In such cases the EPD version date shall be the date of the last version uploaded on the website and the validity of the EPD shall be maintained



ANNEX A. FORMAT AND STRUCTURE OF THE EPD

This appendix provides general requirements for the content and format of the EPD published within the Programme for Type III Environmental Declarations "EPD Center".

The applicable PCR may establish Additional requirements or requirements that differ from these GPI. If the requirements of the GPI and PCR differ, the requirements of the PCR shall prevail.

The standard template of the EPD layout for construction and non-construction products is available on the website www.epdcenter.org. It is also permissible to create your own EPD layouts of the company (for example, developed in accordance with the design code of the company or with a description of the information required to be disclosed in a different order), provided that the general requirements for the information required to be disclosed in the EPD shall be met.

The content of the EPD shall comply with the rules and recommendations of ISO 14020.

Information disclosed in the EPD:

- shall be verifiable, accurate, actual, not misleading, and unlikely leading to misinterpretation,
- shall not include ratings, judgments, or direct comparisons with other products or companies, so EPDs are not allowed to include normalization or weighting,

Example: EPD does not in any way imply that the EPD owner is, for example, a "market leader" or more "sustainable", "green", etc. than its competitors.

- should not reflect changes in the environmental performance results of the product over time or differences relative to a hypothetical version of the product using, for example, alternative product modifications, production processes or types of raw materials used.

For EPDs for construction products complying with EN 15804, the EPD format shall comply with EN 15942.

Product information provided on the page with the corresponding EPD on the website www.epdcenter.org shall not include information that is not included in the EPD.

A1. EPD LANGUAGES

EPDs shall be published in Russian or English, but publication of EPDs in other languages is also permitted. EPDs in other languages shall have the same content as the version in the original language (Russian or English), use the same registration number, and be published on the website www.epdcenter.org.

Translated versions of the EPD from languages other than Russian shall contain a notice (disclaimer) that:

- "This version of the EPD is an independent translation of the EPD with registration number R-N-XXXXX (the registration number of the original EPD is indicated). Only the original version of the EPD is valid in case of disagreement.", or
- "This version of the EPD is a certified translation of the EPD with registration number R-N-XXXXX (the registration number of the original EPD is indicated). This version of the EPD is recognized as valid on an equal basis with the original version of the EPD."

In case of a certified translation of the EPD, its entire contents shall be certified by a third party and a signed copy bearing the seal of the third party shall be submitted to the Secretariat.

A2. UNITS AND QUANTITIES

The following requirements apply to quantities and units of measurement:

- Wherever possible, the International System of Units (SI) shall be used: kilograms (kg), joules (J) and meters (m). To improve readability, reasonable multiples of the SI units, such as grams (g) or megajoules (MJ), may be chosen in the PCR. The following exceptions apply:



- resources used for energy input (primary energy) should be expressed in kilowatt-hours (kWh) or megajoules (MJ), including renewable energy sources such as hydropower, wind power and geothermal energy,
 - water resources shall be expressed in cubic meters (m^3),
 - temperature shall be expressed in degrees Celsius ($^{\circ}C$),
- time should be expressed in the most practical units, such as seconds, minutes, hours, days or years,
- the results of environmental performance indicators should be expressed in units specified by the impact assessment methods, such as: kg CO₂-equivalent,
- two significant digits should be adopted for all results and the content declaration. The number of significant digits shall be appropriate. Significant digits are those that carry meaning contributing to its precision. For example with two significant digits, the result of 123.45 shall be displayed as 120, and 0.12345 shall be displayed as 0.12. In scientific notation, these two examples would be displayed as 1.2E+2 and 1.2E-2,
- scientific notation may be used, e.g. 1.2E+2 for 120, or 1.2E-2 for 0.012,
- the thousand separator and decimal mark in the EPD shall follow one of the following styles (a number with six significant digits shown for illustration):
- SI style (French version): 1 234,56
 - SI style (English version): 1 234.56
- if the EPD is intended to be used in markets where other symbols are used, the EPD shall indicate which symbols are used for the thousands separator and the decimal part of the number,
- variations and percentage differences between two numbers are calculated by dividing the absolute value of the difference between the numbers by the average value of the numbers and then multiplying by 100 (for example, if the difference between the values 9 and 10 is being calculated, the following calculation shall be performed: $1/9.5 \times 100 = 10.526... \% \approx 11\%$ (with two decimals),
- date and time representation presented in the EPD shall comply with the ISO 8601 format. For describing dates, the prescribed format is DD-MM-YYYY, for example, 26-03-2017 for March 26, 2017,
- the result tables shall:
- contain only values or the letters "ND" (not declared). It is not possible to specify "ND" for mandatory parameters. "ND" should only be used for voluntary parameters that do not have a quantitative estimate because there are no available data,
 - do not contain empty cells, hyphens, symbols ">", "≥", "<", "≤" or letters (except "ND"),
 - use the value "0" only for parameters calculated to be equal to zero,
 - contain a footnote describing any limitations and assumptions applied in relation to the corresponding result.

A3. USE OF IMAGES AND GRAPHIC IN EPD

Any image used in the EPD shall be relevant to the product being declared. Images themselves may be interpreted as environmental claims (e.g. trees, mountains and wildlife not related to the product being declared) and should therefore be used with caution, in accordance with national legislation and best practice in the markets for which the EPD is intended. In case of disagreement on the correct application and interpretation of the rules for the use of images in the EPD, the Secretariat will make a decision.

EPDs claiming conformity with ISO 14026 (or its harmonized national version) shall comply with the requirements for graphical representation of the ecological footprint in accordance with ISO 14026.



A4. FORMAT OF EPD

The EPD shall include the following sections:

- Cover page (see Section A4.1),
- General information (see Section A4.2),
 - Programme information,
 - PCR and version used,
 - Verification,
 - Ownership and limitations on use of EPD,
- Information about EPD owner (see Section A4.3),
- Product information (see Section A4.4),
- Content declaration (see Section A4.6),
- LCA information (see Section A4.5),
- Environmental performance or LCIA results (see Section A4.7),
- Abbreviations (see Section A4.12),
- References (see Section A4.13).

The following sections may be included:

- Additional environmental information (see Section A4.8),
- Additional social and economic information (see Section A4.9).

The following sections shall be included, if applicable:

- Information related to Sector EPDs (see Section A4.10),
- Version history (see Section A4.11).

The inclusion of other sections and headings in the EPD is permitted only in cases where this is specified in the relevant PCR.

A4.1. COVER PAGE

The EPD cover page shall include the following information:

- Text: “Environmental Product Declaration” and/or “EPD”,
- Indication of the standard(s) in accordance with which the EPD was developed,
- EPD registration number assigned by the Programme Operator of the format <R-N-XXXXX>,
- Name of the product(s) declared in the EPD,
- Name of the EPD owner,
- Statement: “The EPD may be updated or removed from publication in the event of a change in the terms of the Programme. Confirmation of the relevance of the EPD version and its validity is the maintenance of its publication on the website www.epdcenter.org”,
- Logo of the EPD owner,
- Logo of the Programme for Type III Environmental Declarations “EPD Center” www.epdcenter.org,
- Registration date: 20YY-MM-DD,
- Date of update of EPD (if applicable): 20YY-MM-DD,
- Validity date: 20YY-MM-DD.

Cover page may also include the following information:

- visual representation (image) of the product,
- one logo/brand of the product from the EPD owner (if applicable).

Examples of cover page layouts (within the EPD layout template) are available at www.epdcenter.org. If the EPD is published in multiple languages, the conditions described in Section A1 of this appendix shall be met and a reference to this shall be placed on the title page.



A4.2. GENERAL INFORMATION

A4.2.1 Programme information

EPD shall include the following subsection with information about the Programme

- Programme name: EPD Center,
- Programme Operator: Coordinating Informational Center Of CIS Member States,
- Programme Operator address: Russia, 115093, Moscow, Lyusinovskaya St., 36, building 1,
- Website: www.epdcenter.org,
- Email: info@epdcenter.org.

A4.2.2 Product category rules

EPD shall include the following information about the PCR (and c-PCR, if applicable)

- PCR registration number, name and version,
- basic rules (standard) that serve as the basis for the PCR (if applicable),
- Note: for PCR for building materials and technologies (products) within the framework of the EPD Center, such a standard is ISO 21930. For the EPDs for building materials and technologies (products) for the European market, the basis for the PCR is, as a rule, the EN 15804 standard,
- responsible for the PCR review or the PCR Moderator (not specified when using external PCRs of other Programmes for Type III Environmental Declarations).

A4.2.3 Responsible for life cycle assessment

EPD shall include the following information about LCA:

- address and contacts of the LCA specialist appointed by the EPD owner, if applicable.

A4.2.4 Verification

EPD shall include the following information about verification:

1. Who verified the EPD:
 - a. "The EPD has been verified by an individual verifier <name, company and signature of the verifier>. Approved by the Programme for Type III Environmental Declarations "EPD Center",
or
 - b. "The EPD has been verified by the validation and verification/certification and audit body <full name of the company (body), address>. Accredited according to GOST R ISO 14065:2022 (or ISO 14065:2020, if applicable)/GOST R ISO 17065:2012 (or ISO 17065:2012, if applicable) <name of the body and numbers in the register of accredited persons, if applicable>.
2. Indication of the follow-up procedure for data control during the EPD validity period:
 - a. "Follow-up procedure for data control during the EPD validity period with the involvement of a third-party verifier: YES NO"

Please note that a subsequent verification procedure for the EPD is required at least once a year to confirm whether the information in the EPD remains current or whether it needs to be updated (=updating the EPD during its validity period) (see Section 7.8.1 Amendments to the EPD). This procedure can be organised by the EPD owner independently or jointly with the original verifier by agreement between the two parties. In both approaches, the EPD owner is responsible for the procedure. If a change is detected that requires updating, the EPD shall be re-verified.

A4.2.5 Ownership and limitations on the use of EPD

EPD shall include the following information about the ownership and limitations on the use of the EPD:

- statement that: "The EPD owner has the sole ownership, liability, and responsibility for the EPD."



- statement adapted from the current versions of ISO 14025 and ISO 14020 on the comparability of EPDs: “EPDs within the same product category but registered in different EPD programmes, may not be comparable. For two EPDs to be comparable, they shall be based on the same PCR (including the same first-digit version number) or be based on fully aligned PCRs or versions of PCRs; cover products with identical functions, technical characteristics and use (e.g. identical declared/functional units); have identical scope in terms of included life-cycle stages (unless the excluded life-cycle stage is demonstrated to be insignificant); apply identical impact assessment methods (including the same version of characterisation factors); and be valid at the time of comparison.”

A4.3 INFORMATION ABOUT EPD OWNER

The EPD shall include the following information about the EPD owner:

- address and contacts of the EPD owner,
- description of the company that owns the EPD,
- description of existing product or company(s) certifications, this description shall include information on the certifications related to the product or management system (e.g. ISO 14024 Type I environmental labels, ISO 9001 and ISO 14001 certificates) and other relevant information that the company wishes to communicate (e.g. SA 8000 certification, description of supply chain management practices and corporate social responsibility management). Any information related to environmental, economic or social “sustainability” shall comply with the rules in Section A4.8 of this annex),
- the actual address of the production site(s) where the primary data for the EPD were collected.

This section may also include:

- a visual representation (e.g. image) of the EPD owner as an company (logo, photographs of the production site).

A4.4 PRODUCT INFORMATION

The EPD shall include the following information about the product:

- general name of the product and its unambiguous identification according to standards, specifications or other means,
- description of the product in accordance with the product classification system(s) used (see below), as well as a description of the technical characteristics of the product, including its application/intended use and key functionalities,
- visual presentation of product,
- for EPD of multiple products from one company, but not more than 10: a statement that the EPD includes multiple products, indicating the list of these products,
- for an EPD of more than 10 products from one company: a link to the list of products included in the EPD, posted in the EPD section “Product Information”, as well as information on the type of EPD:
 - “EPD of multiple products, based on the average results of the product group”,
 - “EPD of multiple products, based on a representative product”,
 - “EPD of multiple products, based on several representative products”,
 - “EPD of multiple products, based on worst-case scenario”,
- if applicable (for Sector EPDs): a statement that the EPD is a Sector EPD,
- if applicable (for product/products not yet on the market (see Section B9.3 of Appendix B) disclaimer: “The product is not yet on the market. The results of this EPD should be used with caution as the primary data for the LCI are not yet based on a full calendar year of production, which may increase uncertainty.”,
- if applicable (for product/products recently introduced to the market (see Section B9.4 of Appendix B) a disclaimer: “The product is recently introduced to the market. The results of



this EPD should be used with caution as the primary data for the LCI are not yet based on a full calendar year of production, which may increase uncertainty.”,

- identification of the product (name and code) according to the OKPD-2 Russian product classification system, if an applicable code is available. Other relevant product classification codes (UN CPC, CPV or others) may also be included,
- a brief description of the main processes involved in the production of the product (for goods) or the provision of services (for services),
- technical or actual lifespan, if applicable,
- links to any relevant websites for further information or clarification.

This section may also include:

- list of products included in the EPD (see above),
- name of the manufacturer(s) and production site(s) (for Sector EPD),
- description of the physical and/or chemical properties inherent to the product (product material), such as density, etc.

A4.5 LCA INFORMATION

- The EPD shall include a section with LCA information, including the following information:
- the declared/functional unit and the conversion factor to mass if mass is not used as the declared/functional unit (e.g. if the functional unit is $1 m^2$ of the product). In addition, the physical properties of the product material shall be declared that allow the declared/functional unit to be converted to other units relevant for further modelling, such as:
 - if the declared unit is expressed in units of area, the density (kg/m²) and thickness (m) shall be declared
 - if the declared unit is expressed in units of volume, the bulk mass density (kg/m³) shall be declared
 - if the declared unit is expressed in units of length, the linear mass density (kg/m) shall be declared
- reference service life (RSL) and its relationship to technical/actual service life, if applicable,
- the name and version of the database(s) used for modelling and life cycle assessment (if applicable),
- the geographical coverage of the EPD for each included information module or life cycle stage (or other section of the product life cycle, if defined in the PCR), i.e. in which countries or regions the processes in modules A1–A5 (upstream and core process processes) are carried out and, respectively, modelled for presentation in the EPD, as well as in which countries/regions the product is used (module B) and where its life cycle ends (module C),
- The geographic scope may be “global”, for example for module A1 if the raw material is produced on several continents, or for modules B or C if the EPD declares products to be sold on a global market, if the environmental performance indicators section (see Section A4.7) discloses results for additional scenarios for modules A4-C that represent different geographic regions, the declared geographic scope should reflect the main scenario,
- description of the product system boundaries in the EPD: “cradle-to-gate”, “cradle-to-gate with additional modules”, “cradle-to-grave” or any other type of product system boundaries defined and permitted by the PCR,
- a flow chart of the product system processes (boundaries) divided into life cycle stages and modules (or other sections of the product life cycle, if defined in the PCR), indicating the main processes and product system boundaries. The flow chart shall indicate when the end-of-waste state is reached for the main input flows, reused/recycled materials and recovered energy (e.g. in the main technological processes/module A3), as well as for the output flows, reused/recycled materials and recovered energy leaving the end-of-life stage,
- information on which life cycle stages are excluded (if any) and the justification for excluding these stages.



Additionally, the following information may be included in this section of the EPD:

- summary of the data quality assessment in accordance with the requirements of Section B5.4 of Appendix B,
- declaration of the data sources used to model the product life cycle, the reference year for the data (the year in which the primary data were collected) and the proportion of primary data in accordance with the requirements of Section B5.4 Annex B. Information on the modelling of the infrastructure/capital goods product system, if applicable, in accordance with the requirements of Section B3.1.2,
- description of the scenario(s) used in modelling the downstream product system (modules A4-C4) and module D, if applicable (see Sections B7.2-B7.5 of Annex B)
- list of environmental impact assessment methods (LCIA methods) and characterisation factors of all declared environmental performance indicators with reference to the sources. The list should also include a description of the version number (e.g. EF 3.0 or EF 3.1) of the EN 15804 reference package used, if applicable.
Example: "GWP100, EN 15804. Version: EF 3.1, February 2023",
- additional relevant information about LCA, such as cut-off rules, data quality, allocation methods, other methodological choices and assumptions, and interpretation of the LCIA results (see Section 7.5.4). EPDs claiming conformity with ISO 14026 shall include quantitative or qualitative information on the uncertainties of the LCIA results.

The table below is an example of how to present information on declared modules and their geographical scope for the EPD for construction materials, technologies and products used in construction. If a table of this type is used, the following rules shall be applied:

- modules/processes/life cycle stages that are declared shall be marked with an "X",
- modules/processes/life cycle stages that are not declared shall be designated by the abbreviation "ND",
- geographical scope shall be indicated using codes and/or abbreviations corresponding to countries or territorial entities (RU, CN, EU-27, GLO).



Table 2. Example of the format of a tabular description of declared modules and their geographic scope

Stages	Product stage				Construction process stage		Use stage							End-of-life stage				Resource recovery stage		
	A1	A2	A3	TOTAL A1-A3	A4	A5	B1	B2	B3	B4	B5	B6	B7	C1	C2	C3	C4		D	
Modules declared																				
Geography																				
Specific data used																				
A1 - Raw material supply A2 - Transport (raw material) A3 - Manufacturing A4 - Transport (product) A5 - Construction/installation B1 - Use B2 - Maintenance B3 - Repair B4 - Replacement B5 - Refurbishment B6 - Operational energy use B7 - Operational water use C1 - De-construction demolition C2 - Transport (waste) C3 - Waste processing C4 - Disposal D - Reuse-Recovery-Recycling-potential																				



A4.6 CONTENT DECLARATION

If applicable, EPD shall include a section with information on the component composition of the products included in the EPD, in accordance with the rules below. If this requirement is not applicable, the PCR shall state that information on the component composition shall not be included in the EPD.

The section of the EPD with information on the component composition of the product shall contain the following information:

- mass (weight) of one unit of product in the form in which it is shipped to the consumer (including packaging), or calculated per declared unit,
- information on the composition of the product (including packaging) in the form of a bill of materials, substances and their mass (component composition),
 - it is permissible not to declare information on proprietary materials and substances for reasons of confidentiality. In such a case, the indication of such materials and substances should be replaced by a general term/description of the material/substance and/or a range of values (instead of specific values), provided that the applicable rules for declaring information on hazardous substances (see below) are observed. The declared range of values should be reasonable (in particular, it should not be very wide, e.g. 20-80% of the product weight),
- weight and content of transport and/or consumer packaging, if applicable
- the gross weight of the material specified in the section with information on the component composition shall cover 100% of one unit of the product and its packaging
- if the biogenic carbon content of the product exceeds 5%, this proportion (in mass %) is indicated together with the mass of the biogenic carbon content in kg C (kilograms of carbon) per product or functional/declared unit. If the content is below 5%, this can also be declared in the EPD
- information on the content of secondary raw materials:
 - if product contains more than 5% post-consumer recycled content⁷ (content recycled after consumption; secondary material), this proportion shall be declared,
 - if product contains less than 5% post-consumer recycled content, it can be declared,
 - the share of pre-consumer recycled content⁸ (content processed before consumption) may also be declared, and shall then be declared separately from the share of post-consumer content,
 - the share of pre-consumer recycled content may further be divided into content originating from within, or from outside, the manufacturing site/company,
 - together, pre- and post-consumer recycled content corresponds to recycled content as defined in ISO 14021. Note that the recycled content indicator included in the environmental performance indicators (see the relevant section on www.epdcenter.org) takes into account all recycled materials (pre- and post-consumer) that enter a product system from another product system, not just the material contained in the product, and is therefore an additional indicator to the disclosure.
- to calculate the amount of secondary raw materials in a unit of declared product and its packaging, the formula from ISO 14021 (Section 7.8.4.1) is used:

$$X(\%) = \frac{A}{P} \times 100\%$$

⁷ Post-consumer recycled content – secondary raw materials/materials that were formed after the consumer consumed/used the product, i.e. obtained from consumer waste. Examples of such raw materials: recycled packaging waste, electronic scrap, consumer textiles in the form of waste.

⁸ Pre-consumer recycled content – secondary raw materials/materials that were formed during the production or delivery of goods to the consumer, i.e. obtained from production waste. Examples of such raw materials: scrap metal, broken glass, textile trimmings, etc.



X – mass fraction of recycled content, expressed as a percentage,
 A – mass of recycled material used,
 P – total mass of the product,

- if there is more than 5% biogenic content in the packaging, this share shall be declared. If below 5%, this may be declared. Also the share of recycled content of the packaging material may be declared; if the share of pre-consumer recycled content is declared it shall be declared separately from the share of post-consumer recycled content,
- if the share of biogenic/recycled material is unknown, this information may not be declared or it may be indicated that the proportion of biogenic/recycled material is 0% (conservatively estimated) or unknown,
- EPD of multiple products or an Sector EPD shall include a description of what constitutes content information for a product,
- for EPD developed for communication with participants in the global market,
 - information on the environmental and hazardous/toxic properties of substances contained in a product shall be declared if the substance is on the candidate list of substances of very high concern (SVHC) that exceeds the European Chemicals Agency (ECHA) registration limits (i.e. if the substance constitutes more than 0.1% by weight of the product). The SVHC candidate list is available through the European Chemicals Agency at <https://echa.europa.eu/candidate-list-table>
- content information shall also include other information on substances with hazardous and toxic properties that may pose a risk to human health and/or the environment, if this is required by regulatory standards or rules applicable in the market for which the EPD is valid. Declaration of toxic/hazardous substances shall be carried out regardless of whether these substances have been included or excluded from the product system model based on, for example, cut-off rules,
- information on the environmental and hazardous properties of substances shall comply with the requirements set out in the latest edition of the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) issued by the UN (<http://www.unece.org/>) or in national or regional annexes of the GHS.

The declared share of biogenic/recycled materials should be based on the actual proportion of biogenic/recycled materials in the product (averaged over the time period under consideration; typically over one year of production). In other words, the share of biogenic/recycled materials in the global production practice of the materials that make up the product, such as those reported in common data sets used to perform life cycle assessments, should not be used as the basis for the biogenic/recycled content claim. Therefore, the content information declared in the EPD may differ from the content of the product(s) as stated in the product system model (as it may be partly based on aggregated (generic) LCI data).

The content information should be consistent with the technical data sheet for the product (available). The safety data sheet (if available) should be available to the verifier, such as to confirm the presence/absence of substances of very high concern in the product.

Information on the content of secondary raw materials in the product and packaging must be confirmed, and all supporting documentation must be available to the verifier upon request. Examples of supporting documentation may include⁹:

- letters from the manufacturer of the product/goods indicating the mass fraction of secondary raw materials,
- extracts from the technological/production documentation of the manufacturer of the product/goods,

⁹ Based on the official letter of the Ministry of Natural Resources and Environment of the Russian Federation №25-29/36428



- documentation on the incoming flow of secondary raw materials of the manufacturer of the product/goods according to the codes of the Russian Classification of Product by Economic Activities OK-034-2014 (KPES 2008),

other relevant official documents and certificates certified by a third party.

Additional rules for declaring the composition information may be specified in the PCR.



Table 3. Template table of content declaration of a product.

Product content	Mass, kg	Post-consumer recycled material, mass-% of product	Pre-consumer recycled material, mass-% of product	Biogenic material¹⁰, mass-% of product	Biogenic material¹¹, kg C/product or declared unit
Component 1					
Component 2					
...					
TOTAL					

Table 4. Template table for content declaration of packaging.

Packaging materials	Mass, kg	Mass-% (versus the product)	Post-consumer recycled material, mass-% of packaging	Pre-consumer recycled material, mass-% of packaging	Biogenic material¹², kg C/product or declared unit package
Component 1					
Component 2					
...					
TOTAL					

Table 5. Template table for content declaration of hazardous substances.

Hazardous substances from the candidate list of SVHC	EC №	CAS №	Mass-% (versus the product)
Substance 1			
Substance 2			

¹⁰ 1 kg of biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg CO₂.

¹¹ 1 kg of biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg CO₂.

¹² 1 kg of biogenic carbon in the product/packaging is equivalent to the uptake of 44/12 kg CO₂.



...			
-----	--	--	--

A4.7 ENVIRONMENTAL PERFORMANCE

EPD shall contain a section with environmental performance indicators of the of the declared product, including the following:

- LCA results (LCIA) for the declared product (see Section 7.5.3 and applicable PCR for the specific product category, including the indicators and impact assessment methods to be used),
- declaration of differences in results between products and sites in accordance with the requirements of Section B9 of Appendix B, if applicable, and any other statement of differences in results (e.g. as required by applicable PCR),
- a statement that “the environmental performance results are relative expressions and do not predict impacts on category endpoints, the exceeding of thresholds, safety margins or risks” (adopted from EN 15804).

If EPD includes the end-of-life stage, the EPD should also indicate that the results of this stage are recommended to be taken into account on an equal basis with the results of the production stage (modules A1-A3).

In addition to the main environmental performance indicators, this section may include additional LCA results, which are presented in a separate subsection. The subsection with additional LCA results should clearly describe the scenario/method used to calculate the results, including how it differs from the scenario/method of the main environmental performance indicators. The following additional environmental information may be included in the EPD:

- results for additional scenarios for modules A4-C4 (downstream processes). In this case, the most representative scenario (for the geographic scope of the EPB) should be selected as the main one for the environmental performance indicators), and the remaining scenarios should be declared in a separate subsection,
- results of alternative modeling of the production system, if such an alternative modeling approach is permitted by the applicable PPC or GPI. This GPI allows two alternative modeling approaches:
 - alternative GWP-biogenic results, if GWP-biogenic would allow consideration of permanent (more than 100 years) storage of biogenic carbon, either in the product, in a landfill, or because of applying carbon capture and storage (CCS) to the incineration of biogenic carbon,
 - alternative results using location-based modelling of electricity and biogas (supplied in a grid and used for energy purposes), see Sections B.6.2 of Annex B).

A4.8 ADDITIONAL ENVIRONMENTAL INFORMATION

EPD may contain additional environmentally relevant information not obtained from the LCA. Any additional environmental information should be reasonable and verifiable, obtained using appropriate methods, and be specific, accurate, not misleading and product-specific.

Quantitative information is preferred over qualitative information.

PCR may specify rules regarding additional environmental information that shall be indicated in the EPD. Examples of additional environmental information to be declared in the EPD are provided in the EPD templates presented on the Programme website.

The additional environmental information section should not include any claims (e.g. certificates) related to environmental performance indicators or other LCA indicators that do not comply with the rules of the LCA methodology described in these GPI or the applicable PCR. For example, carbon neutrality claims are not allowed, nor are claims for greenhouse gas emission reductions or the presentation of certificates based on a mass balance approach (see Section B5.2 of Annex B).



A4.9 ADDITIONAL ECONOMIC AND SOCIAL INFORMATION

EPD may include additional economic and social information related to the product or the EPD owner. Examples of additional economic and social information are provided in the EPD templates presented on the Programme website.

A4.10 INFORMATION RELATED TO SECTOR EPDs

For Sector EPDs (see Section B9.2 of Annex B) the following information shall be included:

- a list of the contributing manufacturers that the Sector EPD covers,
- a description and justification of the selection of the sites/products that has been done for inclusion in the EPD and how the averaging of results or product properties was performed (for an explanation of this procedure, see Section 8.3.3),
- a statement that the document covers the average values for an entire or partial product category (specifying the percentage of representativeness) and, hence, the declared product is an average that is not available for purchase on the market.

A4.11 VERSION HISTORY

A section shall be included describing the changes between current and previous versions of the EPD, including the version dates.

The first version shall be described as the “initial version of the EPD” (see Section 8.3.5). For each subsequent version, a description of the differences versus the previously published version shall be included.

A4.12 ABBREVIATIONS

A section shall be included describing all abbreviations used in the EPD (if any).

A4.13 REFERENCES

A reference section should be included, listing all sources referred to in the EPD and the LCA report, including the GPI (with mandatory indication of the version number) and the PCR (registration number, name and version) used to develop the LCA and the EPD.



ANNEX B. GENERAL LCA METHOD FOR EPD DEVELOPMENT

This annex provides guidelines and recommendations for conducting LCA for developing the EPD within the framework of the Programme (hereinafter referred to as the general LCA method).

In general matters of LCA implementation, the provisions of the standards ISO 14040-14044 should be followed. This annex provides more detailed information for those provisions of the above standards that require additional clarifications to enable the EPD development according to the rules of the Programme and applicable PCR (c-PCR).

The general LCA method for application within Programme for Type III Environmental Declarations "EPD Center" described in this annex is largely borrowed from the EN 15804 and ISO 21930 construction product standards. This is done to harmonise the LCA approaches adopted within other existing environmental declaration programmes, and also because the EPD for construction products (materials and technologies) occupies a dominant share among all EPDs being developed. However, when conducting LCA for non-construction products, deviations from the general LCA methodology adopted within the Programme are allowed when this is appropriate and permitted within the applicable PCR or other relevant standards.

If the LCA requirements in the GPI and the PCR differ, the requirements of the PCR shall prevail.

B1. MODELLING APPROACH

Modeling approach within Type III Environmental Declarations Programme "EPD Center" is attributional LCA (as opposed to a consequential¹³ LCA), which means that:

- specific or average data shall be used (i.e., not marginal¹⁴ data),
- allocation issues that cannot be avoided by sub-dividing a unit process into two or more sub-processes shall be addressed by allocation, e.g. based on mass, economic value, or other reasonable allocation approaches,
- Example: within the attributional LCA, it is not allowed to apply system expansion under study beyond the system boundaries established by the PCR; thus, "substitution" or use of credits (offsets) for avoided impacts on the environment is not allowed.

The purpose of this approach is to ensure the ability to trace information, documented and available for verification, and to ensure the principle of "modularity" in the EPD.

If the PCR allows for the impact of using recovered material or energy recovery outside the product system boundary to be declared in module D (see Section B7.5), then the LCA modelling will then use a consequential approach and therefore the indicators in module D should be declared separately. Except for module D, the product system model should not include any other processes or mechanisms outside the product system boundary, including carbon offsetting, etc.

B2. DECLARED/FUNCTIONAL UNIT

The declared or functional unit is the reference unit to which the environmental performance of the product is related. Functional unit is defined as a quantified performance of a product system and a declared unit is defined as a quantity of a product.

The declared/functional unit used for a specific product group (category) shall be specified in the PCR. The PCR may allow several declared/functional units for different product subcategories. However, the declaration of the LCIA and LCI results for each individual EPD shall be made per declared/functional unit.

¹³ The attributional approach to LCA allows us to determine what share of the global "environmental burden" is attributed to a particular product. The consequential approach to LCA provides an assessment of how the production and use of a product affects the global "environmental burden".

¹⁴ Marginal data is data that characterizes the "best" or "worst" scenario of environmental impact.



The declared/functional unit shall be clearly defined and measurable. In practice, the declared/functional unit consists of the product function based on its qualities or properties (e.g. for paint, the surface coated with a certain level of brightness/transparency; for thermal insulation, the ability to prevent heat loss) and its quantitative assessment using one or more units (e.g. 1 m^2 of coated surface, with a coating durability for 10 years (for paint)).

The declared/functional unit shall be expressed in SI units (kg, J, meters, etc.), but other units may be used if they are considered more relevant (e.g. kW for power and kWh for energy). If applicable, conversion factors shall be provided to convert the declared/functional unit into a single unit of product, e.g. in its commercial form.

If the product function at the use stage is known and can be clearly defined, the functional unit shall be defined in the PCR. Examples of functional units are:

- for transport or services: the carriage of a given number of passengers over a given distance, e.g. 1 passenger per 1 km,
- for products applied to surfaces: the covering of a given surface area for a given time, e.g. covering (applying) 1 m^2 of wall surface with the product(s) for a period of 10 years,
- for energy: the provision of a given type and quantity of energy, e.g. 1 kWh of electricity supplied to the consumer.

If the product function at the use stage is unknown, or if the product can be used for several different functions, or if the function cannot be clearly defined, a declared unit may be used instead of a functional unit. A declared unit may, for example, be suitable for intermediate products that may be further processed or combined with other products to produce a final product. Although a declared unit is defined as a quantity of product, regardless of the required functional characteristics, the definition of a declared unit should be relevant to typical uses of the product.

Examples of declared units:

- an item or set of items, such as 1 brick or 1 piece of furniture,
- the mass of a product, such as 1 kg of cement,
- the volume of a product, such as 1 liter of water or 1 m^3 of ready-mixed concrete.

Please note that the use of a declared unit may reduce comparability between EPDs. Therefore, to improve comparability between EPDs based on a declared unit, it is important to indicate technical properties relevant to the application/use of the product. The PCR may include rules on technical properties that shall be indicated (see Section B2.1).

The reference flow is the quantity of product per declared/functional unit. This may be one product, several products, or part of a product. In the case of a declared unit, the reference flow corresponds to the declared unit.

To determine the reference flow of a functional unit, the rules described in the following example should be followed.

Example: if the functional unit for an elevator is 1 tonne of cargo transported over a distance of 1 km, i.e. $1 \text{ t} \cdot \text{km}$ of transported cargo. If we assume that the service life of one elevator corresponds to $500 \text{ t} \cdot \text{km}$ of transported cargo, then the reference flow will be $1/500 = 0.002$ elevators.

B2.1 TECHNICAL SPECIFICATION, LIFESPAN, AND REFERENCE SERVICE LIFE (RSL)

A PCR may establish rules for declaring the technical characteristics of a product, for example, within the description of its properties and functions. The technical specification shall include sufficiently detailed information to enable the user of the EPD to assess the technical characteristics and applicability of the product for each relevant application.



The technical specification shall include the product reference service life (RSL)¹⁵, if applicable. Product lifespans shall be expressed in appropriate units such as years, operating hours, or kilometres travelled.

Please note that the Estimated Service Life (ESL) is not necessarily the same as the Reference Service Life (RSL) of the product category to which the product belongs. The reference service life of a product category is the nominal lifespan to which the characteristics of all products within the given product category shall be linked when defining a functional unit. If applicable, the reference service life may be defined in the PCR. For example, the PCR may specify that the reference service life of a product category is 10 years (e.g. because this is the typical technical lifespan for the given category) and the functional unit shall perform a certain function within this lifespan. If a product has a (confirmed) estimated service life of 5 years, then to assess the performance (effectiveness) of the functional unit in the LCIA and LCI, two such products shall be assessed or the replacement/repair of the product shall be taken into account. Similarly, if a product has a (proven) estimated service life of 20 years, only half of the useful lifespan needs to be estimated to perform the functional unit.

The RSL shall refer to the declared technical and functional characteristics of the product, be specified under defined reference in-use conditions, and be justifiable and verifiable. For further guidance on RSL of construction products, see EN 15804.

B3. SYSTEM BOUNDARY

The system boundary of the product life cycle (=product system) defines the processes that are to be included or excluded from the LCA. The PCR should establish the product system boundaries for the product categories covered in the PCR.

All environmentally significant processes from “cradle to grave” should be included, so that at minimum 95% of the total energy use, mass of product content, and environmental impact is accounted for (see Section B3.3).

For raw materials, intermediate products, or other products which further processing and/or end use is unknown, the system boundary may be limited to “cradle-to-gate” if all of the following criteria for excluding the end-of-life stage are met¹⁶:

- the product is physically integrated with other products in subsequent life cycle processes (e.g. during installation in a building) and therefore cannot be physically separated from them at the end of life,
- the product or material can no longer be identified at the end-of-life due to a physical or chemical transformation process,
- the product or material does not contain biogenic carbon,
- the EPD shall not be used for business-to-consumer (B2C) communication.

If deviations from the “cradle-to-grave” system boundary are permitted for a product category, and if deviations from the above criteria for excluding an end-of-life stage are permitted in the PCR, they shall be described in the PCR and justified during the PCR development process.

In case the end-of-life is included in the LCA and the “cradle-to-grave” system boundary is to be used, the use stage may still be excluded, if allowed by the PCR. Such exclusion may be relevant to raw materials, intermediate products or other products for which the end use is unknown, and shall be justified during the PCR development. The use phase should be included in the LCA for products that involve operational use during or as a result of their installation in a construction project or other methods of their use.

¹⁵ The expected service life of a construction product under reference service conditions, which can serve as a basis for assessing the service life under other service conditions (according to EN 15804).

¹⁶ The first three criteria are adapted from EN 15804; the last criterion is adapted from ISO 14025.



B3.1 LIFE-CYCLE STAGES AND INFORMATION MODULES

Due to different data quality requirements and for a unified presentation of the results, the product life cycle shall be divided into the following stages and information modules (according to EN 15804), hereinafter referred to as “modules”, unless otherwise specified in the PCR:

- PRODUCT STAGE, modules A1-A3:
 - A1: Raw material extraction and processing (e.g., mining, agricultural and forestry operations), production of intermediate materials and components (e.g., including transformation processes such as rolling, drawing and extrusion), processing of secondary material input (e.g., recycling processes), production of distribution and consumer packaging, etc.
 - A2: Transports to the manufacturer of the product
 - A3: Manufacturing of the product (often, but not always, these are processes under the operational control of the owner of the EPD)
- DISTRIBUTION AND INSTALLATION STAGE, modules A4-A5:
 - A4: Transport of the product to the building/installation site/user, including storage of product (e.g., warehouse and retail operations)
 - A5: Installation of the product, e.g., in a building as part of the construction of the building (e.g., including transports and waste processing of material and product losses arising in A5)
- USE STAGE, modules B1-B7:
 - B1: Use/application/operation of the product (e.g., including direct emissions associated with its use)
 - B2: Maintenance of the product
 - B3: Repair of the product
 - B4: Replacement
 - B5: Refurbishment
 - B6: Energy use in use/application/operation
 - B7: Water use in use/application/operation
- END-OF-LIFE STAGE, modules C1-C4:
 - C1: De-construction/demolition/deinstallation
 - C2: Transport to waste processing and/or disposal
 - C3: Waste processing for reuse, recovery and/or recycling
 - C4: Disposal

The above description of the processes included in each module is not exhaustive and there are exceptions as described below (e.g. raw material extraction and processing may appear in modules other than A1). In addition to the above life cycle stages and modules, the PCR may permit the declaration of environmental benefits and burdens from the reuse, recycling and/or recovery of materials and energy outside the product system (module D). If applicable (permitted by the PCR), these results shall be declared separately. Note that module D is not part of the product system and therefore is not considered to be a life-cycle stage.

Not only activities directly related to production on site shall be included (e.g., the use of the production equipment), but also ancillary activities such as heating and water use in production and storage areas.

An EPD shall include all unit processes that are environmentally significant and should be included in each module. A PCR may include additional specifications and guidance on which life-cycle stages, modules and processes should be included or excluded.



Each module shall include the generation of electricity and production of fuels, steam and other energy carriers used in the module. Also, each module shall also include the transport and treatment of waste generated by the processes in that module up to the end-of-waste state or final disposal; except waste processing of the product itself, which is included in module C. The principle of declaring the impacts of activities (processes) associated with the main processes of the product life cycle has been adopted from EN 15804 (as it ensures adherence to the “modular” approach to declaring information) and is illustrated in Figure 1.

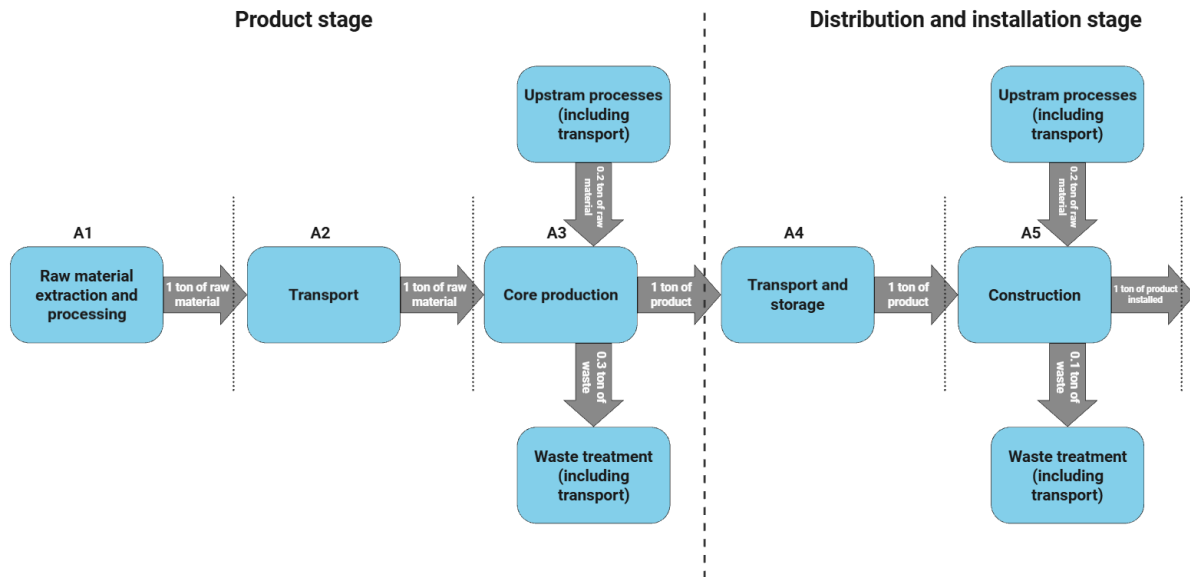


Figure 1. Life cycle processes to be assessed in LCA and to be taken into account in the relevant information modules. *Adapted from GPI for the International EPD System Version 5.0.0 2024-06-19.*

Each module of the use stage (modules B1-B7) includes the production and transport of all materials, components and product inputs into the module, with the exception of the product under study and its packaging from module A. For example, to assess the impacts of a product during its use stage, the impacts from the production and transport of consumables used during maintenance (B2) or new components/spare parts of the product used for replacement (B4) are modelled. In addition, each module B shall include the handling of waste generated in the module (including, for example, replaced components/parts) until they cease to be waste or are finally disposed of. Module B may contain processes that also occur in module A (e.g. production of spare components/parts); such processes shall be modelled as in module A (e.g. in terms of the use of primary/secondary data, the allocation method applied, electricity modelling).

Depending on market needs, the PCR may require division into other life cycle stages and/or modules. For example, division of the life cycle into upstream, core and downstream processes. In most cases, upstream processes correspond to module A1, core processes to modules A2 and A3, and downstream processes to modules A4 to C4. The PCR may also allocate processes to life cycle stages/modules differently than specified above. For example, the above assignment of processes to life cycle stages/modules may not be applicable for service EPDs, and therefore the PCR may include additional and/or new recommendations and guidance. An example of a tabular format for declaring life cycle modules is presented in Table 2.

B3.1.1 Excluded processes

Business travel of personnel, travel of personnel to and from work, and research and development activities shall be excluded unless otherwise specified in the PCR.

Processes excluded based on the rules in this section shall not be considered when calculating the percentages for the application of the cut-off rules in accordance with Section B3.3.



B3.1.2 Infrastructure and capital goods

In general, infrastructure and capital goods¹⁷ should not be included in LCA. In cases where it is not appropriate to exclude infrastructure and capital goods from the LCA (e.g. because of the significant contribution of products within the product system boundary to the LCIA results), these goods may be included in the scope of the LCA (product system). Examples of such assets and goods are:

- the building in which the product or raw materials/components under investigation are manufactured,
- the equipment used in the production of the product or its materials/components,
- the vehicles used for transportation in the product system.

For example, if an EPD is developed for electricity from a solar or wind power plant, the power plant itself is considered the product being examined and is not considered an infrastructure/capital good in this case. However, the buildings and equipment that produce the components of the wind turbines and solar panels are considered an infrastructure/capital good. Similarly, if an EPD is developed for a vehicle, the vehicle is considered the product being examined and not an infrastructure/capital good.

When modelling infrastructure/capital goods, their impact is calculated taking into account the estimated service life of the given facility/good. Thus, the impact of these processes for disclosing in the EPD should take into account, for example, $1/X$ of the impact of these infrastructure facilities/capital goods, where X is the estimated service life of these facilities/goods in years.

Infrastructure/capital goods may be included if the overall LCI dataset includes infrastructure/capital goods and it is not possible, with reasonable efforts, to exclude data on infrastructure/capital goods from that dataset.

A PCR may require, recommend, or permit certain infrastructure/capital goods to be included. If this is done, the PCR should provide rules and guidance on how to model such infrastructure/capital goods.

If infrastructure/capital goods are included in the system boundary, this should be described in the EPD, unless they contribute less than 10% to the results of all environmental impact indicators reported in the EPD (from cradle to end of life). In such cases, it is still permitted to describe the inclusion of infrastructure/capital goods. The description shall include the life cycle stages or processes for which the infrastructure/capital goods are included. In addition, the description should indicate the type of infrastructure/capital goods included (e.g. plant building, production equipment, vehicles, transport infrastructure, energy infrastructure). If infrastructure/capital goods are included in the overall LCI dataset used in the LCA modelling, the name of the dataset (including the database from which it was obtained) shall be stated in the EPD if the full dataset (i.e. not just infrastructure/capital goods) contributes more than 5% to the overall result of any of the environmental impact indicators.

Processes excluded under the rules of this section are not taken into account in calculating the percentages for the application of the cut-off rules in accordance with Section B3.3.

B3.2 OTHER BOUNDARY-SETTING RULES

Below are the default system boundaries for LCI. These rules may be further described or revised in the PCR.

- Boundary in time:
 - the period over which the input and output data of the production system are taken into account should be 100 years from the year that the LCA model best represents, considering the representativeness of the inventory data.

¹⁷ Capital goods - products that are used within the product system under consideration, are not consumed during the production or use of the product and retain their functions for more than three years.



- Boundary to nature and other product systems.
 - Flows shall in general be traced so that the main inputs to the LCI are resources from nature and outputs are emissions to nature. Co-products, and waste that is processed until the end-of-waste state is reached, may enter/leave the product system from/to other product systems. Agriculture, forestry, aquaculture and similar production systems are part of technical systems, i.e. elementary flows that arise from inputs (e.g. fertilizers) and end up in water, soil or air shall be taken into account.
- Geographical boundary.
 - The geographical boundary shall reflect the physical reality (representativeness) of the product under study, taking into account the representativeness of technology, input materials and input energy.

B3.3 CRITERIA FOR THE EXCLUSION OF INPUTS AND OUTPUTS (CUT-OFF CRITERIA)

Criteria for excluding LCI data (cut-off rules) are intended to facilitate data collection and support efficient product system modelling. All available data shall be used, cut-offs should be avoided and shall not be done to “hide” data. Any application of the cut-off rules, including LCI data excluded based on cut-offs, shall be described in the EPD.

The default cut-off rule is 5% at the module level (A1, A2, A3, etc.) or, if the system of modules is not used, per life-cycle stage (e.g., upstream, core, downstream). In other words, the included LCI data shall together cover at least 95% of the input and output data, both in mass and energy, for each module/life cycle stage. Even if below the 5% cut-off rule, inputs/outputs that are known or expected to contribute more than 5% to the results of any of the environmental performance indicators shall be included in the calculation. The 5% cut-off does not apply to the LCI results.

The exclusion of LCI data based on the cut-off rule should be based on sensitivity analysis and/or conservative assumptions in combination with plausibility considerations and expert judgement. The justification should be documented in such a way that the verifier can independently assess (verify) the justification. For example, the completeness of the included LCI data can be verified by comparison with LCI data from similar processes or national greenhouse gas emission databases.

Deviations from the above rule of exception may be established in the PCR. If exceptions are established, this shall be justified in the process of developing the PCR.

B4. ALLOCATION RULES

Allocation: Partitioning the input or output flows of a process or product system between the product under study and one or more other product systems (from ISO 14050). In other words, it is the distribution of impacts (environmental performance) associated with an input to a process or product system onto the outputs of that process/product system.

Co-products are “any of two or more products coming from the same unit process or product system, but which are not the subject of assessment” (ISO 14040). In industry terminology, the terms “co-products”, “minor products” or “by-products” are sometimes used to refer to co-products. This GPI implies that by-products, unlike co-products, are not a planned and intended result of the manufacturing process.

Waste is “substances or materials (objects) that are generated during production, performance of work, provision of services or during consumption, which are disposed of, intended for disposal or are subject to disposal in accordance with this Federal Law” (definition from Russian Federal Law No. 89-FZ). Another clarification is that waste, if it is ultimately used for a specific purpose, requires treatment so that it reaches end-of-waste state and thus leaves the production system. A flow of material or energy reaches end-of-waste state when all the criteria for the end-of-waste state are met (see Section B4.2). This is a general rule that allows one to distinguish between by-products and waste and to decide which allocation procedure to use. There is an exception to this general rule, adapted from EN 15804:



- all outputs from the processes of maintenance, repair, replacement or refurbishment (or similar processes in module B/use stage) and dismantling, disassembling or demolishing products in module C/end-of-life stage shall initially be considered as waste. In other words, such (post-consumer) outputs of modules B (use stage) and C (end-of-life stage) shall be modelled as waste and shall be assumed to leave the product system when the end-of-waste state criteria are met (subject to the waste allocation rules in Section B4.2).

The applicable allocation rules (as specified in the GPI and/or applicable PCR and standards) shall be followed for the entire product system, i.e. also for processes modelled using generic datasets from databases. Therefore, generic datasets from databases may have to be modified before being used in the product system model. Such modifications may include conservative assumptions. Generic datasets that do not conform to the applicable allocation rules and cannot be modified or used as conservative may only be used if the deviation is of minor importance to the LCA results. The deviation shall be clearly stated and justified in the LCA report, and the allocation method used shall conform to the allocation rules of ISO 14044.

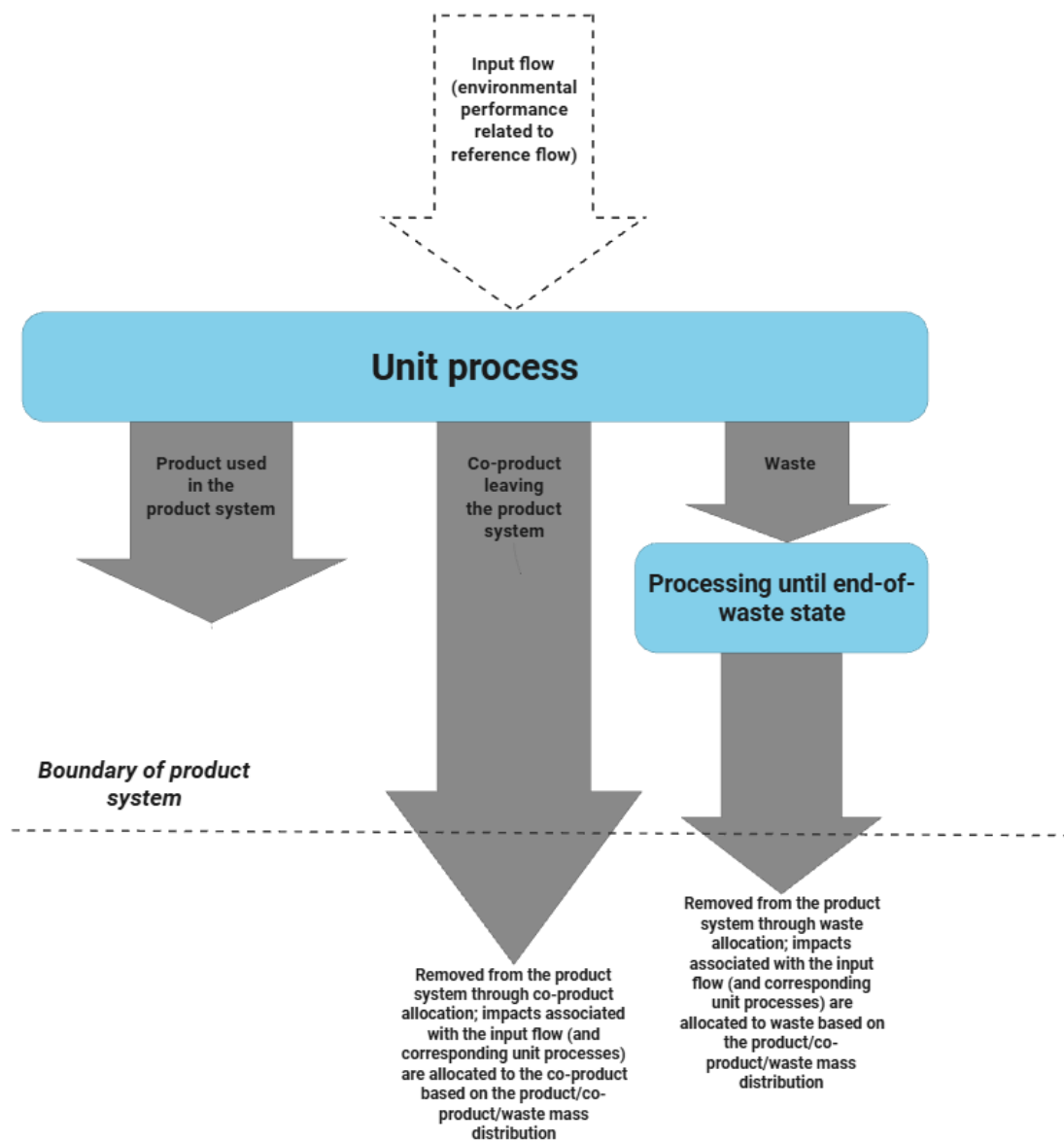


Figure 2. Illustration of when to use co-product or waste allocation. *Adopted from GPI of the International EPD System Version 5.0.0 2024-06-19.*



The PCR should specify the allocation method to be used for each key process in the product category where allocation difficulties can be expected. If the PCR prescribes economic allocation, it should explain the base values (e.g. revenue or profit) to be used.

Figure 2 illustrates when the allocation of co-products and waste should be applied respectively.

B4.1 ALLOCATION OF CO-PRODUCTS

When allocating co-products, the sum of the inputs and outputs allocated to the product and the co-products shall be equal to the total inputs and outputs of the allocated unit process, and consistent allocation procedures shall be applied uniformly to similar inputs and outputs of processes of the product system under consideration. This means that no double counting or omission of inputs or outputs through allocation is allowed (unless a conservative assumption is made, see below).

The following stepwise procedure shall be applied for allocation of co-products:

1. allocation shall be avoided, if possible, by dividing the unit process into two or more sub-processes and collecting LCI data for each sub-process. This option shall not be used for joint co-production processes. According to ISO 21930 a joint production process is a process that produces one or more co-products or by-products, where the output share does not or cannot be changed.
2. allocation shall be based on physical properties (e.g., mass, volume) when
 - a. there is a relevant underlying physical relationship between the products and co-products, and
 - b. the difference in revenue per mass (or per energy unit in case of electricity, heat or etc) from the product and co-products is low. A relevant underlying physical relationship exists when the amounts of inputs and outputs are changed by quantitative changes in the amounts of products or functions delivered by the system under study.
3. in all other cases, the allocation should be based on the economic value of the product and co-products as they leave the unit process. Economic value may, for example, be the revenue generated by the output and each co-product. Revenue is price multiplied by output. Representative values (e.g., rolling annual averages) should be defined for both price and output. If an economic allocation is used, the LCA report should include a sensitivity analysis examining the impact of the choice of economic value.

Conservative assumptions may be made in the allocation of co-products when the effort of allocation is not proportionate to any increase in accuracy. For example, one may assume that the flows leaving the product system under study have no economic value and therefore do not allocate an environmental burden to them (which gives the same results as if the exclusion rule were used, but note that the EPD shall still describe the allocation method used as an allocation of co-products). Moreover, if a co-product of a previous product system is an input to the product system under study, the conservative assumption is that this flow carries an environmental burden. Ultimately, the conservative assumption should always allocate a greater environmental burden to the product that is the subject of the EPD than would be allocated by a strict application of the allocation procedure.

If the PCR allows the declaration of module D, the identified co-products should not be taken into account when modelling the product system of module D.

Note that heat generated in industrial installations or in the tertiary sector¹⁸ (often referred to as surplus heat or waste heat) that is subsequently used (e.g. in a district heating/cooling system) shall be allocated as a co-product, usually using economic allocation at the point of sale. This means that for users of such heat, an environmental burden is “assigned” to the flow as if it were a “product”.

¹⁸ The service sector, which includes transport, communications, trade, tourism, healthcare, etc.



B4.2 ALLOCATION OF WASTE

The allocation of waste (impacts associated with waste) should be based on the polluter-pays principle. This means that any benefits and “credits” from recycling a material flow after it has reached end-of-waste state (i.e. outside the product system) should not be attributed to that material flow in its product system. Instead, these “benefits” are credited to the subsequent user of the recycled material in the subsequent product system. Thus, the impacts (ecological footprint) associated with the recycled material when it is used in the subsequent product system will be taken as zero.

This method is sometimes called the cut-off method (approach). The main rationale for its use in EPD is that it supports the modularity principle, i.e. it allows for the modular use of EPD in a product supply chain.

The end-of-waste state is reached when all the following criteria are fulfilled (adopted from EN 15804):

- the recovered material, component or product is commonly used for specific purposes
- a market or demand, identified, e.g., by a positive economic value, exists for such a recovered material, component, or product
- the recovered material, component or product fulfils the technical requirements for the specific purposes and meets the existing legislation and standards applicable to products; and
- the use of the recovered material, product or construction element will not lead to **overall adverse environmental or human health impacts**.

If the user of such a flow collects/receives the recovered material/component/product for free but pays for transportation, the material/component/product is considered to have a positive economic value at the time of collection. In other words, the end-of-the-waste state is achieved before transportation.

The above-mentioned “Overall adverse environmental or human health impacts” refers to the maximum values of pollutant content established by regulations. If the amount of hazardous substances in waste exceeds these limits or has one or more properties listed in the applicable legislation (e.g. Russian Federal Law No. 89-FZ “On production and consumption waste” and its amendments), this does not allow the waste to reach the end-of-the waste state.

Also, the definitions according to Federal Law No. 268-FZ “On Amendments to the Federal Law “On Production and Consumption Waste” and Certain Legislative Acts of the Russian Federation” apply to the definition of the end-of-the waste state (= “secondary resource” or “secondary material”):

- **secondary resources** are wastes which or parts of which can be reused for the production of goods, the performance of work, the provision of services or the generation of energy and which are obtained as a result of the separate accumulation, collection or processing of waste or are generated in the production process
- **secondary materials** are products obtained from secondary resources directly (without processing) or in accordance with technological processes, methods and techniques provided for by documents in the field of standardization of the Russian Federation, which can be used in the production of other products and (or) other economic activities

At the system boundary, cut-off allocation shall be applied, i.e., all unit processes before the point of end-of-waste shall be assigned to the product system generating the waste and all unit processes after the point of end-of-waste shall be assigned to the subsequent product system.

Waste management processes – transportation, processing, disposal/landfilling, classified as hazardous (I - III waste classes in Russian Federation), if they are not processed and reclassified into a product based on the above criteria, will always belong to the production system that produces this waste.



If it is not known whether the end-of-waste criteria are fulfilled, a conservative assumption shall be made and the incineration/landfilling processes of the waste in question should be assigned to the production system under study.

As described in the introduction to Section B4, certain output flows from module B (use stage) and module C (end-of-life stage) leaving the product system shall initially be considered being waste and shall leave the product system upon reaching the end-of-waste state. If such flows never reach the end-of-waste point, the system boundary for the subsequent product system shall be set after the last joint unit process. For example, if a material/component has a positive economic value after dismantling the product in module C1 (end-of-life stage) (i.e. there is a market demand for the material/component without any further sorting, transport or processing), the material/component shall leave the product system immediately upon dismantling. In such a case, any environmental burden from subsequent sorting/transport/processing is transferred to the product system in which the recycled/reused material/component is used.

Waste may have a negative economic market value, and then the end-of-waste state is usually reached after (part of) waste processing at a time when the waste already has a positive market value. This allocation method in most cases corresponds to the juridical and financial obligations of the company "producing" the waste. This method is illustrated in Figure 3. In cases where the market value of the waste is always positive and where the end-of-waste state is reached at the time of the lowest market value of the waste.

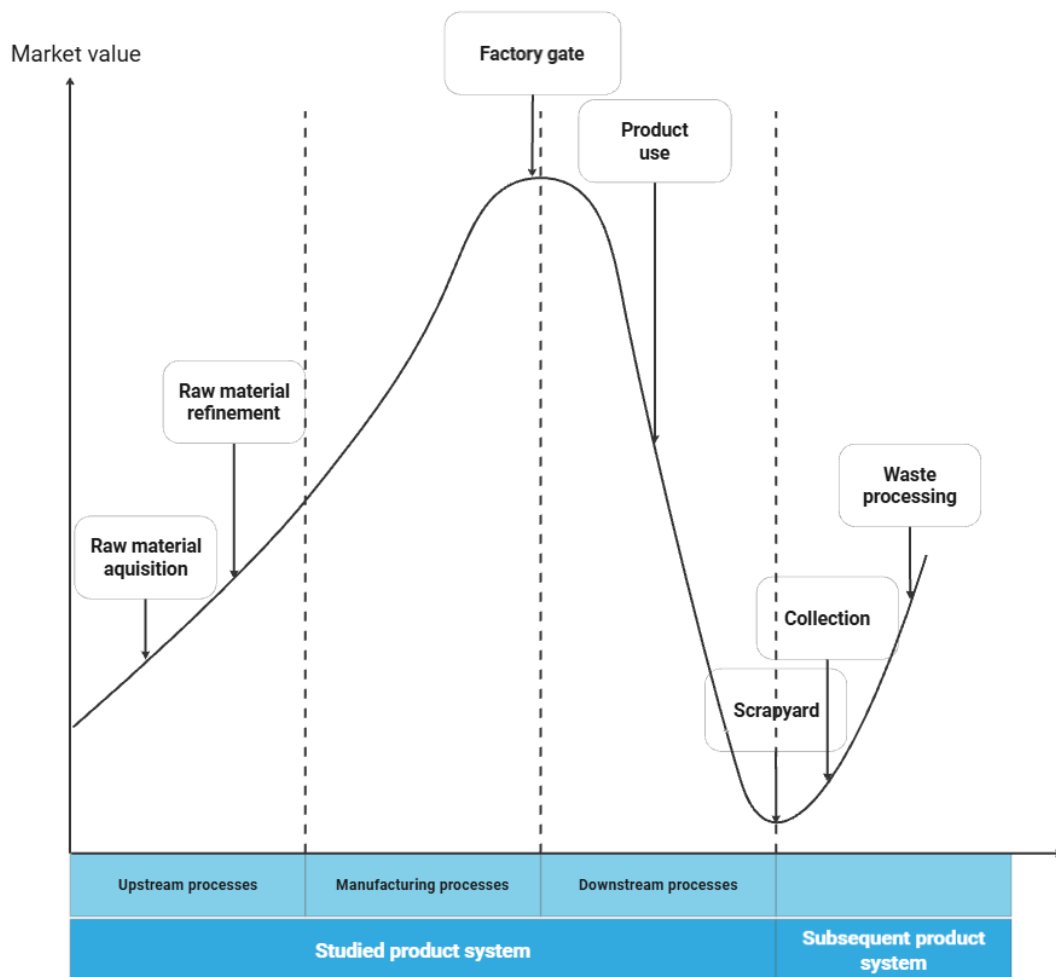


Figure 3. An example of where the system boundary between subsequent product systems involving reuse, recycling and recovery processes is set based on the allocation procedure described in the text. Adapted from GPI for the International EPD System Version 5.0.0 2024-06-19.



Internal waste that is recycled within the same production process in which it was generated should not be considered as secondary material (raw material/resource).

For waste incinerators that are paid to burn material (i.e. the waste has a negative economic value), end-of-waste state is reached after incineration (regardless of energy efficiency). This means that all environmental burdens associated with the collection, pre-processing and incineration of waste shall be assigned to the product system generating the waste, and that all environmental burdens of processes after the end-of-waste point, such as those associated with the use of energy from waste, shall be assigned to the product system using the energy. Conversely, if end-of-waste state is reached before incineration, then the environmental burdens of incineration of the waste (and processes occurring before incineration but after end-of-waste state, if any) shall be assigned to the product system using the energy. For example, this is the case if the incinerator pays for the material (i.e. the economic value of the material is positive) or receives it or collects it free of charge, and all other criteria for the end-of-waste state are also fulfilled. When incinerating waste without energy recovery, the environmental burden associated with collecting, pre-processing and incinerating the waste is imposed on the production system that produces the waste.

When landfilling waste, the environmental burdens associated with landfilling and landfill gas capture and incineration, if any, shall be assigned to the product system generating the waste. The burdens associated with energy use, if any, shall be assigned to the product system using energy.

For EPDs of construction products

For waste that has not reached end-of-waste state prior to incineration in module C (at the end-of-life stage), the energy efficiency of the incineration process determines whether it should be assigned to modules C3 or C4.

If the energy efficiency of waste incineration plants in operation and permitted before 2009 is equal to or higher than 60%, or 65% for plants permitted after 2009, the incineration process is considered an energy recovery process and shall be assigned to module C3. If the energy efficiency is below 60/65%, the incineration process is considered a disposal process and shall be assigned to module C4. An exception is the incineration of hazardous waste (I-III hazard classes according to Russian legislation), which shall always be assigned to module C4.

This rule was adopted from EN 15804, where “energy efficiency” is incorrectly referred to as “thermal energy efficiency” (although both the heat and electricity removed from the incineration plant shall be taken into account when calculating energy efficiency). EN 15804, in turn, refers to the EU Waste Framework Directive (European Commission 2018), which assigns the so-called “R1” status to waste incineration plants with an energy efficiency equal to or greater than 60/65%.

B5. DATA AND DATA QUALITY RULES

When conducting an LCA, it is necessary to assess the quality of the data used. Specific rules and requirements for data quality for each of the modules (stages) of the life cycle are given in Section B7.

B5.1 DATA CATEGORIES

Life cycle inventory (LCI) data are classified as primary data, (specific data and some types of generic data), representative secondary data and proxy data, as defined below:

- primary data (specific data and some types of generic data) which includes:
 - LCI data collected from the manufacturing plant where product-specific processes are carried out
 - LCI data collected at other stages of the life cycle of the product under study, such as site-specific data on the production of materials provided by contracted suppliers



- LCI data from secondary data sources (e.g., databases, literature) on transportation or energy/fuel resources (e.g. electricity, heat and different types of fuels) that are combined with collected primary data on energy (quantity and structure of electricity, heat and fuel resource production, etc) and transportation (vehicle data, fuel consumption and type of fuel used, transport distance, load factors, etc). If there is no contractual instrument for demonstrating the origin of the electricity on the market that meets the requirements of Section B6.2, data on the consumption mix of the market shall be considered primary data. The reason for considering the generic LCI data on transport and energy/fuel production as primary data in combination with primary activity data is that the representativeness of the LCI data is largely determined by the activity data of the production site. Other generic LCI data (e.g. on material production) is not qualified as primary data, even if combined with primary activity data, because representativeness is less dependent on activity data.

— secondary data, e.g. from databases or literature, divided into:

- representative secondary data: LCI data that meet the data quality requirements specified in Section B5.3,
- proxy data: LCI data that do not fulfil all the data quality requirements of representative secondary data in Section B5.3.

Primary data shall be used (at least) for processes over which the product manufacturer (in EPDs of services: service provider) has operational control. Primary data shall also be used for other processes (e.g. for electricity generation, if electricity generation takes place on the manufacturer's site under the operational control of the manufacturer), if available, otherwise secondary data may be used. The PCR may establish stricter rules for using of primary data in selected processes outside the operational control of the manufacturer.

Representative secondary data should be used where they are representative for the purposes of the EPD, such as for raw materials purchased on the spot (wholesale) market.

If data that meet the requirements for primary or representative secondary data are not available, proxy data may be used. Proxy data should not contribute more than 10% to the results of any of the impact indicators.

B5.2 DATA QUALITY REQUIREMENTS FOR PRIMARY DATA

When using primary data, the following requirements shall be met:

- data should be averaged over at least one year of operations (this year does not need to be a calendar year); deviations shall be justified. A deviation may be justified, for example, for batch production a few days a year, or if the product is not yet, or recently, on the market, see Section B9.3 and Section B9.4,
- when data is averaged over several machines or manufacturing sites, the production volume per machine/site shall be accounted for
- the period for data collection should be as recent as possible; deviations shall be justified. A possible justification for a deviation is when disruption in the recent year effects representativeness of the data
- the data shall not be more than seven years old and shall be representative for the validity period of the EPD (if not, the EPD shall be updated, see Section 7.8)
- impacts associated with inputs to and outputs from the product system shall be accounted for over a period of 100 years
- data shall comply with the rules on system boundaries and the cut-off rule of this GPI and applicable PCR



B5.3 DATA QUALITY REQUIREMENTS FOR REPRESENTATIVE SECONDARY DATA

When using representative secondary data, the following requirements shall be met (which may be further specified in the PCR):

- the reference year (which does not need to be a calendar year) shall be as current as possible (no more than 10 years), and should be representative for the validity period of the EPD
- the 5% cut-off rule (as described in Section B3.3) shall be met on the level of modules/life-cycle stages
- the technological, geographical, and temporal coverage of the data shall as much as possible reflect the physical reality of the declared product/product category
- the data shall be checked for plausibility (e.g., by mass or energy balance, or by comparisons with other relevant sources of information)
- datasets from databases should be from the latest version of the database. If not, the database version shall not be older than two years counting from when the EPD was published with a new validity period

Examples of data that do not meet the above requirements and are therefore classified as “proxy data” are:

- extrapolated data whose reference year is more than 10 years old
- data based on a different geographical scope
- data based on a different (but similar) chemical/material/fuel than what is actually used in the manufacturing.

B5.4 DATA QUALITY ASSESSMENT PROCEDURE

A data quality assessment shall be done and reported in the LCA report. This assessment shall cover data that together contribute to at least 80% of the results of each of the declared environmental impact indicators. The data quality assessment shall cover at least geographical, technical and temporal representativeness of the data, and shall also take into account the precision, completeness, consistency and sources of the data. The assessment may be done using the data quality levels and criteria schemes of UN Environment Global Guidance on LCA database development¹⁹ or the PEF method²⁰ (European Commission 2021). Both frameworks are described in Annex E of the European standard EN 15804. A summary of the assessment shall be included in the LCA section of the EPD. The PCR may set additional requirements for the data quality assessment.

In addition, for all processes contributing with more than 10% to the GWP-GHG results of modules A1-A3 (or upstream and core processes), the following shall be declared in the Environmental Performance section of the EPD:

- type of source: “database”, “data from supplier”, “EPD”, etc.
- source: database name and its version number, provider of collected data (e.g. “EPD owner”, “supplier” provided that the data for the GWP-GHG indicator is provided by the supplier), Programme name and EPD registration number (or the mark “confidential” if the EPD does not imply publication in open sources), etc.
- reference year
- data category: “primary data” or “secondary data” (optionally divided into “representative secondary data” and “proxy data”)
- share of GWP-GHG results of modules A1-A3 (cradle-to-gate, i.e., upstream and core) coming from primary data

The above information shall also be reported for processes in modules A1-A3 (cradle-to-gate) that contribute less than 10% to the GWP-GHG category, but this does not have to be done for every

¹⁹ GLOBAL GUIDANCE PRINCIPLES FOR LIFE CYCLE ASSESSMENT DATABASES A Basis for Greener Processes and Products (United Nations Environment Programme, 2011)

²⁰ <https://eplca.jrc.ec.europa.eu/EnvironmentalFootprint.html>



process. In addition, the reference year(s) of the data used in modelling processes in module A3 (core processes) shall be provided, even if they contribute less than 10% to the GWP-GHG results of modules A1-A3. Databases (including version number) shall also be reported for processes in modules A4-C (downstream processes) that contribute more than 10% to the GWP-GHG results across all product life cycle stages included in the boundary.

The overall share of primary data contributing to the GWP-GHG results in modules A1-A3 (cradle-to-gate) shall also be reported. If this proportion exceeds 90%, ">90%" may be reported.

In connection to the reported shares of primary data, the EPD shall include the following statement: "The share of primary data is calculated based on GWP-GHG results. It is a simplified indicator for data quality that does not capture all relevant aspects of data quality. The indicator is not comparable across product categories."

The share of representative secondary and proxy data may also be reported in the EPD.

The procedure for calculating the shares of primary data should be described in the LCA report.

When the EPD is developed using another EPD(s) as a data source, it may not be possible to calculate the share of primary data (for example if the other EPD has not reported this, or the underlying LCA data cannot be accessed). In this case, an estimate of the share of primary data can be made based on the information available in the EPD used as a data source. If such a simplified approach is used, and the reported share of primary data is above 30%, the following statement shall be included in the EPD: "The reported share of primary data is associated with uncertainty, as one or several EPDs that are used as data source lack information on the share of primary data used." Alternatively, it can be conservatively assumed that the EPD used as a data source is based on 0% primary data.

Table 6 provides the examples of how to disclose data quality information.

Table 6. Example for the declaration of sources and share of primary data

Process	Source type	Source	Reference year	Data category	Share of primary data, of GWP-GHG results for A1-A3)
Generation of electricity	Database	Ecoinvent v3.10	2024	Primary data	15%
Production of polyethylene	Collected data	EPD owner	2024	Primary data	10%
Production of steel	EPD	EPD (EPD International), S-P-XXXX	2023	75% - primary data 25% - secondary data	25%
Production of aluminium	Database	Gabi v2022.2	2022	Representative generic data	0%
Production of acrylates	Literature	ИТС НДТ 31-2021 Производство продукции тонкого органического синтеза	2017-2021	Proxy data	0%
Total share of primary data, of GWP-GHG results for A1-A3					50%



B6. OTHER LCA RULES

B6.1 DETERMINING RECYCLED CONTENT, BIOGENIC CARBON OR “EMBEDDED” GREEN ENERGY IN PRODUCTS VIA A MASS BALANCE APPROACH

Mass balance approaches are sometimes used in LCA to claim share of the "embedded" biogenic carbon, renewable energy, recycled material, and other similar indicators in products. This approach is applied at the level of a company (e.g., an integrated chemical or metallurgical plant) rather than the product system as a whole. It does not take into account the physical relationship between the inputs and the final composition of the product. With a mass balance approach, a product can be claimed to contain a certain share of biogenic content, "embedded" renewable energy, or recycled material even if that content/energy/material is not physically present in the product.

This approach is not in line with EN 15804 and is not currently accepted by most existing environmental declaration programmes. Therefore, this approach shall not be used to declare the relevant indicators in EPDs that will be used for communication in international markets.

For the purpose of declaring the content of recycled content in a product, only the recycled material that is used as raw material in the main production process of the product (i.e., physically “integrated” into the product) should be considered. Information on the content of recycled material is declared in the section of the EPD with the relevant information, as well as in the section with content information (see Section A4.6).

Other exceptions are possible in the applicable PCR, as long as this does not violate the applicable standards (e.g. EN 15804 for construction products).

B6.2 ELECTRICITY MODELLING

Possible sources of electricity input used in the production system (adopted from ISO 14067) can be:

- internally generated,
- from a directly connected supplier,
- from a grid.

In cases where the electricity is generated by the company itself (e.g. on-site, internally generated) and this electricity is consumed by the company to produce the product under study, and no contractual instruments are transferred to a third party, then this electricity should be modeled in the same way as the life cycle of the product is modeled.

If, during its own generation, the manufacturer sells this electricity under contractual instruments, then the electricity should be modeled in the same way as if it were supplied from the power grid (see below).

Contractual instruments are any type of agreement between two parties for the purchase and sale of electricity, related to the parameters of energy generation, as well as the division of obligations under these parameters, for example:

- certificates of power generation parameters, for example,
 - registered name of the power plant and the owner company,
 - source of electricity,
 - power and quantity of renewable energy supplied,
- certificates confirming the generation of electricity using renewable energy sources (REC),
- certificate of Origin (GO, Guarantee of Origin),
- certificates for electricity produced in an environmentally responsible manner (“green” certificates).

For the modelling of electricity from a directly connected supplier, data for that electricity, obtained from the supplier, should be used, if there is a dedicated transmission line between the supplier and the production site using the electricity and no contractual instruments have been sold to a third party. If there is no dedicated transmission line or if contractual instruments have been sold to a third



party, the electricity shall be modelled as it was from the grid (see below). If data cannot be obtained from the supplier, proxy data based on the same source of electricity generation can be used.

For the modelling of electricity from the grid, market-based modelling shall be used (except for specific processes, see Section B7). When using a market-based modelling and the necessary information is available (the structure of the electricity sales market for the region in question), contractual instruments (e.g., Guarantees of Origin) may be used to demonstrate that a specific electricity mix has been used. The contractual instrument shall ensure reliability, traceability, and the prevention of double counting. To ensure this, the contractual instrument shall:

- convey information related to the electricity delivered:
 - generator/provider of the electricity,
 - type(s) (s) and quantity of electricity,
 - characteristics of its generation (production method, production efficiency, etc.),
 - purchaser of the contractual instruments,
 - period for issue and validity of the contractual instruments,
- be assured with a unique claim,
- be traceable and redeemable, retired or cancelled by or on behalf of the reporting entity,
- be produced in the country or within the market boundaries of the market where electricity is consumed, if the grid of two or more countries is interconnected,
- be valid for at least the upcoming six months from the date of publication of the EPD, and the producer shall commit to purchasing contractual instruments for the entire period of the EPD (that contractual instruments continue to be purchased shall be checked in the follow-up procedure set out in Section 8.3.8).

Furthermore, the contractual instrument shall specify the addresses of the power plants, tracking numbers and information on the presence of a certificate on direct coupling (yes/no). Unless otherwise specified, this shall be justified in the LCA report.

The certificate on direct coupling states that the contractual instrument is linked to the electricity used and that the electricity producer (power plant) supplies it together with the electricity to the electricity supplier.

The amount of electricity represented by the purchased contractual instrument in one year, shall correspond to the amount of electricity (for which contractual instruments are claimed) used to produce the corresponding annual sales volume of the product.

The above criteria for contractual instruments combine the criteria of the standards ISO 14067, EN 15941, ECO Platform²¹ (“Verification guidelines for ECO EPD programmes”, version 07 and “LCA calculation rules and specifications for EPDs” version 01).

The EPD should provide information on how electricity has been modelled for electricity used in A3/core processes and other processes under the control of the EPD owner. For example, the EPD shall indicate whether a contractual instrument has been used and/or whether the electricity has been modelled using a scenario that is representative of the geographical scope under consideration. For these processes, the EPD should also indicate the energy source (mix of sources) behind the electricity used and its climate impact expressed in kg CO₂ eq/kWh (using the GWP-GHG indicator). The EPD shall also provide information on how the electricity has been modelled for other upstream and downstream processes, where applicable and if such information is available.

If data for modelling specific electricity directly from the supplier under contractual instruments is not available, the next preferred options in the modelling hierarchy are modelling based on the residual electricity mix of the grid or consumption mix of the market (see Section B7 for specific rules for each lifecycle stage).

²¹ Association of Environmental Declaration Programmes ECO Platform – <https://www.eco-platform.org/>



The residual electricity mix is the mix when all contract-specific electricity that has been sold to other customers has been subtracted from the total consumption mix.

If the data on the residual grid mix of the market is not publicly available, it can conservatively be assumed to be the consumption mix of the market minus the renewables of that mix.

If the electricity mix changes during the EPD validity (for example, if the contractual instruments are no longer valid or if the electricity mix they represent changes) in a way that affects the results or other contents of the EPD, the rules set out in Section 7.8 of the GPI shall be applied. Such an update may be made even if the change has not been in place for one year.

For an entity (e.g. a manufacturing facility) that produces more than one product, contractual instruments for electricity shall not be assigned to specific products unless there is a separate electricity supply (a spatially separated electricity supply) and a separate electricity supply contract. Accordingly, if a purchased electricity contract is done at the facility level, any contractual instruments purchased should be assigned equally across all products produced at that facility. If an entity produces multiple products, the contractual instruments purchased in one year will therefore correspond to the amount of electricity used to produce the relevant annual sales volume of all products.

Internally generated electricity that exits the product system (e.g. sold to a third party) shall not be subtracted from inputs of electricity. Instead, benefits from exported electricity should be reported in module D (if the PCR for the category in question allows reporting of module D).

Note: for electricity markets without contractual instruments fulfilling the above criteria, the residual mix will be identical to the consumption mix.

B7. SPECIFIC RULES PER LIFE-CYCLE STAGE AND MODULE D

Below are the default data quality requirements and other LCA rules per life-cycle stage and for module D. Additional specifications, additions or deviations to these rules may be included in the PCR. For example, if the PCR requires an alternative division into life cycle stages and/or modules, it shall describe how the rules below are to be applied in relation to this division.

B7.1 PRODUCT STAGE, A1-A3

PRODUCT STAGE extends from the extraction of any energy or material resources from nature (see Section B3.2) upstream in the supply chain until the product leaves the final manufacturing facility ("gate") of the product stage.

For modelling of the PRODUCT STAGE, the following rules apply:

- primary data shall be used for:
 - processes under operational control of the EPD owner,
 - manufacturing and assembly of the product,
 - The PCR of services may make exceptions to the second point above and instead require primary data on the quantities of materials, chemicals, steam, heat, electricity, etc. used in performing the service (which may occur at another stage of the life cycle, not just the PRODUCT STAGE).
- primary data should be used for:
 - production of main parts, packaging, or main auxiliaries by suppliers, where relevant (e.g., if its contribution is more than 5% to the environmental performance results),
 - data for transportation (means of transportations, fuels, distances, load factors, etc.) of main parts and components along the supply chain, and of raw materials and chemicals to the manufacturing facility/place of service provision,
 - waste treatment processes of manufacturing waste.

If primary data is not used for these processes, this shall be justified in the LCA report.



In cases where primary data are not available and are not required by the above points or the applicable PCR, secondary data may be used (see Section B5.1).

If the consumer packaging displays the logo of the EPD owner, the LCA report shall report to what extent the EPD owner has direct control of the production of this packaging.

- electricity used in A1-A3 processes shall be modelled according to this priority:
 - modelling of specific structure of electricity generation produced or purchased from an electricity supplier, supported by a contractual instruments (e.g., certificates) as provided by the electricity supplier,
 - modelling based on the residual electricity mix on the market; if the composition of the residual grid mix has not been publicly disclosed or is not available at all, it can be conservatively assumed that it represents the consumption mix on the market minus the renewable electricity of that mix,
 - electricity consumption mix on the market. This option shall not be used for electricity used in A1-A3 (upstream and core) processes over which the manufacturer (often the EPD owner) has direct control.

B7.2 DISTRIBUTION/INSTALLATION STAGE, MODULES A4-A5

The DISTRIBUTION/INSTALLATION STAGE extends from the moment the product leaves the final manufacturing facility gate of the product stage until the end user starts using the product.

Note that this stage includes the production, transport, and end-of-life processes of any waste that is generated in this stage, as was explained in Section B3.1. This means that some processes in this stage may be the same as in the PRODUCT STAGE (A1-A3), and thus are subject to the same data quality requirements and LCA rules as A1- A3 processes, since the modelling shall be uniform for all processes regardless of the module/life cycle stage to which they are assigned.

For modelling of the DISTRIBUTION/INSTALLATION STAGE, the following rules apply:

- primary data shall be used for processes under operational control of the EPD owner
- data for the DISTRIBUTION/INSTALLATION STAGE are usually based on specific or assumed scenarios, but primary data should be used when available and relevant. Any scenarios used in the modelling should be clearly described in the EPD (e.g. distances and modes of transport in module A4 or the method of installation/use of products in module A5)
- transportation of the product to the installation/customer shall be described in the EPD, if relevant, and be modelled according to this priority:
 - modelling based on actual transportation modes and distances to a specific customer or market, representing the geographical scope of the EPD.
 - modelling based on weighted average of transportation modes and distances, based on transportation to several customers or markets, representing the geographical scope of the EPD.
 - modelling based on the default transportation scenario of relevance to the product category and (for the product category) common markets, as specified in the PCR.
- electricity used in transportation or construction/installation shall be modelled using the electricity consumption mix on the market, except for processes under direct or indirect operational control of the EPD owner, for which the electricity modelling hierarchy of Section B7.1 shall be followed. The electricity mix used in these processes shall be documented in the EPD, if relevant. Indirect operational control means that the EPD owner enters into an agreement with the company in direct control of the downstream processes (e.g. transportation of finished products) that guarantees the use of a specific electricity mix, supported by a contractual instrument. In such a situation, requirements on the documentation on the purchase of contractual instrument is the same as if the process was under direct operational control of the EPD owner



- end-of-life processes of the packaging of the product shall typically be included in module A5. The modelling of these and other end-of-life processes in modules A4-A5 shall follow the rules for defining end-of-life scenarios outlined in Section B7.4.

B7.3 USE STAGE, MODULES B1-B7

The USE STAGE extends from the moment the end user starts using the product (after, e.g., installation) until the product “leaves” its place of use and enters the next process (e.g., an end-of-life process or transport to waste treatment/landfill/recycling). Note that this stage includes the production of consumables, replacement parts, etc., used in the USE STAGE, as well as end-of-life processes of any waste that is generated in this stage.

To provide consistency between EPDs for the same product category, the PCR shall:

- clearly indicate if the USE STAGE shall, should or may be included,
- define which USE STAGE processes that shall be included or excluded (any exclusion shall be justified),
- clearly indicate if the USE STAGE shall be modelled using default or actual scenarios, and which scenarios shall, should or may be used are recommended and/or may be used,

For modelling the USE STAGE, the following rules apply:

- primary data shall be used for processes under operational control of the EPD owner,
- data for the USE STAGE are usually based on scenarios, but actual data should be used when available and relevant. Any scenarios used shall be clearly described in the EPD,
- data on the emissions from the USE STAGE should be based on documented tests, verified studies in conjunction with average or typical product use, or recommendations concerning suitable product use. Whenever applicable, test methods shall be internationally recognised,
- electricity shall be modelled using the electricity consumption mix on the market, except for processes under direct or indirect operational control of the EPD owner, for which the electricity modelling hierarchy of Section B7.1 shall be followed. The electricity mix of the use/operation shall be declared in the EPD, if relevant,
- for processes that also occur in modules A1-A3 (e.g., production of replacement components/spare parts), the modelling shall follow the data quality requirements and LCA rules for A1-A3 processes, as the same process shall be consistently modelled,
- the modelling of any end-of-life processes (e.g. waste management of consumables) in modules B1-B7 shall follow the rules for defining end-of-life scenarios outlined in Section B7.4.

B7.4 END-OF-LIFE STAGE, MODULES C1-C4

The end-of-life treatment processes for products (waste) may depend on the waste treatment facility and the available waste management alternatives where the product is to be disposed of/landfilled. For these reasons, the END-OF-LIFE STAGE may be modelled using one or several scenarios. When using more than one scenario, the results of the most likely scenario are declared in the main results of the environmental performance section and the others scenarios are declared in a separate subsection with additional information (see Section A4.8 of Annex A). When defining end-of-life scenarios, the following general rules (adapted from EN 15804) should be taken into account:

- scenarios shall be realistic and representative for the most probable end-of-life treatment alternatives for handling products of a given category considering the geographical scope of the EPD
- scenarios shall not include processes or procedures that are not in current use, or which have not been demonstrated to be practical
- the assumed scenarios shall be described in the EPD, in a way that makes it clear that they reflect possible and realistic end-of-life treatment alternatives in specific markets. The description shall include distances and means of transports in module C2.

In addition, the following rules apply when modelling the use stage:



- primary data shall be used for processes under operational control of the EPD owner
- electricity use shall be modelled using the electricity consumption mix on the market, except for processes under direct operational control of the EPD owner, for which the electricity modelling hierarchy of Section B7.1 shall be followed. The electricity mix of the end-of-life stage shall be documented in the EPD, if relevant

Rules in PCR may differ from those specified above. Such deviations shall be justified during the development of the PCR.

B7.5 CONSEQUENCES OF RECOVERED MATERIAL/ENERGY BEYOND THE PRODUCT LIFE CYCLE (MODULE D)

Module D declares the “net” environmental benefits and burdens (environmental consequences) of the net flows of recovered materials (for reuse, recycling, or energy recovery) or exported energy (recovered energy from, e.g., waste incineration with energy recovery) that have met the end-of-waste criteria and leave modules A-C. The modelling of these potential benefits and burdens the product life cycle is conceptually different from the approach used to model modules A-C. Therefore, the results of module D shall be declared and considered separately from the results of modules A-C, and not be included in any declaration of aggregated results.

The PCR shall define if module D is required, recommended, permitted, or not permitted for the product category.

The following modelling rules apply for module D:

- assumptions used in modelling module D, including information on the net flow of material/energy entering module D, shall be transparently declared in the LCA report and in the EPD
- net output flows of recovered material/energy from modules A-C shall be taken into account in module D, i.e., the outputs minus the inputs of the same flow in the product system/life cycle stage under consideration. This flow can be positive or negative. Data on the formation of co-products in modules A-C shall not be taken into account for the calculation of the benefits to be declared in module D
- module D shall include the benefits from avoided production (including the upstream environmental burdens) of materials/energy substituted by the recovered materials/energy. The substituted material/energy, and its production, shall be assumed to be the average on the market/grid structure as defined by the geographical scope of the EPD. The substituted material/energy, and its production, shall not be modelled using marginal LCI data (as often done in consequential LCA modelling (see Section B1))
- when modelling benefits/burdens outside the product system, benefits/burdens from further processing of the recovered energy/material until it is functionally equivalent to the assumed substituted material/energy should be included. The efficiency of these processing steps should also be taken into account
- if the recovered energy/material is of lower quality than the substituted energy/material and thus not functionally equivalent, a quality adjustment factor (0-100%) shall be applied, e.g., based on the price ratio. For example, if the quality adjustment factor is 50%, 1 tonne of the recovered material shall be assumed to replace 0.5 tonne of the substituted material
- the terms used in the previous bullet points (“benefits from avoiding the production”, “substituted material/energy”, etc.) reflect the case when the net flow of recovered materials/energy is positive. When the net flow is negative, module D will instead reflect the burdens of a net loss of recoverable materials/energy
- module D is based on an assumed scenario and declared results are highly dependent on the assumptions made. The final results for module D can be negative (an environmental benefit) or positive (an environmental burden).



B8. ENVIRONMENTAL PERFORMANCE INDICATORS

The results of the environmental performance indicators (indicators of environmental impacts, resource use and waste/output generation based on LCA) shall be reported in the EPD per declared or functional unit and life cycle stage (A1-A3, A4-A5, B1-B7, C1-C4 or upstream, core, downstream processes) and, if applicable, separately for module D.

The total results for all included life cycle stages may, shall or shall not be declared, depending on the applicable PCR. Life cycle stages do not include module D. The results of module D should never be added to the results of the life cycle environmental performance of the product, which shall also be stated in the applicable PCR.

A PCR may require or recommend certain processes or modules to be declared separately from other processes/modules in a life-cycle stage, if relevant for the product category.

The Programme website (www.epdcenter.org) specifies which indicators and accompanying inventory and impact assessment methods that shall be used as default (default list). Deviations from the default list of indicators/categories, as well as additionally declared indicators, may be specified in the PCR. The Programme website also provides guidance and explanations on the assessment of inventory results and life cycle impact assessment methodology related to specific indicators.

Older versions of the default indicators and methods shall be valid in parallel to the latest version during a transition period. The transition period shall be at least 90 days from the publication of the new version of the LCIA indicators and LCI methods. Information on such transition periods will be published on www.epdcenter.org.

Apart from the mandatory indicators specified in the PCR, additional environmental performance indicators based on LCA may be declared in the EPD if they are applicable and relevant for the product category under consideration, their inclusion in the EPD is justified, suitable methods are used, and the results are traceable. Additional indicators are declared separately from the mandatory indicators. If additional indicators may appear to the reader to display duplicate information, the EPD shall contain an explanation of the differences between the declared indicators.

Apart from the default LCI indicators of the Programme or other indicators specified in the PCR, the EPD may also specify other (additional) LCI data if it is relevant and useful for the EPD users. Such indicators shall be disclosed separately in the EPD, in section with additional information/

Conversion factors may be included in an EPD for the purposes of:

- converting the declared LCIA and LCI results of a product group to results for specific products within the group,
- converting the declared LCIA and LCI results to results for another declared/functional unit.

For the first of the two above purposes, the conversion factors may be applicable to the results of all declared modules or to a subset of modules (e.g. A1-A3), and to all declared indicators or to a subset of indicators of the LCIA and LCI (e.g. total greenhouse gas emissions from all emission sources - GWP-total). When calculating the conversion factors planned to be displayed in the EPD, only a linear relationship should be taken into account so that the declared results can be multiplied by a certain factor to calculate the results for a specific product or other declared/functional unit.

Conversion factors shall be verifiable – input data for the conversion factors shall be provided in the LCA report.

Conversion factors shall be included in the section with additional environmental information (see Section A4.8). However, they may be referred to in the environmental performance section.

Conversion factors shall be applicable only to convert declared results to results for products included in the scope of the EPD, and not intended to be used to convert indicators for products not included in the EPD.



B9. SPECIFIC RULES PER EPD TYPE

B9.1 EPD OF MULTIPLE PRODUCTS FROM THE SAME COMPANY

It is forbidden to declare a set of results, reflecting different products, in the same EPD. However, similar products may be grouped and thus included in the same EPD. Similar products are defined as products with identical or similar functions, produced by the same company at the same or several production sites with the same main steps in module A3/core processes, covered by the same PCR. For an EPD of multiple products from the same manufacturer, the declaration of results is possible according to the following rules:

- **averaging**: declaration of the average LCIA, LCI (and other) indicators for all included products for each declared LCIA and LCI category (indicator). These indicators shall be based on weighted averages that take into account the volumes (mass) of production of the products included in the averaging. In this case, the section of the EPD devoted to the content declaration declares the average content, averaged over all the products included in the EPD
- **representative product**: declaration of the results of one of the included products or the average of a subset of the included products (i.e., one or more representative products). The choice of the representative product(s) should be justified in the EPD, for example, on the basis of production volumes. In this option, the content of the representative product, or the average of the representative products, shall be declared in the content declaration in the corresponding section of the EPD.
- **“worst-case scenario”**: for each indicator and module A-C, declare the highest result of the included products, and for module D, declare the lowest benefit of avoided processes (or highest drawback of compensating processes, see Section B7.5) and the highest environmental load of included processes. In this case, in the EPD section devoted to the content declaration, when declaring the share (%) of recycled and biogenic content in the content of the product or packaging, the lowest value is declared; and if the product/packaging contains components with hazardous properties, their highest value in any of the products included in the EPD is declared.

To present the results in the EPD for the “worst-case scenario”, it is allowed to separately declare the “best” indicators in the GWP-total category separately from the table with the main results of environmental performance. It is also possible to present the “best” results for the products included in the EPD of one company in the section with additional environmental information (see Section A4.8 of Annex A).

For all options, the range of the content of the included products shall be included in the content declaration, in addition to the average/representative/worst-case content as specified above.

For EPDs claiming compliance with ISO 21930, declaring results under the above rules is only possible if none of the declared environmental performance indicators, aggregated across all included modules (A to C), differs by more than 10% between any of the included products.

If the EPD does not claim conformity with ISO 21930, deviations greater than 10% are allowed. In such cases, the LCA report shall include an explanation of the deviation and justification for the grouping of products, and the EPD shall (in the LCA information section) indicate the deviation of each impact indicator result for which the deviation exceeds 10%, and include an explanation for such deviations.

EPDs based on “worst-case scenario” results that do not claim conformity with ISO 21930 are exempt from the requirement to declare a deviation exceeding 10%.

EPD of multiple products shall contain information on the applied result presentation rules in accordance with the one described in Section A4.4 of Annex A.

Please note that the above rules apply to grouping similar products, not identical products. Identical products are defined as products that, for example, are produced at different production sites or on different production lines within the same plant, and also those that are not marketed as different



products and/or that are not otherwise distinguishable to a downstream consumer. This means that product variants that differ in colour, composition, size, configuration, etc., are generally considered to be similar, not identical products. For identical products, variations arising, for example, from multiple production sites, are to be treated like any other change in production, on average over (usually) one year of production (and in such cases, variations above 10% are also permitted when claiming conformity with ISO 21930).

Although the EPD of identical products produced in several production sites is allowed to have a deviation of more than 10%, it is recommended to separate the EPDs per site so that a variation below 10% is met, as certain national regulation considers an EPD to be “product-specific” only when the variation between sites is below 10%.

B9.2 SECTOR EPD

An industry association or any other group of companies may develop an EPD in the form of a sector EPD (Termed “collective EPD” in EN 15941). A Sector EPD declares the average of similar products of multiple companies in a clearly defined sector and geographical area. Similar products are defined as products covered by the same PCR, with identical or similar functions (applying the same declared/functional unit), with the same major steps in the A3/core processes.

For each indicator, results that are considered to reflect the volume-weighted average (if applicable) of the products included in the EPD shall be declared. This average may be calculated based on data collected from all production sites or a sample of production sites presented in the EPD (for rules on determining the sample of production sites, see the requirements of Section 8.3.3 of the GPI). The content declaration section of the EPD also declares the average values for the products included.

The Sector EPD shall describe the products and companies covered by the EPD, as well as how the declared results and average content of the products were calculated, how the averaging was done, the selection of production sites and other similar information to facilitate understanding by users of the EPD. Sector EPDs shall include, on the cover page and in the General information section, a statement that the EPD is a sector EPD. If the GWP-GHG results of a sector EPD differ by more than 10% for modules A1-A3 (A1-A5 for services) between all represented products and sites, or between the products and sites of the sample (if applicable), these variations shall be reported in the EPD and the reason for the variations shall be qualitatively described. If the variation is below 10%, the actual variation or “<10%” shall be declared. If the declared deviation relates to a sample of products/plants, this shall be stated in the EPD. Any reporting of the results of the Sector EPD shall contain information that the results are based on average values obtained for the industry as defined in the EPD. The reporting shall not claim that the results of the Sector EPD are representative of a particular manufacturer/producer or its product.

B9.3 EPD OF PRODUCT NOT YET ON THE MARKET

EPDs may be published for products designed and planned but not yet launched on the market (forthcoming products) provided that the EPD owner has a published and valid EPD for a similar product (as defined in Section B9.1), using the same PCR (i.e., the same version number). The EPD for a similar product shall be published and valid at the time when the EPD for a product not yet on the market becomes published and valid. This means that two EPDs may be published and valid at the same time. A similar product and a product not yet on the market may be included in the same EPD, as may an EPD covering several products. In this case, the disclaimer below shall be adjusted to clearly indicate which product (within a group of products) is not yet on the market.

The LCA model of the forthcoming product shall be based on the LCA model of the similar product. An EPD on a similar product is defined as a sibling EPD when its LCA model only differs from the LCA model of the forthcoming product in terms of the activity data (e.g., different shares of materials, energy use in the production process, or distribution distance). If the LCA model of a valid sibling EPD is used when modelling the forthcoming product, the data quality requirements of this Annex and applicable PCR can be assumed to be fulfilled.



When the differences between products are not limited to activity data but include larger changes in the LCA model (use of different raw materials in the production of the product, different production technologies, etc.), the EPD of the similar product is defined as a non-sibling EPD. If the LCA model of the forthcoming product is based on non-sibling EPD, the EPD owner shall prove that the data quality requirements described in this Annex and the applicable PCRs are met. In such a case, the EPD owner may use available LCI data for comparable technologies existing on the market (e.g. data from other manufacturers) or forecast/extrapolated data to fill the gap in the primary data.

EPDs for forthcoming products shall include, at the cover page and in the product information section, one of the following disclaimers:

- “Product not yet on the market – Results of this EPD shall be used with care as the LCI data is not yet based on 1 year of production which may result in increased uncertainty”
- “<Product name> is not yet on the market – Results of this EPD shall be used with care as the LCI data for this product is not yet based on 1 year of production which may result in increased uncertainty”
- “<Product name 1>, <Product name 2>, and <Product name 3> are not yet on the market – Results of this EPD shall be used with care as the LCI data for these product are not yet based on 1 year of production which may result in increased uncertainty”

Verification of EPD on products not yet on the market shall be carried out in accordance with the principles and procedures specified in Section 8.3 of the GPI.

EPDs of the products not yet on the market shall have the same validity periods as regular EPDs, but shall be updated and re-verified when data for a full year of production is available. This period of time is not related to the date of the initial version of the EPD (see Section 8.3.7 of the GPI) since production may start several months or even years after the EPD was approved. Once this is the case and data is available, the EPD must be updated and re-verified within six months, otherwise it will be withdrawn from publication. The contract with the verifier shall guarantee the verifier's participation in follow-up activities during the EPD validity period (see the second option of the follow-up procedure described in Section 8.3.8 of the GPI).

If it is known that the product will not be produced, the EPD owner shall withdraw the published EPD.

B9.4 EPD OF PRODUCT RECENTLY ON THE MARKET

The LCI data shall be based on at least one year of production. If such data is not available because the product has not yet been produced for one year, the LCI data may be based on data for a shorter period of time, provided that the data can be proven to be conservative compared to one-year data, taking into account the impact of seasonal variations and events affecting productivity (e.g. production downtime due to equipment failure or maintenance). In this case, the EPD shall include one of the following disclaimers on the cover page and in the product information section:

- “Product recently on the market – Results of this EPD shall be used with care as the LCI data is not yet based on 1 year of production which may result in increased uncertainty”
- “<Product name> is recently on the market – Results of this EPD shall be used with care as the LCI data for this product is not yet based on 1 year of production which may result in increased uncertainty”
- “<Product name 1>, <Product name 2>, and <Product name 3> are recently on the market – Results of this EPD shall be used with care as the LCI data for these products are not yet based on 1 year of production which may result in increased uncertainty”

If a product recently on the market is included in an EPD of multiple products from the same company (see Section B9.1), the above disclaimer should be adjusted to make it clear which products (within the product group) have been recently introduced to the market.

An EPD of a product recently on the market shall have the same validity period as the regular EPD (see Section 8.3.7 of the GPI), but shall be updated and re-verified when production data for one full year of production is available. Once such data are available, the EPD update and re-verification shall



be completed within six months, otherwise the EPD shall be withdrawn from publication. The contract with the verifier shall ensure the verifier's participation in follow-up activities for the duration of the EPD (see the second option for the follow-up procedure described in Section 8.3.8 of the GPI).



ANNEX C. GUIDANCE ON COMMUNICATING EPD INFORMATION

C1. EPD OWNERS LIABILITY

An EPD is an informative communication tool that organisations may use to communicate information about the environmental performance of their products throughout the life cycle. The EPD owner and/or the body making the claim is always responsible to ensure that all applicable requirements for environmental claims are met. The information provided in this annex is only intended as general guidelines and may not be complete.

Any environmental claims based on the EPD and use of the EPD logotype should meet the requirements in ISO 14021 (Environmental labels and declarations – Self-declared environmental claims), national legislation, and best available practices in the markets in which the EPD is intended to be used.

C2. DIFFERENT TARGET AUDIENCES

It is important to consider the information needs and awareness of different stakeholder groups and target audiences, such as large businesses, small and medium-sized enterprises, and public procurement agencies. The EPD owner cannot precisely define the audience of the document. For EPDs intended for business-to-consumer (B2C) communication, ISO 14025 sets out additional principles that should be applied. The EPD owner may publish information from several EPDs in a single report or document, for example to facilitate communication or to meet the requirements of procurement processes for similar products. The requirements of Section 3 should apply.

B2C communication of EPDs on construction products based on EN 15804 should comply with requirements on one of the types of B2C communication outlined in EN 17672.