



GENERAL PROGRAMME INSTRUCTIONS

VERSION 2.0

Spring 2020

## CONTENTS

<b>1</b>	<b>INTRODUCTION .....</b>	<b>3</b>
	<i>Transition period for standards .....</i>	<i>3</i>
<b>2</b>	<b>OBJECTIVE .....</b>	<b>4</b>
2.1	SCOPE .....	4
2.2	NORMATIVE BASIS .....	4
<b>3</b>	<b>ORGANISATION .....</b>	<b>6</b>
3.1	THE PROGRAMME OPERATOR .....	6
3.1.1	<i>Secretariat.....</i>	<i>6</i>
3.1.2	<i>Approvals by the Steering committee .....</i>	<i>7</i>
3.2	THE STEERING COMMITTEE .....	7
3.2.1	<i>Steering Committee Members.....</i>	<i>7</i>
3.2.2	<i>Steering Committee chairman.....</i>	<i>8</i>
3.3	THE TECHNICAL COMMITTEE.....	8
3.3.1	<i>Technical Committee members .....</i>	<i>8</i>
3.3.2	<i>Technical Committee chairman.....</i>	<i>9</i>
3.4	VERIFIER GROUP .....	9
3.5	AUTHORITATIVE DOCUMENTS .....	9
3.6	COST AND FEES .....	9
3.7	MUTUAL RECOGNITION.....	9
3.8	REGISTRATION AND PUBLICATION OF PCRS AND EPDs .....	10
3.9	WEBSITE .....	10
3.10	EPD DATABASE.....	10
3.11	TRANSITION PERIODS.....	10
3.11.1	<i>Transition period for standards.....</i>	<i>10</i>
<b>4</b>	<b>PROCEDURES ACCORDING TO EN15804+A1:2013 .....</b>	<b>11</b>
4.1	PCR.....	11
4.1.1	<i>General.....</i>	<i>11</i>
4.1.2	<i>Complementary PCR documents process .....</i>	<i>11</i>
4.1.3	<i>Recognition of PCRs from other EPD programme operators .....</i>	<i>12</i>
4.1.4	<i>Validity and revisions.....</i>	<i>12</i>
4.2	EPD .....	13
4.2.1	<i>General.....</i>	<i>13</i>
4.2.2	<i>Declaration types .....</i>	<i>13</i>
4.2.3	<i>EPD scopes.....</i>	<i>14</i>
4.2.4	<i>EPD development process .....</i>	<i>15</i>
4.2.5	<i>Validity of a registered EPD.....</i>	<i>16</i>
4.2.6	<i>Updating an EPD .....</i>	<i>16</i>
4.2.7	<i>Ownership and use .....</i>	<i>16</i>
4.2.8	<i>Language.....</i>	<i>16</i>
4.2.9	<i>EPDs from other EPD programmes.....</i>	<i>17</i>
4.3	VERIFICATION .....	17
4.3.1	<i>Verification process .....</i>	<i>18</i>
4.3.2	<i>Validity .....</i>	<i>19</i>
4.3.3	<i>Approved verifiers .....</i>	<i>19</i>
4.3.4	<i>Restrictions, expiration and nullification of declarations .....</i>	<i>20</i>
4.3.5	<i>Data confidentiality.....</i>	<i>20</i>
4.4	DATA AND DOCUMENTATION MANAGEMENT .....	20
4.4.1	<i>Basis .....</i>	<i>21</i>

4.4.2	Process .....	21
4.4.3	Maintenance of a publicly accessible list of valid EPDs .....	21
4.4.4	Specific LCA calculation rules and documentation needs .....	21
<b>5</b>	<b>PROCEDURES ACCORDING TO EN15804+A2:2019 .....</b>	<b>22</b>
5.1	PCR.....	22
5.1.1	General.....	22
5.2	EPD .....	22
5.2.1	General.....	22
5.2.2	Declaration types .....	22
5.2.3	EPD scopes.....	22
5.2.4	EPD development process .....	23
5.2.5	Validity of a registered EPD.....	23
5.2.6	Updating an EPD .....	23
5.2.7	Ownership and use.....	23
5.2.8	Language.....	24
5.2.9	EPDs from other EPD programmes.....	24
5.3	VERIFICATION .....	24
5.3.1	Verification process .....	24
5.3.2	Validity .....	24
5.3.3	Approved verifiers .....	24
5.3.4	Restrictions, expiration and nullification of declarations .....	24
5.3.5	Data confidentiality.....	24
5.4	DATA AND DOCUMENTATION MANAGEMENT .....	24
5.4.1	Basis .....	24
5.4.2	Process .....	24
5.4.3	Maintenance of a publicly accessible list of valid EPDs .....	24
5.4.4	Specific LCA calculation rules and documentation needs .....	24
<b>6</b>	<b>HANDLING COMPLAINTS .....</b>	<b>25</b>
<b>7</b>	<b>DEFINITIONS, TERMS AND ABBREVIATIONS.....</b>	<b>26</b>
	<b>APPENDIX A - LIFE CYCLE ASSESSMENT (LCA) METHODOLOGY .....</b>	<b>30</b>
1	ACCORDING TO EN15804+A1:2013.....	30
2	ACCORDING TO EN15804+A2:2019.....	30
	<b>APPENDIX B - ENVIRONMENTAL PRODUCT DECLARATION (EPD) METHODOLOGY.....</b>	<b>32</b>
1	ACCORDING TO EN15804+A1:2013 AND EN15804+A2:2019 .....	32
	<b>APPENDIX C - THIRD PARTY VERIFIERS .....</b>	<b>34</b>
1	REQUIREMENTS FOR THE INDEPENDENCE AND COMPETENCY OF VERIFIERS .....	34
2	TASK OF VERIFIERS .....	35
	<b>APPENDIX D - LCA AND EPD TOOLS, REQUIREMENTS TO VERIFICATION, APPROVAL AND USE .....</b>	<b>36</b>
1	GENERAL.....	36
2	TYPES OF TOOLS .....	36
3	SPECIFICATION OF TOOLS AND WORKING PROCESSES .....	36
4	REQUIREMENTS FOR APPROVAL OF TOOLS .....	41
5	INFORMATION ON EPDS DEVELOPED THROUGH TOOLS.....	44
6	SCOPE AND VALIDITY OF TOOLS.....	44

# 1 INTRODUCTION

The General Programme Instructions of the Danish EPD programme, EPD Danmark, is the main technical document and forms the basis for the overall administration of the programme and requirements for Environmental Product Declarations (EPDs – type III environmental declarations according to ISO14025) published with EPD Danmark.

The instructions are updated regularly and when necessary in order to ensure that the document is updated and in accordance with developments in market conditions, LCA methodology, harmonization and standardization.

These general programme instructions for EPD Danmark shall apply until the programme operator decides to make a revision. The newest version of the programme instruction will always be available on the website of EPD Danmark: [www.epddanmark.dk](http://www.epddanmark.dk).

These general programme instructions are approved by the Steering Committee and shall apply as from February 2020.

References to the General Programme Instructions of EPD Danmark should be given as:

*EPD Danmark, General Programme Instructions, version 2.0, February 2020*

All rights reserved. This document may not be reproduced, transmitted or distributed in any form without prior written permission by the secretariat of EPD Danmark, except for uses permitted by copyright law, e.g. brief quotations embedded in critical reviews.

Please contact the secretariat for questions, comments and/or feedback.

## EPD Danmark



/ Danish Technological Institute  
Building and construction  
Gregersensvej  
DK-2630 Taastrup



[epd-dk@teknologisk.dk](mailto:epd-dk@teknologisk.dk)



+45 7220 2023

## TRANSITION PERIOD FOR STANDARDS

As this version of the general programme instruction presents a transition period between the current standard EN15804:2012+A1:2013 and a revised version EN15804:2012+A2:2019, it contains two sections on procedures according to each version.

By introduction of the new amendment for EN15804 in 2019, there will be a transition period of 3 years (revoking EN15804:2012+A1:2013 by October 2022 the latest). EPDs developed according to either version will be accepted by EPD Danmark, and the EPD validity will be 5 years as stated in EN15804.

## 2 OBJECTIVE

EPD Danmark develops and administers independently verified Type III Environmental Product Declarations (EPDs) for construction products and building-related products.

The objective of EPD Danmark is:

- to support the development and application of verifiable environmental information of construction products in the form of Type III Environmental Products Declarations.
- to support the building industry in the documentation and declaration of the environmental sustainability of products according to legislation and standardisation applying at any time.
- to make it possible for manufacturers of construction products to comply with the new European legal requirements and harmonisation initiatives within environmental sustainability of construction products.

EPD Danmark supports the harmonisation of Environmental Products Declarations for construction products in Europe through its active membership of ECO Platform<sup>1</sup>.

### 2.1 SCOPE

The programme is open for all construction products and building-related products, which comprise products, materials, components, prefabricated elements, building systems along with built-in furniture and textiles which are made for construction works and for use in the building.

EPD Danmark is primarily targeted at the Danish building industry which operates nationally as well as internationally, but it has no geographical limitations. Thus, the programme is open to any manufacturer of a construction product, irrespective of nationality and no matter whether the product is marketed in another country than Denmark.

The communication format for the prepared EPDs is primarily targeted at B2B communication (in accordance with CEN/TR 15941), but does not exclude the application as B2C.

EPDs from EPD Danmark contain no comparative assertions.

Declaration owners must ensure that they are compliant with regulations and national laws in their territory.

### 2.2 NORMATIVE BASIS

Environmental Product Declarations, developed within the framework of the EPD Danmark programme, are in accordance with the following standards:

For dated references, only the cited applies. For undated references, the latest edition of the referenced document (including any amendments) applies.

EN 15804 + A1:2013 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"

OR

EN 15804 + A2:2019 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"

---

<sup>1</sup> [www.eco-platform.org](http://www.eco-platform.org)

EN ISO 14025:2010 – “Environmental labels and declarations - Type III environmental declarations - Principles and procedures”

CEN/TR 15941 – “Sustainability of construction works - Environmental product declarations – Methodology for selection and use of generic data”

EN 15942:2011 – “Sustainability of construction works - Environmental product declarations - Communication format Business-To-Business”

ISO 21930:2017 – “Sustainability in buildings and civil engineering works – Core rules for environmental product declarations of construction products and services”

Environmental product declarations developed within the framework of the EPD Danmark programme must also follow the technical guidance in CEN/TR 16970, supplementing the requirements in EN 15804:

CEN/TR 16970:2016 – “Sustainability of construction works – Guidance for the implementation of EN 15804”

In addition, reference is also made to the standards stated below for Life Cycle Assessment (LCA) and Environmental Product Declarations:

EN ISO 14040:2006 – “Environmental Management - Life Cycle Assessment - Principles and Framework”

EN ISO 14044:2006 – “Environmental Management - Life Cycle Assessment - Requirements and Guidelines”

EN ISO 14020:2002 – “Environmental Labels and Declarations - General Principles”

When applying the amended version of the core PCR, EN 15804:2012 + A2:2019, the following are added to the normative basis:

EN ISO 14067:2018 – “Greenhouse gases – Carbon footprint of products – requirements and guidelines for quantification”

European Commission – Joint Research Centre – Institute for Environmental and Sustainability:  
International Reference Life Cycle Data System (ILCD) Handbook – Nomenclature and other conventions.  
2010. EUR 24384 EN. Luxembourg. Publications Office of the European Union: 2010, ISBN 978-92-79-15861-2

**Suggestions for updating the Product Environmental Footprint (PEF) method**, EUR 29682 EN, Publications Office of the European Union, Luxembourg, 2019, ISBN 978-92-76-00654-1, doi:10.2760/424613, JRC11595<sup>2</sup>

---

<sup>2</sup> This document is also called the “PEF Guidance Document”

## 3 ORGANISATION

The name of the organisation is EPD Danmark. The objective of EPD Danmark is described in section 2. EPD Danmark has no commercial aim, administrative expenses are, however, covered by EPD-holder fees. Fee categories can be seen on the website [www.epddanmark.dk](http://www.epddanmark.dk).

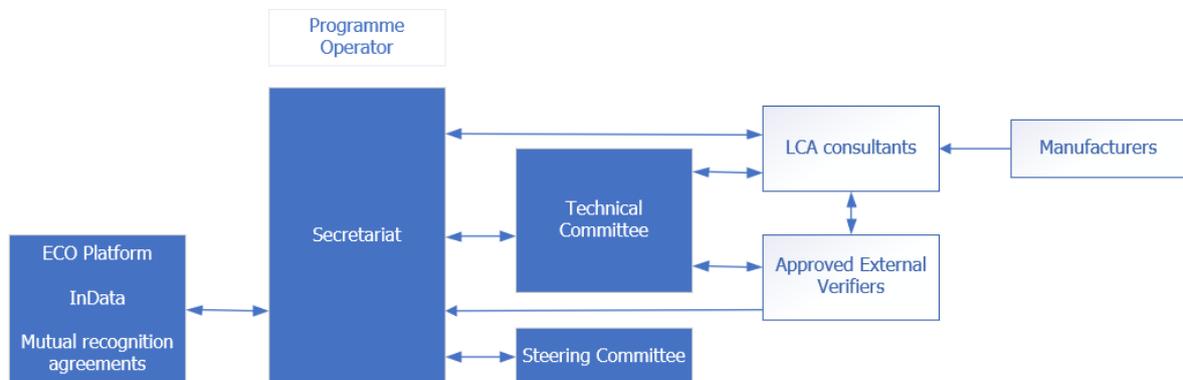
The Danish Technological Institute<sup>3</sup> is legally responsible for EPD Danmark.

EPD Danmark is organised into the following units which are described in sections 3.1 - 3.3.

1. Programme operator
2. Secretariat
3. Steering Committee
4. Technical Committee

Decisions on authoritative documents in EPD Danmark shall be approved by the Steering Committee, cf. section 3.2.

All documents and publications within EPD Danmark will be drawn up in either Danish, English or both.



**Figure 1. Organisational structure of EPD Danmark. Arrows representing contact flows.**

### 3.1 THE PROGRAMME OPERATOR

The Danish Technological Institute is the legal entity acting as programme operator of EPD Danmark with the overall responsibility and the obligations described in the international standard ISO 14025.

The Danish Technological Institute is an independent non-profit institution, which develops, applies and disseminates research and technology based knowledge to the Danish business sector.

The Danish Technological Institute is approved by the Danish *Ministry of Higher Education and Science* as a GTS Institute (Approved Technological Service Institute)<sup>4</sup> and has an extensive and profound knowledge of the building industry and many years' experience in accredited testing, calculations and certification of building materials. The Danish Technological Institute is also a Notified Body according to the Construction Products Regulation and offers specialist advice on e.g. CE-marking of construction products.

#### 3.1.1 SECRETARIAT

The programme operator acts as secretariat, and must carry out several mandatory assignments to run the EPD programme, according to ISO 14025. These tasks are done in cooperation with other stakeholders across the organisational structure, Figure 1, and are described in these general programme instructions.

<sup>3</sup> [www.teknologisk.dk](http://www.teknologisk.dk)

<sup>4</sup> <https://en.gts-net.dk/about-gts/>

EPD Danmark has to:

- develop, maintain and communicate the General Programme Instructions (this document)
- ensure that the Type III environmental declaration requirements are followed
- ensure consistency of data within the programme
- monitor changes in the normative basis as described in 2.2
- develop and maintain the website
- develop, maintain and administer the EPD database
- coordinate activities with the Steering Committee, Technical Committee and the verifiers
- manage the verification procedure for EPDs including the verification template
- develop and maintain EPD- and projectreport templates
- publish verified EPDs on the website
- manage the development of cPCRs
- administer manufacturers' confidential information
- manage complaints
- organize the involvement of stakeholders in programme development
- participate in European harmonisation work and standardisation

### 3.1.2 APPROVALS BY THE STEERING COMMITTEE

Changes in the General Programme Instructions require the approval of the Steering Committee before they are finally adopted. The programme operator may set up technical ad hoc groups to contribute with technical knowledge in connection with the task.

In addition, the programme operator is responsible for ensuring that EPD Danmark is always up to date with the latest standards and that best practice and European harmonisation initiatives within the area are implemented in the programme procedures.

## 3.2 THE STEERING COMMITTEE

The purpose of the Steering Committee (SC) is to ensure reliability, impartiality, consistency and transparency in the authoritative documents and procedures which form the basis of EPD Danmark. The purpose of the committee is also to promote the programme, its objectives as stated in section 2, and the use of EPDs.

### 3.2.1 STEERING COMMITTEE MEMBERS

The Steering Committee consists of permanent organisations (representing business and trade organisations, government and academic communities) appointed by the programme operator. Each member organisation appoints a representative of the organisation to handle the work in the Steering Committee.

The active members of the Steering Committee can be found at the website of EPD Danmark [www.epddanmark.dk](http://www.epddanmark.dk).

The representatives appointed by the steering committee member organisations must have a general and broad background knowledge of construction works, the fields mentioned in 2.1 along with products and product-related environmental issues. In addition, the members must have a thorough knowledge of EPD Danmark, including the content of these General Programme Instructions.

The Steering Committee has four primary tasks:

- Defining the overall direction and priorities of EPD Danmark
- Approval of authoritative documents, cf. section 3.5
- Advise on/recommend regarding ad hoc PCR panel chairmen, cf. section 4.1.2
- Advise on/recommend regarding members and chairman of the Technical Committee (TC), cf. section 3.3

Principal issues concerning the preparation and application of Environmental Product Declarations for construction products, standardization, needs of the industry, etc. may be taken up in the Steering Committee by the programme operator/Secretariat. Any decisions hereon may subsequently be entered in the authoritative documents in connection with a subsequent revision.

The authoritative documents are prepared and revised by the programme operator/Secretariat, and the Steering Committee is responsible for approving these documents prior to their publication and use.

The General Programme Instructions, including descriptions of procedures and provisions concerning the steering committee members and their mandate, shall be approved by a majority of the steering committee members. By an approval of the General Programme Instructions the individual steering committee member confirms that the instructions are in accordance with ISO 14025 and the overall objective of EPD Denmark stated in section 2.

If the General Programme Instructions cannot be approved, a detailed written argumentation for the deviations from ISO 14025 shall be submitted to the programme operator. The General Programme Instructions cannot be approved and applied without a majority approval of the Steering Committee.

At least once a year a meeting will be held between the members of the Steering Committee and the Secretariat. At this meeting the status and challenges of EPD Denmark will be discussed among other things, and there will be a dialogue on the development and operation of EPD Denmark in the coming year as a minimum.

### 3.2.2 STEERING COMMITTEE CHAIRMAN

The Steering Committee shall have a chairman who is elected from among the steering committee members for a period of 2 years. The chairman may be re-elected. The steering committee members will decide on the chairmanship by majority vote. The Steering Committee Chairman shall ensure that EPD Denmark fulfils its overall objectives.

## 3.3 THE TECHNICAL COMMITTEE

The purpose of the Technical Committee (TC) is to ensure the quality of technical aspects regarding LCA methodology, EPD development and the development according to standardization. They are to assist the Secretariat in technical issues, considering appointment of external verifiers and LCA consultants, LCA-related issues, and methodological questions.

### 3.3.1 TECHNICAL COMMITTEE MEMBERS

The Technical Committee (TC) consists of permanent individuals (LCA/EPD experts) appointed by the programme operator. A member of the Steering Committee, or an approved external verifier can be invited to the Technical Committee, if they are qualified, to ensure coherency between organizational parts of the EPD Denmark programme.

The active members of the Technical Committee can be found at [www.epddanmark.dk](http://www.epddanmark.dk).

The Technical Committee must consist of at least five EPD/LCA experts. Their task is to provide professional advice and guidance concerning:

- Verification procedures of EPDs and tools
- Appointment of external verifiers
- Development of new cPCRs
- Proposing measures for the development of technical and LCA-oriented issues related to the programme.

Meetings in the Technical Committee will be held at least once a year, where technical issues are discussed. The Secretariat will invite to these meetings. If urgent matters appear, the Secretariat will initiate additional meetings to discuss specific matters.

The Technical Committee may occasionally seek advice from experts outside the TC.

### 3.3.2 TECHNICAL COMMITTEE CHAIRMAN

The Technical Committee shall have a chairman who is appointed by the Programme Operator, based on advice from the Steering Committee, for a period of 2 years. The chairman may be re-elected. The Technical Committee chairman shall ensure that EPD Danmark fulfils its overall technical procedures.

## 3.4 VERIFIER GROUP

The approved external verifiers are invited to join a technical *forum*. The Secretariat will invite this *forum* to discussions at least once every year, to discuss verification and LCA methodology according to directions set out by the TC, and interpretational questions when assessing EPDs and their LCA.

Participation in the annual verifier group meeting is obligatory for all verifiers, approved by EPD Danmark, and works as proof of continuous training.

## 3.5 AUTHORITATIVE DOCUMENTS

The following documents form the technical basis for the preparation of EPDs in EPD Danmark:

- General Programme Instructions (this document)
- EN 15804 + A1:2013 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"
- OR EN 15804 + A2:2019 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"
- CEN/TR 16970:2016 – "Sustainability of construction works – Guidance for the implementation of EN 15804"
- Complementary PCR (cPCR) documents for specific product categories
- EPD templates

## 3.6 COST AND FEES

Manufacturers who have registered one or more EPDs at EPD Danmark are submitted to a registration fee which covers the development, operation and maintenance of EPD Danmark.

There are three main fee types at EPD Danmark:

- Annual administrative fee
- Annual registration fee for EPDs
- Approval and registration fee for EPD tools

The programme operator sets the price structure, which is available at [www.epddanmark.dk](http://www.epddanmark.dk).

## 3.7 MUTUAL RECOGNITION

EPD Danmark is an active member of ECO Platform with the aim of harmonising and obtaining general recognition of EPDs among European programme operators. EPD Danmark therefore strives to harmonize procedures and content of the General Programme Instructions with other EPD programme operators in order to obtain mutual recognition. Mutual recognition entails that a manufacturer can get an EPD simultaneously registered with several EPD programmes.

A mutual recognition does not necessarily mean that EPDs from the programmes are comparable, as content/requirements to the information contained in the EPDs may still differ, according to the individual EPD programme.

A mutual recognition agreement merely means that the programmes accept procedures, verifications and verifiers of each other, and thus are willing to publish an EPD which has been approved by the other programme without further assessment.

A list of current mutual recognition agreements with single programme operators is available at [www.epddanmark.dk](http://www.epddanmark.dk).

### 3.8 REGISTRATION AND PUBLICATION OF PCRs AND EPDs

The secretariat of EPD Denmark is responsible for publishing the approved EPDs on the website.

When registering an EPD, the LCA consultant must send the documents for verification (EPD, LCA report and supporting documentation) to EPD Denmark along with information about the manufacturer and contact information. EPD Denmark will submit a registration form to the manufacturer/EPD owner, which is to be filled out, before the verification process is started.

EPD Denmark will facilitate the verification by sending relevant documents to an appointed approved external verifier, who will conduct the verification in cooperation with the LCA consultant. The external verifier must submit the signed verification report and final/approved version of the EPD for publishing and the LCA report along with supporting documentation.

An EPD will be published on the website throughout the validity of the EPD (5 years), or until the owner asks for revision, updating or revocation.

EPD Denmark reserves the right to withdraw an EPD if the General Programme Instructions are violated or the owner fails to pay the annual fee.

### 3.9 WEBSITE

The website of EPD Denmark is found at [www.epddanmark.dk](http://www.epddanmark.dk). On this website, the valid programme instructions will be available together with EPDs and PCRs developed and published by EPD Denmark.

Other communication channels (e.g. newsletters and social media) are to complement communication on the website.

The secretariat is responsible for the content and for maintaining the website.

### 3.10 EPD DATABASE

EPD Denmark publishes EPDs on the website [www.epddanmark.dk](http://www.epddanmark.dk).

EPD Denmark will continuously work on optimising the format in which EPDs are available, working on harmonisation and digitalisation of data.

### 3.11 TRANSITION PERIODS

EPDs published by EPD Denmark shall be developed in compliance with the current version of the General Programme Instructions (GPI, this document), along with the requirements given in the relevant standards and PCRs.

All normative documents are subject to periodic revisions, which may lead to gaps between expiry of an old version and publication of the new revision (this is however strived to avoid in EPD Denmark internally) or overlaps between two published versions.

Significant transition periods will be announced on the website, [www.epddanmark.dk](http://www.epddanmark.dk).

#### 3.11.1 TRANSITION PERIOD FOR STANDARDS

By introduction of the new amendment for EN15804 in 2019, there will be a transition period of 3 years (revoking EN15804:2012+A1:2013 by October 2022 the latest). EPDs developed according to either version will be accepted by EPD Denmark, and the EPD validity will be 5 years as stated in EN15804.

## 4 PROCEDURES ACCORDING TO EN15804+A1:2013

### 4.1 PCR

#### 4.1.1 GENERAL

A PCR (Product Category Rules) document defines the specific technical conditions, requirements and calculation rules which are to be applied when preparing an Environmental Product Declaration for a product.

EPD Danmark includes two types of PCR documents:

- A. EN 15804 + A1:2013 - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"
- B. Complementary PCR documents for product categories (cPCR)

All EPDs must always comply with the requirements in EN 15804. In addition, the following types of cPCRs are accepted:

- CEN product TC's cPCR documents
- cPCRs from other programmes successfully audited by ECO Platform<sup>5</sup> or programmes with whom EPD Danmark holds an agreement of mutual recognition, as long as it is clearly stated in the EPD, and as long as it does not conflict with EPD Danmark rules and procedures
- Other cPCR's that fulfils EPD Danmark rules and procedures

It is possible to develop and verify an EPD directly to the EN 15804 standard. If there is no cPCR available, EPDs for construction products are developed only according to EN 15804. An EPD must always state according to which standard the EPD was made.

The international standard ISO 14025 defines the basic procedural requirements for the development of a PCR document and the carrying out of a PCR review.

#### 4.1.2 COMPLEMENTARY PCR DOCUMENTS PROCESS

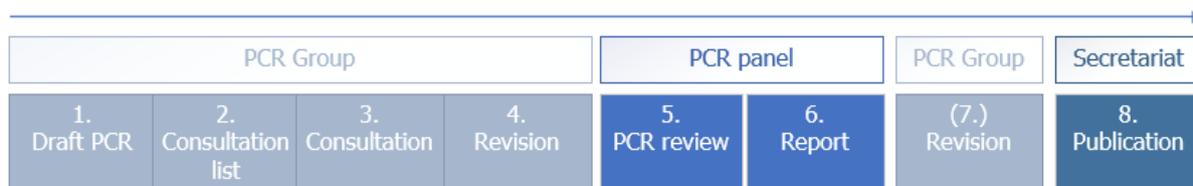
Complementary PCR documents are developed by a PCR group of relevant parties from the industry and LCA specialists.

Product subcategories are defined by EPD Danmark, and basically, they will be in accordance with the harmonised technical specifications (harmonised standards and European Assessment Documents) under the Construction Products Regulation (EU - 305/2011).

To make sure that the process of preparing a complementary PCR document is quick and operational, it should be aimed to limit the total process from the start-up and until the cPCR document is available to a maximum period of 12 weeks.

The PCR group is registered and published by EPD Danmark, stating the expected dates for the open consultation procedure and publication, respectively.

Figure 2 shows an overview of the development of a cPCR document.



**Figure 2. Process for the development of a cPCR document**

<sup>5</sup> <https://www.eco-platform.org/the-eco-epd-programs.html>

The PCR Group shall prepare the first draft on the basis of the template for complementary PCR documents which is made available by EPD Denmark. This template shall always be followed, as this will ensure that all requirements applying to all product categories, based on EN 15804, and all contents requirements have been met.

Together with the preparation of the first draft, the PCR Group shall also draw up a list of the stakeholders who will be contacted directly in connection with the open consultation procedure.

In the open consultation the draft will be made available at [www.epddanmark.dk](http://www.epddanmark.dk) for a period of 25 working days. At the same time the draft will be sent directly to the stakeholders stated on the consultation list. They, too, will have 25 working days to deliver comments and amendments to the draft. After expiry of the consultation period the PCR Group may revise the draft in accordance with the consultation replies received.

The revised draft must be reviewed and approved by an ad hoc PCR panel (consisting of TC members) before they can be published and applied. The ad hoc PCR panel consists of a chairman appointed by the TC and at least two members who have not been involved in the development of the complementary PCR document. The chairman of the PCR panel shall appoint the other panel members. The panel draws up a PCR review report which must include the results of the PCR review and comments and recommendations made by the panel members.

By an approval of a complementary PCR document it is confirmed that the complementary PCR document is in accordance with EN 15804, ISO 14025 and the provisions of these General Programme Instructions.

20 working days at the latest, after their receipt of a complementary PCR document, the panel members shall return the review report.

The PCR review shall show that:

- The cPCR is developed according to EN 15804, the ISO 14040 series and ISO 14025
- The cPCR comply with these General Programme Instructions
- The LCA based data, together with additional environmental information prescribed by the cPCR, give a description of significant product-related environmental considerations.

The final, approved, cPCR document is published at [www.epddanmark.dk](http://www.epddanmark.dk).

#### 4.1.3 RECOGNITION OF PCRS FROM OTHER EPD PROGRAMME OPERATORS

cPCRs from other programmes successfully audited by ECO Platform<sup>6</sup> or programmes with whom EPD Denmark holds an agreement on mutual recognition, as long as it is clearly stated in the EPD, and as long as it does not conflict with EPD Denmark rules and procedures.

If a CEN TC cPCR document exists, this will overrule Programme Operator developed PCR documents for a specific product group, according to ECO Platform guidelines.

#### 4.1.4 VALIDITY AND REVISIONS

An approved complementary PCR document is valid for 3 years. Hereafter the PCR panel must re-evaluate the document and decide on revisions, if any, of the document. After revision and approval or new approval without revision the complementary PCR document will be valid for 3 years.

It is the programme operator's responsibility to carry out the necessary revisions of a complementary PCR document during its period of validity. The involvement of stakeholders shall follow the procedure described in section 4.1.2, and the revised cPCR document must be approved by the panel prior to its publication.

---

<sup>6</sup> <https://www.eco-platform.org/the-eco-epd-programs.html>

## 4.2 EPD

### 4.2.1 GENERAL

ISO 14025 describes the general procedure for development of Type III Environmental Product Declarations and the requirements as regards their contents. In addition, all Environmental Product Declarations published by EPD Danmark shall comply with the provisions of EN 15804, which further specifies the requirements for calculation, contents and format for the product category of construction products.

### 4.2.2 DECLARATION TYPES

EPD Denmark accepts three overall types of EPDs:

- Industry EPDs
- Product specific EPDs
- Project specific EPDs

As there is a significant difference between the three types of EPDs, their data baseline and products represented, it is important that users are aware of these differences.

An approved and verified EPD should always be published/displayed on the website of an EPD programme (for EPD Danmark they can be found at [www.epddanmark.dk](http://www.epddanmark.dk)). The valid version of the EPD is always the one displayed on the website of EPD Danmark

An ordinary EPD will contain two signatures:

- The verifiers signature, which confirms that this verifier has conducted a third-party verification according to the procedures described in this document.
- The programme operator representatives' signature, which confirms that the process of developing, verifying and publishing the EPD has been done in accordance with the procedures in this document.

EPDs developed through an EPD tool will contain additional information and signatures, see Appendix D, section 5.

If unsure whether an EPD is valid or not, please contact EPD Danmark at [epd-dk@teknologisk.dk](mailto:epd-dk@teknologisk.dk).

#### 4.2.2.1 INDUSTRY EPDS

An industry EPD covers several manufacturers, and thus averages data from representative parts of the given industry declared.

An industry EPD can either

1. declare average for one product, where a representative number of manufacturers (representing the majority of market) declare the same type of product. As the industry EPD is an average of the market dominating manufacturers for the given product, there is no requirements as to the variations on input data.

or

2. declare average of multiple products. The same requirements in regard to representativeness as above applies, however the variation between the results of the single different products cannot exceed +/-10%.

An industry EPD must be registered with and published by EPD Danmark.

#### 4.2.2.2 PRODUCT SPECIFIC EPDS

A product specific EPD (product EPD) covers one manufacturer, and can either

1. declare one specific product from one place of production

or

2. declare one specific product as an average from several places of production

or

3. declare average of a cross section of several similar products from one place of production. The variation among results of the single different products cannot exceed +/-10%.
- or
4. declare average of a cross section of several similar products from several places of production. The variation among results of the single different products cannot exceed +/-10%.

A product specific EPD has to be registered with and published by EPD Denmark.

#### 4.2.2.3 PROJECT SPECIFIC EPDs

A project specific EPD (project EPD) is a variation of a product specific EPD, which is developed for a specific product, from a manufacturer to a specific customer and/or project.

A project EPD does not have to be published by (but the tool and coherent logbook does need to be registered with) EPD Denmark. The project EPD represents specific project productions or variations e.g. specific transport distances from 'gate' to 'production site' or a different finishing coating. This type of EPD is typically generated by the use of an EPD tool.

A project EPD must refer to a published product EPD, i.e. a reference product EPD (which provides the manufacturer with a reference number for their project EPD – this reference is to ensure validity period, data validation and -quality along with transparency). If the project EPD varies more than +/- 5% from the reference product EPD, an explanation must be given in the logbook, see further explanation of the documentation requirement for EPDs developed through tools in Appendix D.

#### 4.2.3 EPD SCOPES

According to EN 15804+A1:2013 the LCA based information can be divided into three scopes. The scopes are stated below with the relevant information modules according to EN 15804+A1:2013, see also Figure 3.

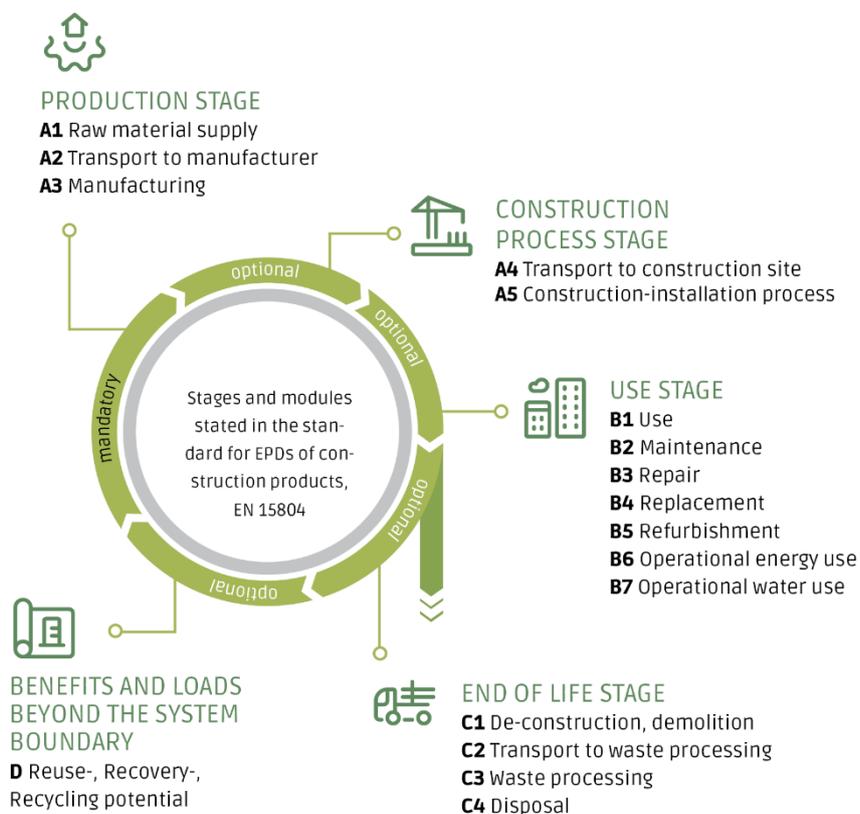


Figure 3. Life Cycle information modules, based on EN15804:2012+A1:2013

- **Cradle-to-gate**  
A1, A2, A3 (Product)
- **Cradle-to-gate with options**  
A1, A2, A3 (Product)  
In addition, one or more optional modules must be declared
- **Cradle-to-grave**  
A1, A2, A3 (Product)  
A4, A5 (Construction)  
B1, B2, B3, B4, B5, B6, B7 (Use)  
C1, C2, C3, C4 (End of life)  
Declaration of module D is optional. (Reuse and recycling potential)

#### 4.2.4 EPD DEVELOPMENT PROCESS

An EPD can be developed/prepared in three ways, which are all accepted by EPD Denmark:

- By traditional process/manual LCA and EPD
- By LCA tool
- By EPD tool

Additional requirements for developing EPDs with a tool, are described in Appendix D. Verification procedures and requirements for all three solutions are described in section 4.3.

##### 4.2.4.1 TRADITIONAL/MANUAL LCA

To have an EPD prepared, the manufacturer can either use an internal LCA expert or if they do not have sufficient expertise, they may find an external LCA expert/-consultant.

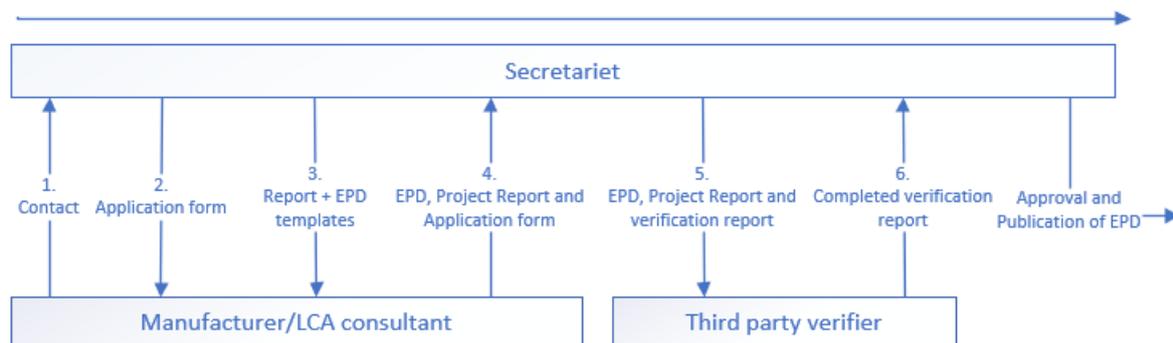


Figure 4. Contact flows for development and verification of EPDs

Either the manufacturer or their LCA consultant must contact EPD Denmark and announce the commencement of the project. EPD Denmark will establish/facilitate the communication between the parties involved throughout the entire project process and will provide an application form for the manufacturer along with templates for the EPD and project report. Requirements for the project report (including LCA methodology) and EPD can be found in Appendix A and Appendix B, respectively.

The project report structure shall follow the corresponding template provided by EPD Denmark and shall document the LCA study, with relevant data and results, prepared for the product. The EPD is prepared on the basis of the project report and its results and in accordance with the provisions of EN 15804 and the EPD template prepared by EPD Denmark.

When the project report and the EPD have been prepared, they are sent to EPD Denmark, who will initiate the verification procedure. The appointed verifier shall draw up a standardized verification report (filled in checklist 1), based on a template provided by EPD Denmark.

#### 4.2.4.2 LCA TOOLS

To have an EPD prepared through an LCA tool, the manufacturer can either use an internal LCA expert or if they do not have sufficient expertise, they may find an external LCA expert/-consultant. This consultant may both develop the tool and develop EPDs through the tool, optimising the process.

Description of the process for developing an LCA tool can be found in Appendix D, section 3.

#### 4.2.4.3 EPD TOOLS

To have an EPD prepared through an EPD tool, the manufacturer must appoint employees who must obtain a training certificate, enabling them to operate the tool.

The EPD tool must be developed by an internal or external LCA expert.

Description of the process for developing an EPD tool can be found in Appendix D, section 3.

#### 4.2.5 VALIDITY OF A REGISTERED EPD

A verified EPD is valid for 5 years from the date of verification. During this period the manufacturer is responsible for informing the programme operator/Secretariat of EPD Danmark and verifier of significant changes made to the product or the processes, which the product goes through during its life cycle and which are of importance to the product's environmental impact (changes in the order of 10%). In such case, the EPD must be updated no later than one year after these changes commence.

For further validity (beyond 5 years) the manufacturer is obliged to renew or update their EPD before expiry.

EPD Danmark reserves the right to withdraw an EPD if the General Programme Instructions are violated or the owner fails to pay the annual fee.

#### 4.2.6 UPDATING AN EPD

In order for a published EPD to be valid it needs to be updated and re-verified at least every fifth year. Also changes leading to an increase in the environmental impact profile of more than 10% will demand a re-verification. The EPD owner may request an update in case of significant improvements. Only the changes affected by the update need to be verified.

On request from the owner, editorial changes to a published EPD (new logo, spelling errors) may be performed by the Secretariat of EPD Danmark without a need for re-verification.

#### 4.2.7 OWNERSHIP AND USE

The manufacturer will get the verified EPD in full and retain full ownership of it, and they are responsible for its information and contents. It is not allowed to quote from or delete passages from an EPD, so that its results, conclusions etc. get another meaning than was originally the intention.

The manufacturer is also responsible for the correctness and completeness of all data stated and applied when preparing the EPD.

EPD Danmark reserves the right to register and publish the EPD in the database of EPD Danmark.

The project report, which is prepared based on the LCA study, is handed out to the manufacturer, who retains full ownership of it. The project report will also be kept confidential by EPD Danmark and will not under any circumstances be published by EPD Danmark. It is not allowed to quote from or delete passages from the report, so that its results, conclusions etc. get another meaning than was originally the intention.

#### 4.2.8 LANGUAGE

EPD Danmark accepts the use of Danish or English.

If a manufacturer wants the same EPD published in both languages, the verifier must approve the data given in both EPDs prior to registration.

If a manufacturer wants an already published EPD translated into a third language (not English or Danish), that might be possible, but only after agreement with EPD Denmark, and in this case a supplementary verification is needed. The manufacturer must provide the translated EPD-text specific for the declared product.

#### 4.2.9 EPDs FROM OTHER EPD PROGRAMMES

Mutually recognized EPDs from other EPD programmes can be made publicly available on [www.epddanmark.dk](http://www.epddanmark.dk), if the manufacturer requests this. The EPDs will be provided with an EPD Denmark front page on which it is stated that the EPD has the status as a 'mutually recognised EPD from <EPD programme>' and to which degree it is representative of the Danish market.

Mutually recognized EPDs from other EPD programmes can also be translated to Danish and published as an EPD Denmark EPD without further verification. In the EPD, the name of the verifier is replaced by the original registration number and name of programme operator.

EPD Denmark has no additional requirements added to the EPD according to EN 15804 and ECO Platform.

### 4.3 VERIFICATION

The verification of an EPD includes an examination of the completeness, plausibility, consistency and transparency of the calculations and information in the project report and the EPD compared to the specifications given in the PCR documents.

The independent verification of the LCA (i.e. the project report), including LCI data and additional environmental information must as a minimum confirm:

- Compliance with EN 15804 and relevant cPCR documents
- Compliance with ISO 14040 and ISO 14044
- Compliance with these General Programme Instructions (the current version can be found at [www.epddanmark.dk](http://www.epddanmark.dk))
- That the evaluation of data comprises adequacy, accuracy, completeness, representativity, consistency, reproducibility, sources and uncertainty
- The probability, quality and accuracy of data from LCA
- The quality and accuracy of supplementary environmental information
- The quality and accuracy of supporting information

In addition, the independent verification of the Environmental Product Declaration (EPD) must confirm:

- Compliance with EN 15804 and ISO 14025
- Compliance with these General Programme Instructions (the current version can be found at [www.epddanmark.dk](http://www.epddanmark.dk))
- Compliance with relevant complementary PCR documents

The verification of project reports and EPDs must follow the general procedures, which are described in ISO 14025 and performed in practice based on EPD Denmark's relevant verification check lists:

- Checklist 1: Conventional EPD + report
- Checklist 2: LCA tool + report
- Checklist 3: LCA tool EPD + report (light)
- Checklist 4: EPD tool + report + reference/test EPDs
- Checklist 5: Internal verification of data collection and use of tool at user

Regarding new PCRs the PCR review and the independent verification of the associated EPD are two separate processes. The independent verification of the EPD can be performed by the PCR panel or an independent verifier who may have been a member of the PCR panel.

Depending on the EPD development method used, see section 4.2.4, the requirements for EPD verification differ. An EPD developed through manual LCA is to be individually verified, whereas tool solutions can be verified without the necessity of the single EPD to be verified, cf. Appendix D.

#### 4.3.1 VERIFICATION PROCESS

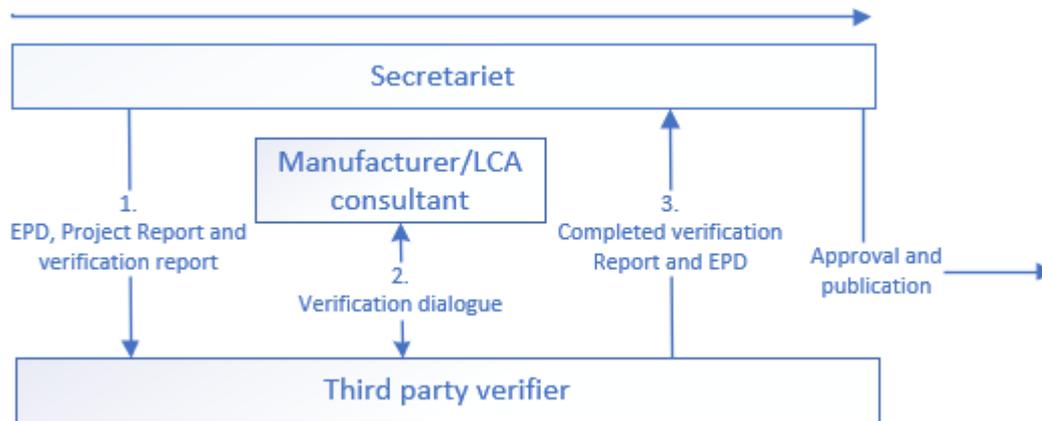


Figure 5. Verification process of traditional/manual EPDs

##### 4.3.1.1 TRADITIONAL/MANUAL LCA

When the project report and the EPD have been prepared by the manufacturer (or their LCA consultant), the documents are sent to EPD Danmark, who will initiate the verification procedure. The appointed verifier shall draw up a standardized verification report, based on a template provided by EPD Danmark, cf. section 4.3.

It is the programme operator's responsibility to appoint a qualified verifier. The Secretariat of EPD Danmark oversees the communication with the verifier and handles the documents which are relevant for the verification. The verifier must verify the EPD and project report and prepare a verification report according to the standardized procedure in the verification template. The verifier must go through the verification procedure within 20 working days after the first receipt.

The verification procedure must confirm that all information given in the EPD accurately reflects the information contained in the documents on which the declaration is based. The verification procedure must also confirm that the information is valid and scientifically well-founded. The verification does not include an audit performed by the verifier at the production site. The data delivered by the manufacturer is only checked for plausibility.

The verification is performed by an independent third party who fulfils the competence requirements stated in Appendix C. It is the programme operators' responsibility to approve verifiers according to these requirements in cooperation with the Technical Committee.

The Secretariat is responsible for keeping a publicly available list of the approved verifiers in EPD Danmark. The list of approved verifiers is available at [www.epddanmark.dk](http://www.epddanmark.dk).

When the EPD is approved by the verifier, the verifier must forward a completed and signed verification report to the Secretariat, who will make the final approval and publication.

The verification procedure is independent of the final approval and publication by EPD Danmark, where the verification is checked for anomalies and irregularities.

The verification report will be kept confidential by EPD Danmark.

#### 4.3.1.2 LCA TOOLS

An EPD developed through a verified LCA tool must be verified by an approved verifier affiliated to EPD Denmark, complying the same requirements as an ordinary EPD.

Further description of the process for verification of LCA tools can be found in Appendix D, section 4.2.

#### 4.3.1.3 EPD TOOLS

EPDs developed through a verified EPD tool do not need an external verification by an approved verifier. The EPD owner must have a trained internal independent reviewer, who is responsible for internal verification.

Further description of the process for verification of LCA tools can be found in Appendix D, section 4.2.

#### 4.3.1.4 EPD NOT APPROVED BY VERIFIER

If the verifier concludes that the EPD and/or project report contains errors and shortcomings to such an extent that radical changes and/or new calculations are necessary, the verifier may declare in his/her report that the EPD cannot be approved in its present form.

EPD Denmark furthermore reserves the right to decide, based on the verification report, that the supporting data for the EPD is inadequate. If this happens, the declaration/approval cannot be issued.

The financial costs involved if an EPD is not approved, will be paid by the manufacturer. It is then the manufacturer's own responsibility to negotiate possible financial compensation with the LCA consultant, if such a consultant has been used.

### 4.3.2 VALIDITY

A verified EPD is valid for 5 years from the date of verification. During this period the manufacturer is responsible for informing the programme operator and verifier of significant changes (more than 10%) made to the product or the processes, which the product goes through during its life cycle and which are of importance to the product's environmental impact. In such case, the EPD must be updated no later than one year after these changes commence.

If a manufacturer changes the production processes or the product constituents to reduce the environmental impacts of the product, the EPD can be updated immediately, disregarding the absence of average data collected for a full year's production. In such a case, the manufacturer must describe the changes in writing including the technical documentation for the expected new data, on which the updated EPD will be based. This requires documentation, explaining the plausibility of the implemented actions and their consequences, e.g. considering the LCI data. Since the new EPD will be based on assumptions, the manufacturer will be responsible for delivering the actual measured data for confirmation. This can only be done after 6 months at the earliest and must be done after 12 months at the latest.

### 4.3.3 APPROVED VERIFIERS

The Secretariat is responsible to ensure that the approved verifiers are qualified and have the necessary competences as regards know-how and experience within LCA and EPD for construction products (see more on these requirements in Appendix C). The Secretariat is supported by the Technical Committee, cf. section 3.3.

The continuation of the approval of the verifiers is revised every three years.

A list of approved external verifiers is available at [www.epddanmark.dk](http://www.epddanmark.dk).

#### 4.3.3.1 VERIFIER INDEPENDENCE

The verifier must always be an independent third party to the manufacturer as well as to the LCA practitioner. This means that the verifier may not be organizationally attached to the manufacturer or the LCA practitioner.

To avoid potential economic or procedural conflicts between the verifier and the manufacturer (or their LCA consultant) during the verification process, a contract must be agreed-upon before the verification process starts. The verifier will receive information on the product, EPD type and length of the EPD and project report and must settle a price on this basis. The contract is between the manufacturer (or the LCA consultant on their behalf) and verifier.

#### *4.3.3.2 COMPETENCE REQUIREMENTS FOR VERIFIERS*

Qualifications and competences are important to ensure the quality of verification and thereby the quality of the finished EPD. It is the aim of EPD Denmark to have the highest quality level that can be expected at the time from the market and which can be mutually recognized by other EPD programmes. See more on these requirements in Appendix C.

The Secretariat undertakes annual meetings with the verifier group, see section 3.4, to update approved verifiers with available knowledge and competences.

### 4.3.4 RESTRICTIONS, EXPIRATION AND NULLIFICATION OF DECLARATIONS

#### *4.3.4.1 MANUFACTURER OBLIGATIONS*

A manufacturer, who has a verified EPD registered with EPD Denmark, is obliged during the entire validity period of the EPD, to notify the verifier through the programme operator of any changes in production, processes, materials, product design and any other information submitted as background information in the EPD and which will therefore have a significant (more than 10%) influence on the data and results stated in the EPD.

A manufacturer should establish routines for an ongoing inspection and follow-up of the product, and such procedures may be connected to any existing environmental management system in the company.

The manufacturer may not publicly use an EPD which has not yet been approved, registered and published by EPD Denmark (project EPDs being an exception, if the reference EPD is published). False or misleading use of the EPD and EPD Denmark's logo must not take place, including the use of the EPD for comparative claims or mixed up with Type I environmental labels.

#### *4.3.4.2 VERIFIER OBLIGATIONS*

Just like the manufacturer, the independent verifier has an obligation to report any violations of the provisions of these general programme instructions and subsequently give instructions as to which corrective measures should be taken.

In cases where a verifier or EPD Denmark has repeatedly notified a manufacturer about necessary corrective measures, and the manufacturer has not taken such measures, EPD Denmark reserves the right to withdraw the verified EPD and deregister it from the database. The EPD will then be invalid indefinitely.

#### 4.3.5 DATA CONFIDENTIALITY

See section 4.4 which shall also apply for verifiers registered with and approved by EPD Denmark.

## 4.4 DATA AND DOCUMENTATION MANAGEMENT

Project specific data are often confidential because of competitive requirements, information protected by intellectual property rights (IPR) and similar legal restrictions.

During the development of an EPD, it will in most cases be necessary to give external experts access to confidential data, production methods, etc.

There is no requirement that such confidential data be made public. Business data identified as confidential and provided in connection with the independent verification process must be kept confidential in accordance with these General Programme Instructions.

#### 4.4.1 BASIS

ISO 14025 defines the basic rules of data confidentiality, which together with the sections below describe the procedures for handling of confidential information in EPD Danmark.

#### 4.4.2 PROCESS

##### 4.4.2.1 EXCHANGE OF CONFIDENTIAL INFORMATION

In connection with the solving of specific tasks and the provision of services, the parties involved may have to exchange confidential information.

Confidential information includes information of any kind and in any form, which is not intended for free public access, including e.g. prices and rates, source codes, data, drawings, specifications, manuals, instructions, etc.

Confidential information received shall be kept, protected and handled properly with at least the same care, as the receiving party applies to his own business secrets.

The parties and their staff, sub-suppliers and consultants shall observe absolute professional secrecy as regards any confidential information received. This does not, however, apply to own internal use for the purpose.

Each party must limit the distribution of confidential information received to those staff members who actually need the information in question.

The parties are not allowed to pass on to any third party any confidential information received from the other party. This does not, however, apply to the passing on of information to the independent verifier, who is approved by the party giving the information. Approval of such verifiers cannot be refused without stating a material reason.

The parties are not allowed to use confidential information received from the other party for any other purpose than for own internal use for the original purpose, apart from any use to which the other party has granted permission.

Each party shall be responsible for any misuse or unauthorised distribution of information on the part of the party's employees, consultants or other attached persons who gain access to any confidential information received.

#### 4.4.3 MAINTENANCE OF A PUBLICLY ACCESSIBLE LIST OF VALID EPDS

An EPD will be published on the website of EPD Danmark throughout the validity of the EPD (5 years), or until the owner asks for revocation. EPD Danmark reserves the right to withdraw an EPD if the General Programme Instructions are violated or the owner fails to pay the annual fee.

#### 4.4.4 SPECIFIC LCA CALCULATION RULES AND DOCUMENTATION NEEDS

- Green electricity certificates, e.g. RECS certificates, are checked for credibility according to the verification rules and accepted in the LCA calculation.
- EPD Danmark has no prescription of databases or data for specified regions. However, the data quality must always be ensured.
- The manufacturer is allowed to group the material constituents making up the product in the EPD, if specific recipes or ingredients is considered as sensitive information.

## 5 PROCEDURES ACCORDING TO EN15804+A2:2019

### 5.1 PCR

As described for procedure according to EN 15804+A1:2013, in section 4.1, except the following notes.

#### 5.1.1 GENERAL

A PCR document defines the specific technical conditions, requirements and calculation rules which are to be applied when preparing an Environmental Product Declaration for a product.

EPD Danmark includes two types of PCR documents, following the current EN15805, thus the core PCR is

- A. **EN 15804 + A2:2019** - "Sustainability of construction works - Environmental product declarations - Core rules for the product category of construction products"
- B. Complementary PCR documents for product categories (cPCR)

### 5.2 EPD

#### 5.2.1 GENERAL

ISO 14025 describes the general procedure for development of Type III Environmental Product Declarations and the requirements as regards their contents. In addition, all Environmental Product Declarations published by EPD Danmark shall comply with the provisions of EN 15804, which further specify the requirements for calculation, contents and format for the product category of construction products.

#### 5.2.2 DECLARATION TYPES

As described for procedure according to EN 15804+A1:2013, in section 4.2.2.

#### 5.2.3 EPD SCOPES

According to EN 15804+A2:2019, the LCA based information must declare the modules A1-A3, modules C1-C4 and module D, see Figure 6.

This requirement can only be exempted, omitting declaration of modules C1-C4 and D, if the product declared fulfils all following three conditions:

- The product or material is physically integrated with other products during installations so they cannot be physically separated from them at end of life, and
- The product or material is no longer identifiable at end of life as a result of a physical or chemical transformations process, and
- The product or material does not contain biogenic carbon

An EPD not declaring modules C1-C4 and D, must provide justification of the omission and shall provide information on where to find scenarios for the end of life modules.

The scopes are stated below with the relevant information modules according to EN 15804+A2:2019, see also Figure 6.

- **Cradle-to-gate with modules C1-C4 and D**
  - A1, A2, A3 (Product)
  - C1, C2, C3, C4 (End of life)
  - D (Reuse and recycling potential)
- **Cradle-to-gate with options, modules C1-C4 and D**
  - A1, A2, A3 (Product)
  - C1, C2, C3, C4 (End of life)
  - D (Reuse and recycling potential)

In addition, one or more optional modules must be declared

- **Cradle-to-grave and module D**

A1, A2, A3	(Product)
A4, A5	(Construction)
B1, B2, B3, B4, B5, B6, B7	(Use)
C1, C2, C3, C4	(End of life)
D	(Reuse and recycling potential)

In the case of exempted omission of modules C1-C4 and D, the following scopes may be applied

- **Cradle-to-gate**

A1, A2, A3	(Product)
------------	-----------

- **Cradle-to-gate with options**

A1, A2, A3	(Product)
------------	-----------

In addition, one or more optional modules must be declared

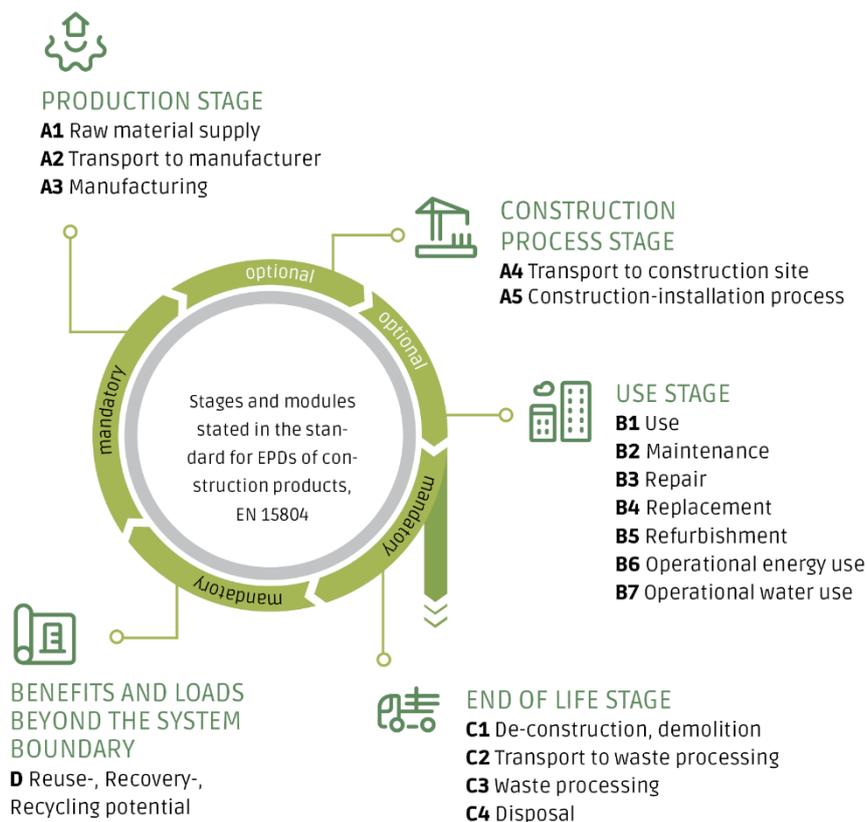


Figure 6. Life Cycle information modules, based on EN15804:2012+A2:2019

#### 5.2.4 EPD DEVELOPMENT PROCESS

As described for procedure according to EN 15804+A1:2013, in section 4.2.4.

#### 5.2.5 VALIDITY OF A REGISTERED EPD

As described for procedure according to EN 15804+A1:2013, in section 4.2.5.

#### 5.2.6 UPDATING AN EPD

As described for procedure according to EN 15804+A1:2013, in section 4.2.6.

#### 5.2.7 OWNERSHIP AND USE

As described for procedure according to EN 15804+A1:2013, in section 4.2.7.

#### 5.2.8 LANGUAGE

As described for procedure according to EN 15804+A1:2013, in section 4.2.8.

#### 5.2.9 EPDS FROM OTHER EPD PROGRAMMES

As described for procedure according to EN 15804+A1:2013, in section 4.2.9.

### 5.3 VERIFICATION

As described for procedure according to EN 15804+A1:2013, in section 4.3.

#### 5.3.1 VERIFICATION PROCESS

As described for procedure according to EN 15804+A1:2013, in section 4.3.1.

#### 5.3.2 VALIDITY

As described for procedure according to EN 15804+A1:2013, in section 4.3.2.

#### 5.3.3 APPROVED VERIFIERS

As described for procedure according to EN 15804+A1:2013, in section 4.3.3.

#### 5.3.4 RESTRICTIONS, EXPIRATION AND NULLIFICATION OF DECLARATIONS

As described for procedure according to EN 15804+A1:2013, in section 4.3.4.

#### 5.3.5 DATA CONFIDENTIALITY

As described for procedure according to EN 15804+A1:2013, in section 4.3.5.

### 5.4 DATA AND DOCUMENTATION MANAGEMENT

As described for procedure according to EN 15804+A1:2013, in section 4.4.

#### 5.4.1 BASIS

As described for procedure according to EN 15804+A1:2013, in section 4.4.1.

#### 5.4.2 PROCESS

As described for procedure according to EN 15804+A1:2013, in section 4.4.2.

#### 5.4.3 MAINTENANCE OF A PUBLICLY ACCESSIBLE LIST OF VALID EPDS

As described for procedure according to EN 15804+A1:2013, in section 4.4.3.

#### 5.4.4 SPECIFIC LCA CALCULATION RULES AND DOCUMENTATION NEEDS

As described for procedure according to EN 15804+A1:2013, in section 4.4.4.

## 6 HANDLING COMPLAINTS

Complaints about the contents of a published EPD shall be filed with the programme operator and must be substantiated in writing and supported by documentation. The programme operator is then responsible for obtaining a common statement from the LCA practitioner and the verifier. Any conflicts or disagreements shall be tried to be settled out of court between the parties involved. Disputes shall be settled according to the Rules of Arbitration and Danish legislation.

## 7 DEFINITIONS, TERMS AND ABBREVIATIONS

The following definitions, terms and abbreviations apply in these programme instructions and in project reports, EPDs and other communication under EPD Danmark:

### ALLOCATION

Partitioning of flows (input and output) to and from a process or a product system between the product system under study and one or more other product systems.

### AVERAGE DATA

Data representative of a product, product group or construction service, provided by one or more suppliers.

### B2B

Business-to-business. Communication between organisations and/or professional actors.

### B2C

Business-to-consumer. Communication between an organisation or professional actor and a consumer.

### CHARACTERISATION FACTOR

Factor, calculated by means of a characterisation model (e.g. CML), which may be used to convert the classified analysis results into the common unit (e.g. kg CFC-11 equivalents) of the category indicator (e.g. ability to deplete stratospheric ozone).

### cPCR

Complementary Product Category Rules. Product group specific or horizontal PCR, which provide additional compliant and non-contradictory requirements to EN15804. cPCRs are meant to be used together with EN15804.

In EPD Danmark the PCR basis of a specific product category consists of two parts. "Part 1" is the European standard EN 15804, which defines the basic PCR rules which are common to all construction products. "Part 2" is the complementary PCR document (cPCR), which defines the PCR rules applying to the specific product category, and which thereby *supplements (are complementary)* the provisions in EN 15804.

### CONSTRUCTION ELEMENT

Part of a construction containing a defined combination of products.

### CONSTRUCTION PRODUCT

Item manufactured or processed for incorporation in constructions works.

### CONSTRUCTION SERVICE

Activity that supports the construction process or subsequent maintenance.

### DECLARED UNIT

Quantity of a product system for use as a reference unit for a LCA/EPD. Typically used for LCA covering the life cycle phases in cradle-to-gate.

### ELEMENTARY FLOW

Energy or material that comes directly from nature (ecosphere) to the system under study (technosphere) or that goes directly from the system to nature.

### EN 15804

European standard published by CEN, on a mandate from the European Commission. The standard forms the technical basis of the preparation of Type III Environmental Product Declarations for construction products (EPD).

#### ENVIRONMENTAL IMPACT CATEGORY

Category representing environmental issues of concern in which analysis results may be classified – e.g. “stratospheric ozone layer depletion”.

#### ENVIRONMENTAL PERFORMANCE

Performance related to environmental impacts and environmental aspects.

#### EPD

Abbreviation for a Type III Environmental Product Declaration. A Type III Environmental Product Declaration for a construction product is prepared on the basis of the European standard EN 15804 and/or ISO 14025.

#### FUNCTIONAL EQUIVALENCE

Quantified functional requirements and/or technical requirements for a building or an assembled system (part of works) for use as a basis for comparison.

#### FUNCTIONAL UNIT

The quantified performance of a product system for use as a reference unit, typically for LCA covering life cycle phases describing the use of the product.

#### LCA

Life Cycle Assessment. The Life Cycle Assessment is the backbone of an EPD and is performed on the basis of the international standards ISO 14040 and ISO 14044. A Life Cycle Assessment compiles and evaluates all inputs and outputs and potential environmental impacts of a product throughout its life cycle.

#### LCI

Life Cycle Inventory analysis. Phase of the life cycle assessment involving the compilation and quantification of inputs and outputs of elementary flows.

#### LCIA

Life Cycle Impact Assessment. Phase of the life cycle assessment, aimed at understanding and evaluating the magnitude and significance of the potential environmental impacts of a product system.

#### LIFE CYCLE

Consecutive and interlinked stages of a product system, from raw material acquisition or generation from natural resources to final disposal.

#### MANAGEMENT SYSTEM (regarding EPD tools)

A company specific set of procedures and processes (e.g. a written document (1page) on who does what and how etc.) in order to assure the right quality and handling of data leading to a proper use of the EPD tool and the internal verification of the resulting EPDs according to the requirements described in these Programme instructions.

#### PCR

Product Category Rules. A set of specific rules, requirements and instructions for the development of an EPD for a specific product category.

#### PCR REVIEW

Process whereby a third party panel verifies the specific Product Category Rules (PCR) prepared for a product category.

#### PRODUCT CATEGORY

Group of products which can fulfil equivalent functions.

#### PROGRAMME OPERATOR

Organisation which develops and conducts a Type III Environmental Product Declaration Programme.

#### PROJECT REPORT

Report containing all relevant data from the life cycle assessment. The project report is considered to be a LCA performed on the basis of the relevant PCR document(s). The project report forms the basis of the verification of the LCA and is not published.

#### RSL

Reference Service Life – the expected service life of a product under a set of given conditions for the use of the product.

#### SCENARIO

Collection of assumptions and information concerning an expected sequence of possible future events.

#### THIRD PARTY

Person or body that is recognised as being independent of the parties involved, as concerns the issues in question. The parties involved are usually the LCA developer and the customer/manufacturer.

#### TYPE III ENVIRONMENTAL PRODUCT DECLARATION

In everyday language "EPD" or "environmental product declaration". A Type III Environmental Product Declaration provides quantified environmental information on a product's life cycle to enable comparisons between products fulfilling the same function. Such declarations are based on independently verified LCA data and are developed by means of predetermined parameters. The predetermined parameters are defined in the product's PCR and are based on the ISO 14040 series of standards (ISO 14040 and ISO 14044).

#### TYPE III ENVIRONMENTAL PRODUCT DECLARATION PROGRAMME

Programme for the development and application of Type III Environmental Product Declarations, based on a set of general programme instructions.

#### VERIFICATION

Confirmation that specified requirements have been fulfilled. The verification of the LCA data as well as the EPD itself shall ensure the reliability of the work performed. The verification shall be performed by an independent party and may be done either internally as concerns the LCA developer or by an external third party.

#### VERIFIER

Person (or body) that carries out verification.

This page is intentionally left blank.

## APPENDIX A - LIFE CYCLE ASSESSMENT (LCA) METHODOLOGY

### 1 ACCORDING TO EN15804+A1:2013

#### 1.1 LCA METHODOLOGY

The LCA consultant (internal or external to a manufacturer) must ensure to perform a study according to international standards (e.g. regarding data collection):

- EN ISO 14040:2008 – “Environmental Management - Life Cycle Assessment - Principles And Framework”
- EN ISO 14044:2008 – “Environmental Management - Life Cycle Assessment - Requirements And Guidelines”

In addition to the mentioned international standards, also the following shall be used (e.g. regarding LCA calculations):

- EN 15804
- CEN/TR16970:2016

The requirements in the General Programme Instructions of EPD Danmark along with the requirements in the relevant cPCR must be followed in addition to the standards.

The methodology must consist and cover the following step, which are also to be reported in the project-/LCA report:

- Determination of objectives and scope
- Collection and processing of data
- Assessment of the environmental data
- Interpretation of the results

#### 1.2 CONTENT OF THE LCA REPORT

The project-/LCA report for developing an EPD must follow the structure of the template prepared by EPD Danmark, which can be obtained through the Secretariat.

### 2 ACCORDING TO EN15804+A2:2019

#### 2.1 LCA METHODOLOGY

As described for EN15804+A1:2013 in section 1.

In addition to the mentioned standards, guidelines and requirements, the following shall be used:

- ILCD manuals

#### 2.2 CONTENT OF THE LCA REPORT

The project-/LCA report for developing an EPD must follow the structure of the template prepared by EPD Danmark, which can be obtained through the Secretariat.

This page is intentionally left blank.

## APPENDIX B - ENVIRONMENTAL PRODUCT DECLARATION (EPD) METHODOLOGY

### 1 ACCORDING TO EN15804+A1:2013 AND EN15804+A2:2019

#### 1.1 EPD CONTENT

The main purpose of the EPD is to showcase the environmental properties of a declared service or product in a comprehensive way. The EPD must follow the templates developed by EPD Danmark and can be obtained through the Secretariat.

The overall content shall be:

- General information related to the EPD programme
- Information on manufacturer and verification
- Product or service information
- LCA background of the EPD
- LCA results (environmental performance)
- Additional information
- References

This page is intentionally left blank.

## APPENDIX C - THIRD PARTY VERIFIERS

### 1 REQUIREMENTS FOR THE INDEPENDENCE AND COMPETENCY OF VERIFIERS

Verifiers must be a third party from the organization enquiring the EPD (EPD owner) which is to be verified, the developer of the EPD (LCA consultant, can either be internal or external from the EPD owner) and other parties involved in the development of the EPD (e.g. production facility, supplier, etc.).

Verifiers associated to EPD Danmark, are expected to keep updated within the field of LCA and EPD through their professional work. The Secretariat of EPD Danmark will arrange an annual meeting in the verifier group, which enables a forum for methodological discussions. The continuation of the approval of the verifiers is revised every three years.

The competence requirements of approved verifiers include:

- An education in engineering or other relevant scientific education
- Thorough knowledge of product-related environmental aspects in the building industry, substantiated by at least 4 years' professional experience in environment-related work in the building industry or other related area\*
- Process and product knowledge from the lines of business covered by EPD Danmark
- LCA expertise, substantiated by at least 3 completed life cycle assessments (LCA)
- Proof of knowledge within LCA software (e.g. GaBi, Umberto, SimaPro, OpenLCA, etc.)
- Knowledge of relevant standards for LCA (ISO 14040, ISO 14044)
- Knowledge of relevant standards for environmental labels and declarations (ISO 14025, EN 15804, ISO 21930)
- Knowledge of EPD Danmark and its rules and procedures

*\* This may be substantiated - for example – by having worked with development of LCA or critical review of LCA, having been involved in the international LCA/EPD standardization work in CEN and/or ISO. The verifier must furthermore be part of the LCA/EPD 'society', e.g. through memberships of relevant organisations or committees (e.g. SETAC, LCA fora, national networks, LinkedIn groups, etc.).*

#### 1.1 INTERNAL VERIFICATION OF EPDs DEVELOPED THROUGH A VERIFIED EPD TOOL

Verification of EPDs developed through an EPD tool have different review processes and requirements. The requirements for independence of the verifier, verifying EPDs from the tool are thus allowing for internal 'verification' as long as the tool is verified by a third party verifier, and a third party verified industry (product group) or specific product EPD exists (developed with the tool and manually verified). See more on additional requirements and review processes for EPD tools in Appendix D.

## 2 TASK OF VERIFIERS

The approved external verifiers affiliated to EPD Denmark are expected to carry out the task of reviewing the EPD(s) for publication, the LCA-/project report, and additional documentation which supports the report.

The verification must follow a verification checklist which is developed by EPD Denmark, based on the guidelines set out by ECO Platform.

The verification must ensure that the report and EPD complies with:

- A valid and relevant PCR.
- International standard for LCA, ISO 14040 and ISO 14044.
- The General Programme Instructions of EPD Denmark.

Additionally, it must confirm that:

- EPD data and LCA report data are the same.
- The data used is reliable, reproducible, consistent, representative and have a high coverage, accuracy and completeness.
- LCA data have a satisfactory level of accuracy, quality and credibility.
- Additional environmental information has a satisfactory level of accuracy and quality.
- Basic information has a satisfactory level of accuracy and quality.
- Missing data are treated in a satisfactory level and explained how treated.

The verifier is to report the verification to EPD Denmark through the relevant verification checklist. They may note deviations in the LCA report, or EPD, to the checklist and the EPD owner (or their LCA consultant if such is used) may have opportunity to correct matters. Once the EPD can be accepted/verified, all final documents, including the verification checklist describing the iterations between verifier and consultant, must be sent to EPD Denmark for final registration. If the EPD cannot be verified within the agreed term, this must be announced to EPD Denmark, see more in section 4.3.1.4 in the General Programme Instructions.

Additional requirements and review processes apply for LCA- and EPD tools. These are described in Appendix D.

## APPENDIX D - LCA AND EPD TOOLS, REQUIREMENTS TO VERIFICATION, APPROVAL AND USE

This appendix specifies requirements for developing (automated) tool solutions for the development of EPDs, including the processes, knowledge, routines and documentation required from all involved stakeholders (EPD owner, LCA consultant, verifier, EPD Danmark etc., see stakeholders listed in section 3 of this appendix).

Tool solutions can be used for and are introduced in the EPD Danmark programme in order to open up for optimization and automation of development of EPDs. Special requirements and processes for tools apply, compared to the traditional process of developing and verifying EPDs.

Cost and fees are described in the General Programme Instructions, section 3.6, and at [www.epddanmark.dk](http://www.epddanmark.dk).

### 1 GENERAL

To comply with tendencies on automation and optimization in development of EPDs, EPD Danmark has opened up for acceptance of tool-solutions to develop EPDs. Tools should be able to optimize the handling of data, LCA modelling and ability to produce EPDs for similar product types and with project variations. The guidelines for tool development have been based on discussions currently performed in ECO Platform.

EPDs which are developed through a tool solution must have the same quality as EPDs created through the traditional process.

### 2 TYPES OF TOOLS

EPD Danmark currently accepts the following options for creating an EPD:

- No tool (ordinary EPD)
- LCA tool
- EPD tool

'No tool' represents the traditional way of developing and verifying an EPD, as described in the General Programme Instructions, section 4.2.4.1.

### 3 SPECIFICATION OF TOOLS AND WORKING PROCESSES

The different tool solutions require the same basic working processes, whereas the EPD tool is a further development of the LCA tool.

Stakeholders and their roles in tools:

- Tool owner: company enquiring the development of an automated tool solution (may be the same as the 'EPD owner', but for industry associations the tool and EPD owners/tool operators are not necessarily the same)
- EPD owner: company/manufacturer of the product or service declared, owning the EPD developed through an automated tool solution
- LCA consultant: External or internal to the tool and/or EPD owner, LCA expert
- EPD Danmark: Registering and publishing EPDs
- Verifier: Approved by EPD Danmark. Third party verifier, verifying the tool/project report and/or the EPD
- Technical Committee: Advice/guidance regarding approving tools and external verifiers in cooperation with the programme operator
- Data processor: Develops the EPDs, through a locked front-end display, by gathering foreground data for the production (employed by the EPD owner)
- Reviewer: Independent external or independent internal reviewer with specific tasks regarding the tools (employed by the EPD owner)

**Table 1. Stakeholder involvement, LCA restrictions and outcome**

	Stakeholders involved	LCA restrictions	Outcome
<b>No tool</b>	EPD owner LCA consultant EPD Danmark Verifier		
<b>LCA tool</b>	Tool owner EPD owner LCA consultant EPD Danmark Verifier Technical Committee	Fixed and verified LCA data and EPD-template	EPD with pre-qualified background data and independent verification of each EPD
<b>EPD tool</b>	Tool owner EPD owner LCA consultant EPD Danmark Verifier Technical Committee Data processor Reviewer	Fixed and verified LCA data and EPD-template	EPD generator with third party review of the process

### 3.1 LCA TOOL

An LCA tool optimizes the process for developing an EPD. The tool is to be used by an LCA expert and does not eliminate the need for verification of the single EPDs.

The LCA tool is based on an LCA model which is parameterized making the user of the tool able to modify predefined input data in order to get results for a specific EPD. The model must not be changed by the user.

An LCA tool can be used for standardizing the creation of the underlying LCA for an industry or company who wishes to publish a number of EPDs based on the same raw materials. The creation of each EPD should thus be faster and cheaper, as the background data have already been assessed and verified in the LCA tool.

The development of the EPDs must be performed by an LCA expert, as an LCA report 'light' has to be developed for each EPD, describing the input data quantities (foreground data), assessment of environmental data, interpretation of LCA results etc.

The LCA tool must be described in a report for verification, describing objectives and scope, background data, data quality and representativeness etc.

The project report for the tool verification shall comply with the rules of EPD Danmark. It shall include a description of what can be varied as well as a sensitivity analysis with respect to the parameters that can be varied.

The LCA tool, is to be verified by an approved external verifier, affiliated with EPD Danmark. A verification of an LCA tool is valid for 3 years, after which the tool has to be re-assessed (and verified) to ensure data quality and representativeness.

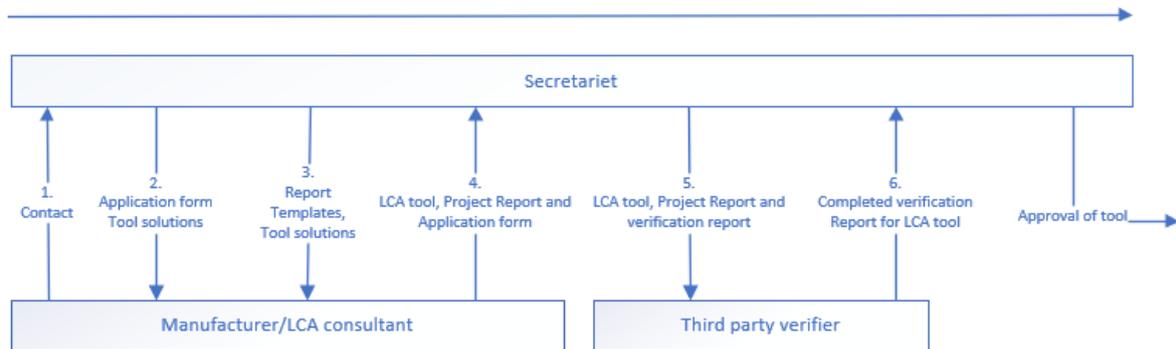


Figure 7. Contact flows for development and verification of LCA tool

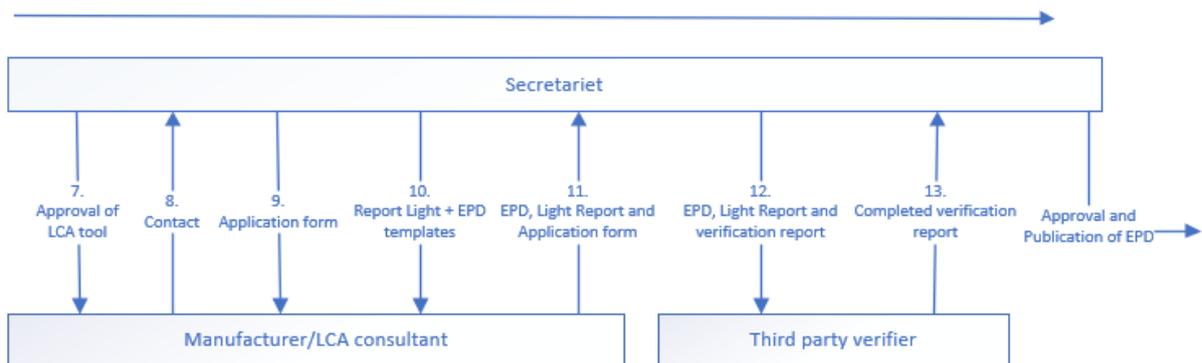


Figure 8. Contact flows for development and verification of EPDs using an LCA tool

### 3.1.1 TASKS OF THE LCA TOOL USER

The user of the LCA tool (an LCA expert) must keep a logbook, registering all EPDs developed with a preset content of information as stated by EPD Danmark, described in section 4.4 of this appendix.

The owner of the LCA tool shall be responsible for archiving the version of the tool for the validity period of the EPDs created with this version.

The ownership of the tool (legal entity) shall be documented in the description of the tool.

An EPD developed through an LCA tool must be verified as an ordinary EPD, using the verification checklist 2 and 3.

## 3.2 EPD TOOL

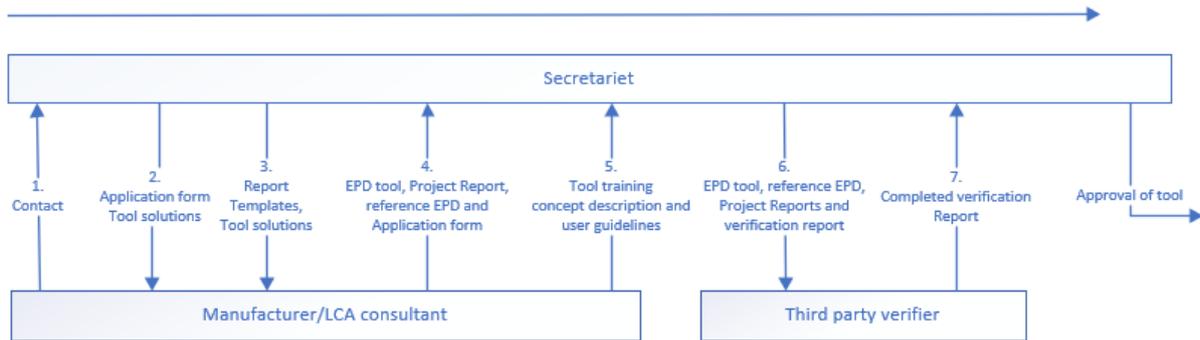
The EPD tool is an extension of the afore described LCA tool. An EPD tool can be used for standardizing the creation of larger numbers of EPDs within the same product category.

The tool is to be developed with a locked front-end interface, enabling non-LCA experts to develop EPDs once they're approved through introductory training (see training requirements in section 4.1.2.1 in this appendix).

The EPD tool must be developed by an LCA expert, and is to be verified by an approved verifier, affiliated to EPD Danmark. The EPD tool must be described in a report for verification, describing objectives and scope, background data, data quality and representativeness etc. The tool cannot be changed by the user.

The project report for the tool verification shall comply with the rules of EPD Danmark. It shall include a description of what can be varied as well as a sensitivity analysis with respect to the parameters that can be varied.

The EPD tool, is to be verified by an approved external verifier, affiliated with EPD Danmark. A verification of an EPD tool is valid for 3 years, after which the tool has to be re-assessed (and verified) to ensure data quality and representativeness.



**Figure 9. Contact flows for development and verification of EPD tool**

Once the tool is verified, the EPD owner (user of the tool, may be the same as the tool owner) must appoint employees who undertakes the introductory course, allowing them to operate the tool. At least two people from the EPD owner should be appointed, as two roles are needed: a data processor and an internal, independent reviewer, cf. section 3.2.1 in this appendix.

The tool user (this may be the tool owner, or a company using the tool developed by e.g. their industry association) of the EPD tool shall be responsible for archiving the used version of the tool for the validity period of the EPD created with this version.

The ownership of the EPD tool (legal entity) shall be documented in the description of the tool.

### 3.2.1 TASK OF THE MANUFACTURER AND APPOINTED EMPLOYEES

The user of the EPD tool (EPD owner) must keep a logbook, registering all EPDs developed (both product and project specific) with a pre-set minimum content of information as stated by EPD Danmark, described in section 4.4 of this appendix. As part of this, a suitable management system shall be implemented including a stepwise description on how the tool is actually used.

Training of the EPD owner’s appointed employees is personal and linked to the tool. Thus, if an employee changes company, the EPD owner must ensure training of a new replacement. An employee may use their obtained training certificate upon change of employer, if the used tool and industry/sector is the same, and their training is still valid (3 years, following the tool updates). Logbook, management system etc. stays with the EPD owner, thus a ‘new’ system must be established at the new employer/manufacturer.

An EPD owner (company) must have at least 2 people who are trained in using the EPD tool, at any given time to develop EPDs.

Appointed employees must be updated on the tool content at least every third year (upon mandatory tool update), or whenever a change is performed to the tool needing re-verification.



**Figure 10. Contact flows for development of EPDs using an EPD tool**

#### 3.2.1.1 DATA PROCESSOR

The data processor develops the EPDs, through a locked front-end display, by gathering foreground data (Bill of Material – BoM) for the production and printing the EPD. The data processor must sign off the EPDs (project EPDs based on published product EPDs and product EPDs) in the logbook.

The data processor (employed by the EPD owner) must keep a logbook, registering all EPDs developed (both product and project specific EPDs) with a pre-set content of minimum information as stated by EPD Denmark, described in section 4.4 of this appendix.

The working process of the data processor must be supported by implementation and description of a management system.

#### 3.2.1.2 REVIEWER

The reviewer must review the logbook and data assessment (BoM) performed by the data processor. The reviewer must sign off the content of the EPDs (project EPDs based on published product EPDs and product EPDs), and approve information registered, in the logbook. The reviewer must also sign product EPDs developed through the tool.

The reviewer must fill in and sign a verification checklist (checklist 5) and send this to EPD Denmark together with a copy of the valid training certificates (covering both the reviewer and the data processor), a copy/description of the management system and a filled in registration formulae, whenever a product EPD is to be published by EPD Denmark.

EPD Denmark reserves the right to initiate desktop sample checks of EPDs if this is needed.

### 3.2.2 PREREQUISITES FOR EPDS DEVELOPED WITH EPD TOOL

EPDs developed through an EPD tool can be either a product or a project EPD, as described in the General Programme Instructions, section 4.2.2.

When developing a tool solution, test EPDs must be developed and individually verified by an approved external verifier, affiliated to EPD Denmark, according to verification checklist 1. Test EPDs supports the verification of the tool (no publishing, as these are only used for verification purposes). If the tool is developed by an industry association, these test EPDs can be developed as industry EPDs for publishing and occurs as traditional/regular third party verified EPDs.

The first product EPD for each product category (developed with the tool) has to be sent to (and published by) EPD Denmark, along with a filled-in and signed checklist (checklist 5), a description of the management system, a filled-in registration formulae and the training certificates of the reviewer and the data processor.

#### 3.2.2.1 INDUSTRY ASSOCIATION EPD TOOL AND EPDS

Industry associations (the tool owner) who've acquired an EPD tool for their members (EPD owners), must develop test EPDs (which can be used as industry EPDs for publication) for every product category wished to be covered by the tool as a part of the tool development. These test EPDs (possibly representable industry EPDs) must be verified as ordinary EPDs according to the verification checklist 1.

If the industry association wishes to develop EPDs for additional product categories after approval of the tool, they must enquire an LCA expert to develop the EPDs (which is to prove that the tool can be used successfully for the 'new' product category). These additional EPDs are to be verified as ordinary EPDs, according to the verification checklist 1. If changes are needed in the background setup of the EPD tool to accommodate the new product category, a re-verification of the tool is required.

Once a product category is represented in the tool solution, through verified test EPDs (possibly representable industry EPDs, which must be published by EPD Danmark if they are to be used publicly), manufacturers are allowed to develop product EPDs with the tool for the given product category. Each manufacturer has to develop a product EPD, representing their own specific production line, which must be registered with (along with the filled-in checklist, registration, training certificates and description of the management system) and published through EPD Danmark, before being able to develop project specific EPDs (by this, the manufacturer will get a reference number for their project EPDs). The validity of a project EPD follows the validity of the reference product EPD.

It must be ensured, either by the tool users and/or owner, that all project EPDs are made accessible to EPD Danmark or the auditing body or the third party verifier, both on behalf of EPD Danmark (see requirements for operating an EPD tool in section 4.3 of this appendix) upon request. If done by an auditing body, necessary involvement of LCA competence and tool knowledge shall be ensured (needs approval by EPD Danmark)

#### 3.2.2.2 MANUFACTURER EPD TOOL AND PRODUCT EPDS

A manufacturer (in this setup both tool and EPD owner) must develop test EPDs for every product category wished to be covered by the tool as a part of the tool development. These test EPDs must be verified as ordinary EPDs according to the verification checklist 1, but are only for verification of the tool, and thus not for public use.

If the manufacturer wishes to develop EPDs for additional product categories after approval of the tool, they must enquire an LCA expert to develop the test EPDs (which is to prove that the tool can be used successfully for the 'new' product category). These additional EPDs are to be verified as ordinary EPDs, according to the verification checklist 1. If changes are needed in the background setup of the EPD tool to accommodate the new product category, a re-verification is required.

Once a product category is represented in the tool solution, through verified test EPDs, the manufacturers appointed employees are allowed to develop product EPDs with the tool for the given product category, which must be registered with (along with the filled-in checklist, registration, training certificates and description of the management system) and published through EPD Danmark, before being able to develop project specific EPDs (by this, the manufacturer will get a reference number for their project EPDs). The validity of a project EPD follows the validity of the reference product EPD.

It must be ensured, by the tool owner, that all project EPDs are made accessible to EPD Danmark or the auditing body or the third party verifier, both on behalf of EPD Danmark (see requirements for operating an EPD tool in section 4.3 of this appendix) upon request. If done by an auditing body, necessary involvement of LCA competence and tool knowledge shall be ensured (needs approval by EPD Danmark).

## 4 REQUIREMENTS FOR APPROVAL OF TOOLS

### 4.1 REQUIREMENTS FOR DEVELOPING A TOOL

EPD Danmark requires tool owners to ensure that the competence of the personnel using the tool is adequate.

#### 4.1.1 LCA TOOL

LCA tools are only to be used by LCA experts who can assess the data, as an LCA report 'light' has to be developed for each EPD, describing the input data quantities (foreground data), assessment of environmental data, interpretation of LCA results etc.

The LCA expert developing EPDs through an LCA tool may be the developer of the LCA tool as well.

#### 4.1.2 EPD TOOL

To ensure adequate competence of the personnel using the EPD tool (see section 3.2.1 in this appendix), the EPD tool owner must:

- Organize and run training on how to handle functionalities and aspects in the tool in cooperation with EPD Denmark. These courses are to qualify company users to use the tool and have a basic knowledge on handling LCA data (the tool owner should ensure that training sessions contain the correct level of knowledge of the tool – the LCA expert should thus be included in the training).
- Develop user guidelines on how to handle functionalities and aspects in the tool
- Describe the division of responsibility between appointed employees to use the tool, in the company (if the EPD tool owner is an industry association, this bullet is the responsibility of the EPD owner/tool user).

The user guideline and a description of the process (management system) of internal verification performed by the reviewer, together with the competence requirements of the data processor and reviewer shall be verified by a third-party verifier.

EPD Denmark must receive and will maintain records concerning the training, competency and experience of users of the tool. The user guidelines developed must be sent to EPD Denmark.

##### 4.1.2.1 CONTENT OF INTRODUCTORY TOOL TRAINING

The introductory training for EPD tools must contain the following basics:

- Introductory LCA
  - enabling an understanding of importance of data accuracy, representativeness and quality, understanding of environmental impacts etc.
- Tool operation
- Introduction to EPD Denmark and obligations hereto.

The training is to be organized by the tool owner in cooperation with EPD Denmark.

The training will result in a personal training certificate, enabling access to the EPD tool. A manufacturer will/may thus not have access to the EPD tool front-end before a training certificate is obtained for both a data processor and a reviewer, cf. section 3.2.1 in this appendix.

## 4.2 VERIFICATION OF A TOOL AND THE EPDs OBTAINED THROUGH A TOOL SOLUTION

All tool solutions are to be verified by an external verifier, approved by EPD Denmark. Additionally, based on advice from the Technical Committee of EPD Denmark the tool has to be approved by EPD Denmark.

The approval will be based on the report, describing the background data, quality assessment, parametrization and tool setup.

The verification of project reports and EPDs must follow the general procedures, which are described in ISO 14025 and ECO Platform, and performed in practice based on the relevant checklist of EPD Denmark's verification check lists:

- Checklist 1: Conventional EPD + report
- Checklist 2: LCA tool + report
- Checklist 3: LCA tool EPD + report (light)
- Checklist 4: EPD tool + report + test EPDs
- Checklist 5: Internal verification of data collection and use of tool at user

#### 4.2.1 LCA TOOL

The LCA tool, is to be verified according to checklist 2 and the EPDs according to checklist 3, both by an approved external verifier, affiliated with EPD Denmark. A verification of an LCA tool is valid for 3 years, after which the tool has to be re-assessed (and verified) to ensure data quality and representativeness.

#### 4.2.2 EPD TOOL

The EPD tool, is to be verified according to checklist 4 and the test EPD's also according to checklist 1 and 4, both by an approved external verifier, affiliated with EPD Denmark. A verification of an EPD tool is valid for 3 years, after which the tool has to be re-assessed (and verified) to ensure data quality and representativeness.

After verification of the tool, the EPDs made by the tool must be verified according to checklist 5 by the appointed company reviewer.

The company using the EPD tool is solely responsible for the quality of the EPD created.

### 4.3 REQUIREMENTS FOR OPERATION OF A TOOL

The requirements for operation vary whether it is an LCA- or EPD tool.

EPD Denmark reserves the right to perform or initiate desktop sample checks on the EPDs developed by a company/EPD owner. These sample checks are based on the logbooks and developed EPDs, why the tool developer must ensure a solution on how all developed EPDs (including non-published project EPDs) are accessible for EPD Denmark or the auditing body or the third party verifier, both on behalf of EPD Denmark, upon request. If done by an auditing body, necessary involvement of LCA competence and tool knowledge shall be ensured (needs approval by EPD Denmark).

Annual requirements for

- LCA tool:
  - Review of logbook by EPD Denmark or either an approved verifier or auditing body, both on behalf of EPD Denmark, according to verification checklist 2 and 3
- EPD tool
  - Review of logbook by EPD Denmark, approved verifier or auditing body (approved by EPD Denmark), according to verification checklist for EPD tools (checklist 4)
  - Sample check of project EPDs (product EPDs are published, and have hence been checked through the publication process, along with receiving the logbook, training certificates and description of the management system)

When operating a tool, whether LCA- or EPD tool, a logbook must be held, cf. section 4.4 of this appendix. The logbook is to be sent to EPD Denmark once a year, in connection with the annual review.

EPD Denmark reserves the right to perform or initiate additional external reviews at any time and without a specified reason in order to obtain insight on the operation of LCA- or EPD tools. Such reviews may result in comments that requires actions to be performed in order to run the tools.

### 4.4 LOGBOOK CONTENT

#### 4.4.1 LCA TOOL

- The owner of the tool shall keep track of any changes, describe them and make them available to EPD Denmark and the verifier.
- The user of the tool, shall document developed EPDs and coherent light LCA reports

#### 4.4.2 EPD TOOL

The following should, as a minimum, be added to the logbook every time a new project EPD is created:

- A filled in and signed checklist (internal verification, checklist 5) shall be stored in the logbook for each project EPD together with the version (number) of the tool used, the unique number of the project EPD created ([*product EPD number*] – 1, 2, 3 or ... and the date. The signed and filled in checklist is also to be sent to EPD Danmark upon registration of product EPDs
- A reference to the management system used for EPD development at the company (which is also to be sent to EPD Danmark upon registration of product EPDs)
- Names and reference to training certificates of appointed employees (data processor and reviewer). The training certificates must also be sent to EPD Danmark upon registration of product EPDs.

## 5 INFORMATION ON EPDS DEVELOPED THROUGH TOOLS

EPDs developed through tool solutions must contain additional information to the information in the ordinary EPDs as listed in Appendix B to the General Programme Instructions, section 1.

EPDs developed through an LCA tool must contain the following additional information:

- Tool name and version used for the EPD
- Information on the verifiers of the tool and the final EPD (name and company), both must be mentioned and have signed.

Product EPDs developed through an EPD tool must contain the following additional information:

- Tool name and version used for the EPD
- Information on the verifier of the tool (name, company and signature)
- Information on the internal reviewer and data processor (name and company), both must be mentioned and the reviewer must have signed the product EPD for publishing sent to EPD Danmark. Both must have signed the logbook.

Project EPDs developed through an EPD tool must contain the following additional information:

- Tool name and version used for the EPD
- Information on the verifier of the tool (name and company)
- Information on the internal reviewer and data collector (name and company). Both must have signed the logbook.
- Refer to the reference product EPD number, obtained by EPD Danmark upon publication of the product EPD
- Does not contain the signature of EPD Danmark representatives, but refers to the signed reference product EPD

Compliance shall be assured by using EPD templates of EPD Danmark. These are acquired upon request to the secretariat.

## 6 SCOPE AND VALIDITY OF TOOLS

All tool solutions registered with and approved through EPD Danmark are valid for 3 years, after which an update and re-assessment of data is required, prompting a re-verification of the tool.

If changes/or updates are found necessary for any of the tool solutions during the validity period (change in background data/processes, update of data due to time representativeness – limit of 10 years, etc.) a supplementary verification is required.

An LCA- or EPD tool can be checked annually for core LCA data validity, which can extend the validity of the tool to a period of five years. If an update is needed during this period (change in background data/processes, update of data due to time representativeness – limit of 10 years, etc.) a re-verification is required.