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INTRODUCTION

This document constitutes the General Programme Instructions of the Norwegian EPD Foundation/EPD-Global. This document and its appendices represent the main technical document of the Norwegian EPD Foundation/EPD-Global and form the basis of the overall administration and operation of a programme for type III environmental declarations according to ISO 14025.

These instructions are expected to be updated about every three years and/or when necessary in order to ensure the document is in accordance with the developments in standardisation, LCA methodology and market conditions.

Version of the General Programme Instructions:
2024.09.18: Version 4.0

References to this document should be written as follows:
The Norwegian EPD Foundation/EPD-Global, General Programme Instructions 2024. Version 4.0 dated 2024.09.18.

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Revision log 2024-09-18

- Update on the organizational structure of EPD-Global
- Aligning with principles of ISO 17029
- References to ECO Platform bylaws, rules, guidelines and position papers

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EPD for the best environmental decision

1 OBJECTIVES OF THE NORWEGIAN EPD FOUNDATION

The main objective of the Norwegian EPD Foundation/EPD-Global (hereafter referred to as *EPD-Global*) is to help and support organisations to communicate environmental performances for products and services in an impartial, competent, understandable and credible manner by offering verified and approved type III environmental declarations (hereafter referred to as *EPD*).

EPD-Global shall offer a complete EPD programme for any organisation in and outside of Norway in accordance to ISO 14025, ISO 14040/14044 and other relevant standards or methodology guides, including but not limited to:

- EN 15804 and/or ISO 21930 for construction products and construction services,
- ISO/TS 14027 for the development of Product Category Rules, and
- ISO/TS 14067 and ISO 14046 for the calculation of carbon footprint- and water footprint-related indicators.

EPD-Global shall contribute to the creation of standardized, verified, and life cycle-based environmental information, and promote automation and digitalisation.

EPD-Global shall promote cooperation and harmonisation with other environmental declaration programmes.

EPD-Global shall constantly evaluate and if required, make bilateral mutual recognitions with established programme operators as encouraged by ISO 14025.

EPD-Global shall – when accredited - work continuously with upholding, monitoring and improving with regard to requirements in the ISO 17029:2019 standard. Including the responsibilities as a legal entity, responsible for all its verification activities. Strict focus is set on impartiality, fairness, confidentiality and competence.

EPD-Global shall support and participate in ECO Platform¹ work and activities, with focus on international PCR harmonisation and standardisation.

The scope of the EPD-Global General Programme Instructions (hereafter referred to as *GPI*), includes any type of product or service from any organisation where there is a demand to communicate its life cycle- based environmental information, covering both business to business (B2B) and business to customer (B2C) communications. Each declaration owner must make sure that they are compliant with national laws or regulations in their territory.

EPD-Global can publish a declaration for a product or service for a single company or as the average product of companies in a specific sector and geographical area. Similar products from the same company may be included in the same EPD if certain requirements are met. EPDs for a specific project can be developed based on an already registered and published EPD from the manufacturer. See chapter 4.5 for further information on EPD types.

¹ ECO Platform is an International Non-Profit Association established by European EPD Programme Operators.
Website: <http://www.eco-platform.org>

2 PROGRAMME ORGANISATION AND ROLES

EPD-Global is structured according to the following activities:

- Administration of EPD-Global / Secretariat
- Technical committee
- Automation and digitalization
- EPD verification
- EPD approval and publication
- Advisory, PCR maintenance/development and Complaint handling

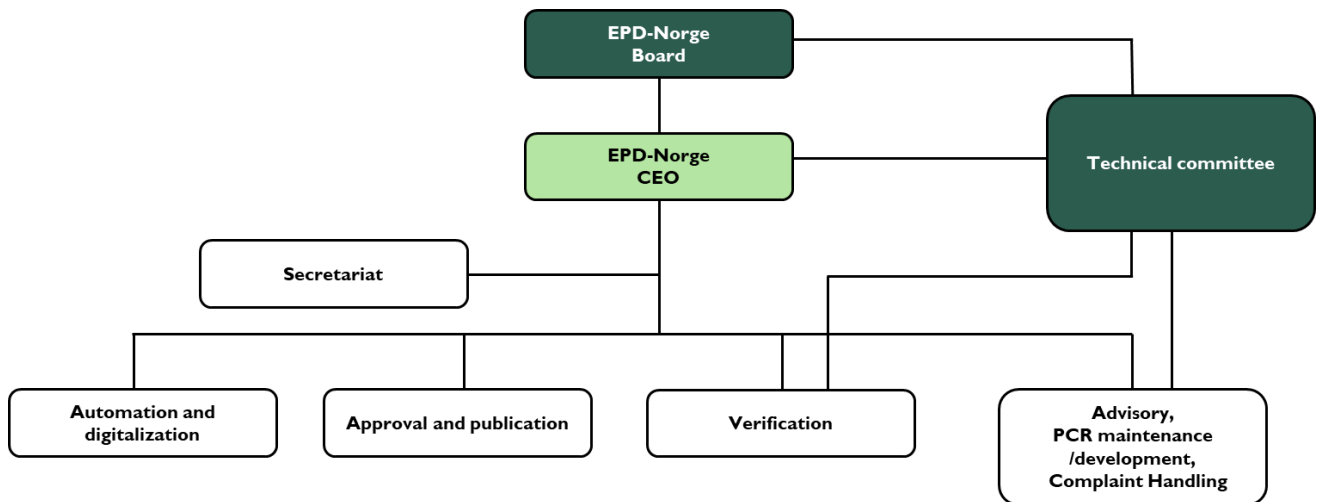


Figure 1: A flow chart showing the organizational structure of the EPD-Global programme.

2.1 Administration

EPD-Global is the programme operator for Type III environmental declarations in Norway. EPD-Global has the overall responsibility for administration to develop the programme and the operation of the EPD programme in Norway. The funding of the programme is mainly based on fees paid by EPD owners.

According to ISO 14025, EPD programme operators must carry out several mandatory assignments. These mandatory assignments are addressed in this GPI and the Quality management system by describing the tasks of the Board, the Secretariat and the Technical Committee (TC).

EPD-Global is responsible for:

- Preparing, maintaining and communicating the general programme instructions (this document).
- Developing, maintaining and publishing the PCR and related documents in collaboration with industry stakeholders.
- Recording and storing the PCR and EPDs according to the ISO/EN standards.
- Approval and publishing the EPDs.
- Developing, maintaining and communicating verification procedures.
- Managing the commercial operations of the programme.
- Ensuring that interested parties are involved in the programme.
- Managing complaints and appeals.
- Influencing and informing private and public stakeholders about increasing the use of EPDs.

- Influencing research groups so that they can attain sufficient and competent knowledge in producing life cycle assessments (LCA) and providing opportunities for the safe, fast and affordable design of EPDs. Facilitating the verification and registration of carbon footprint standards (ISO/TC 14067).

According to ISO 17029, the verification body must carry out several mandatory assignments. These mandatory assignments are addressed in this GPI and the Quality management system by describing the tasks of the Board, the Secretariat and the Technical Committee (TC).

EPD-Global is responsible for:

- Impartiality management – providing fair and transparent verification of EPDs
- Risk management – ensuring continuous improvement and mitigation of risks
- Operational control – including quality management and internal control
- Engagement processes regarding verification activities
- Management of competence

2.1.1 The Board

The Board shall consist of business organisations, trade organisations and representatives from manufacturers, professional buyers and government and academic communities.

The Board is the decision-making body for the development, operation, monitoring and auditing of the GPI. The Board shall:

- Decide which products and services might be relevant in the follow-up work of the EPD programme and propose measures to promote the development of the programme.
- Always ensure that there will be a functioning Secretariat and Technical Committee (TC).
- Elect the members and the leader of the Technical Committee (TC).

2.1.2 The Secretariat

The Secretariat's task is to handle the overall management of the programme.

Its most important tasks are to:

- Administer the programme and promote EPD-Global.
- Facilitate for and communicate the GPI and make sure that they are followed.
- Publish all EPDs and PCRs registered in EPD Norge on the www.epd-global.com website.
- Facilitate for the participation and involvement of interested parties.
- Provide all information related to the programme.
- Facilitate for the development of PCRs with the involvement of interested parties.
- Facilitate for the public consultation on PCRs and the GPI.
- Ensure that there are open procedures for PCR review, LCA and EPD verification.
- Establish procedures to prevent misuse of the programme and the EPD logo and trademark.
- Decide whether an EPD can be registered based on the electronic verification report and registration form.
- Monitor changes in standards and instructions and give proposals for changes in the programme.
- Ensure that the EPD-Global website is updated.

2.1.3 Technical Committee (TC)

The Technical Committee (TC) will consist of at least five LCA/EPD experts. The TC will provide professional advice to the Board and the Secretariat on:

- Assessing LCA-related issues.
- Acting as a PCR panel to verify that PCR proposals are made in accordance with the GPI.
- Assessing applications, appointing external verifiers and suggesting ways to monitor the competence of verifiers.
- Ensuring that approved verifiers perform their tasks in accordance with the GPI.
- Assessing applications for approval of EPD tools.
- Proposing measures for the development of technical and LCA-oriented issues related to the programme.

The TC shall be composed in such a manner that it covers a variety of product category areas and if necessary, seek advice from other experts. The tasks of the TC are described in more detail in Appendix C. The members of the TC shall be listed online at www.epd-global.com and can be contacted via the Secretariat.

2.1.4 Harmonization and Mutual recognition (MR)

EPD Norge will strive to harmonise the GPI with other programme operators such that an EPD can be registered simultaneously in several programmes. Being an established ECO EPD PO is key in this regard, adhering to the ECO Platform bylaws, rules, guidelines and position papers.

Mutual recognition agreements with other established programmes shall include:

- The scope of the mutual recognition (e.g. only for environmental declarations for a specific product category),
- Licensing fee structures,
- Procedures for the harmonisation of PCRs and PCR development,
- Procedures for verification,
- Procedures for registration and publication, including additional requirements if specified in an MR agreement, and
- Procedures to ensure that the conditions for the mutual recognition are kept valid.

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

The use of the logo for the other programme is dependent on the terms and conditions of that other programme.

The list of current mutual recognition agreements shall be available at www.epd-global.com.

Adding new mutual recognition agreements will mainly be based on market and customer demands.

2.1.5 The website

The website (www.epd-global.com) shall always contain updated information on the programme and provide a list of all approved EPDs and PCRs. Events, activities and other relevant information will also be published on the website. Other communication channels, such as e-mail newsletters and social media, should complement communication via the website.

The EPD-Global website is maintained by the Secretariat.

2.1.6 Registration of PCRs and EPDs

The Secretariat shall record and publish approved PCRs and EPDs on EPD-Norge's website. PCR documents shall contain information about the companies that participated in the PCR development and show who has led the work.

When an EPD is to be registered – the engagement process must be initiated. Ensuring adequate scoping and choice of verifier. After the verification the verifier shall submit an electronic verification report to EPD-Global's EPD- approval and publication portal with the EPD as an attachment. The EPD shall include information about the manufacturer, place of manufacture, contact persons, who has created the EPD and who has carried out the verification.

EPD-Global will submit a registration form to the EPD owner/company. When the registration form is returned to EPD-Global, the EPD will be published on www.epd-global.com.

The EPD will remain on the website during the validity period or until the owner asks for revocation. EPD-Global can choose to withdraw the EPD based on violations of the programme instructions (see Appendix C).

2.1.7 Use of the EPD-logo, EPD trademark and general usage of EPDs

EPDs from different programme operators are in some cases not comparable. It is therefore important that the EPDs contain a logotype from a recognised EPD programme operator. The EPD logotype and the EPD trademark are registered trademarks, and instructions for use of the EPD logotype and EPD trademark are found in Appendix E.

An EPD with the EPD-Global logotype, EPD number, expiry date and signature are considered as a verified and registered EPD.

EPDs with the EPD-Global logotype and a reference to the EPD-Global programme shall not be used in marketing before the declarations are registered by EPD-Global.

When using EPDs from EPD-Global as data input to studies both with academical and commercial purposes, the user of the EPDs must:

Always mention the relevant and used EPDs as Source Reference

Never use EPDs and/or selection of EPDs for misleading communication

If using EPDs for comparison, remember the EN15804 statement: *"Comparison of the environmental performance of construction products using the EPD information shall be based on the product's use in and its impacts on the building, and shall consider the complete life cycle. EPD that are not in a building context are not tools to compare construction products."*

False or misleading use of a declaration with the EPD-Global logotype can lead to confusion with environmental labelling and is prohibited.

Further information about the EPD logotype and EPD trademark are found in Appendix E.

2.1.8 Costs and fees

The fee structure for approval and registration of EPDs is as follows:

- EPD owners pay an annual fee to EPD-Global independent of how many EPDs they own.
- EPD owners pay a verification and registration fee for each approved and registered EPD. If a company withdraws an EPD before the expiry date, the fee shall be paid for

the whole year within which the withdrawal was made.

- There is a one-time fee for the audit of an EPD in languages other than Norwegian and English. Further information on the fee system is shown in Appendix F.

2.1.9 Transition periods

An EPD must be developed in accordance with the requirements given in this GPI, and the requirements in relevant standards and in relevant PCRs. These normative documents are subject to periodic revision. Such revisions may lead to periods of overlap between an old and a revised version of a document and there may be gap periods after the expiry of a document before a revised version is published. EPD-Global will on request provide information on transition periods. Significant transition periods will be published on www.epd-global.com.

Transition period for PCRs from EPD-Global that under revision.

As a general rule, unless the PCR is withdrawn by EPD-Global, a published PCR is valid in the transition period and for 3 months after the revised version is published.

2.2 Development of PCRs (Product Category Rules)

EPD-Global shall ensure that the development of PCRs associated with the programme follow the rules outlined in ISO 14025. During PCR development, efforts shall be made to harmonize the PCR with the goals of the programme. The development of PCRs is led by a PCR convenor appointed by EPD-Global. The PCR convenor shall have sufficient knowledge on LCA. A PCR group shall be established consisting of experts and stakeholders within that relevant product category. At the beginning of this work, a survey will be taken to determine if there are existing national or international PCRs for the product. In some industries, standards have already been developed, for the preparation of PCRs, for example, EN 15804 – Core rules for the product category of construction works. Further information on the preparation of PCRs can be found in Appendix D.

2.2.1 Tasks for the convenor in the development of PCRs organized by EPD-Global

The convenor shall:

- Ensure (in cooperation with EPD-Global) that LCA/PCR experts and interested parties are invited to join the PCR group to develop the PCR document.
- Be responsible for the first draft document.
- Ensure that meetings of the PCR group are convened.
- Guide the process in the PCR group.
- Revise the draft PCR document.
- Ensure that the PCR document follows the EPD-Global PCR template.
- Ensure that the PCR document will be sent out for open consultation by the Secretariat.
- Collect comments and finalize the PCR document.
- Alert all involved parties of the result of the work and ensure, together with the Secretariat, that the document is published on EPD-Norge's website.

2.3 EPD development

2.3.1 Development of EPDs in companies

A company can prepare an EPD by itself, but if the company does not have sufficient expertise, then LCA/EPD experts should be engaged.

Companies that wish to prepare an EPD for registration and publication shall:

- Collect LCA data and other relevant environmental information according to

the general programme instructions and relevant PCR document.

- Process LCA information that will be necessary for the EPD.
- Prepare an LCA report. The LCA report structure shall follow EPD-Norge's LCA report template, but formatting/layout may be modified, and additional information may be added.
- Contact EPD-Global according to the engagement process, ensuring that an approved, independent third party verifier verifies the LCA data and EPD information
- Ensure that approved EPD tools are used to conduct an internal verification of the company- specific input data. Internal verifiers shall have completed relevant training and been approved by EPD-Global.
- Routinely monitor the accuracy of the information in the EPD and notify the verifier about significant changes in the input data during both the development and the valid lifetime of the EPD.
- Ensure that the verifier sends a verification report with an enclosed EPD to EPD-Global for approval.
- Fill in the registration form and send it to EPD-Global.
- Pay the annual fee and registration fee to EPD-Global.
- Give notice to EPD-Global concerning the update or withdrawal of the EPD (if necessary).

For more information about the development of an EPD, see Appendix A

2.4 Verification of the EPD

Approved independent third-party verifiers shall perform the verification of EPDs. EPD-Global approves of certified verifiers and publishes a list of independent third-party verifiers on their website.

2.4.1 Approval of certified verifiers

The approval of verifiers is based on a formal application from the verifier candidate to EPD-Global. The Technical Committee (TC) will evaluate and either approve or not approve the application based on certain criteria, see Section 5.1. If the application is not approved, then the TC will give formal feedback to the verifier candidate.

The approval of certified verifiers normally takes place at the first TC meeting after the application is received.

2.4.2 Independent third-party verification

Independent third-party verifiers will review the EPD and:

- Assess the underlying data used in LCA calculations presented in the LCA report.
- Consider how the calculations are performed and if they follow the PCR.
- Assess how environmental impacts are presented in the EPD.
- Consider how other environmental information is presented in the EPD.
- Provide documentation of verification in the electronic verification report to EPD-Global. The verification system is described in Section 5.

3 Preparation of Product Category Rules (PCR)

If the market is to be able to compare EPDs, the EPDs must be prepared according to specific rules. In addition, if the market wishes to summarize the environmental performance of several EPDs for a single product, the EPDs must be worked out according to the same specific rules for the same product group/category – the Product Category Rules (PCR). In

addition to the general programme instructions and rules for LCA calculations, the requirements of the PCR must be followed. The hierarchy of standards and PCRs is given in figure xx. In addition – as an ECO EPD programme operator, EPD-Global are obliged to follow ECO Platform guidelines².

If there is uncertainty about the definition and understanding of the PCR, then the query shall be addressed and treated by the Technical Committee (TC). Figure 2 states the hierarchy of PCRs and normative documents. When harmonized EN (hEN) standards are published and the EU CPR aquis is entered into force – the hEN standards will be put first.

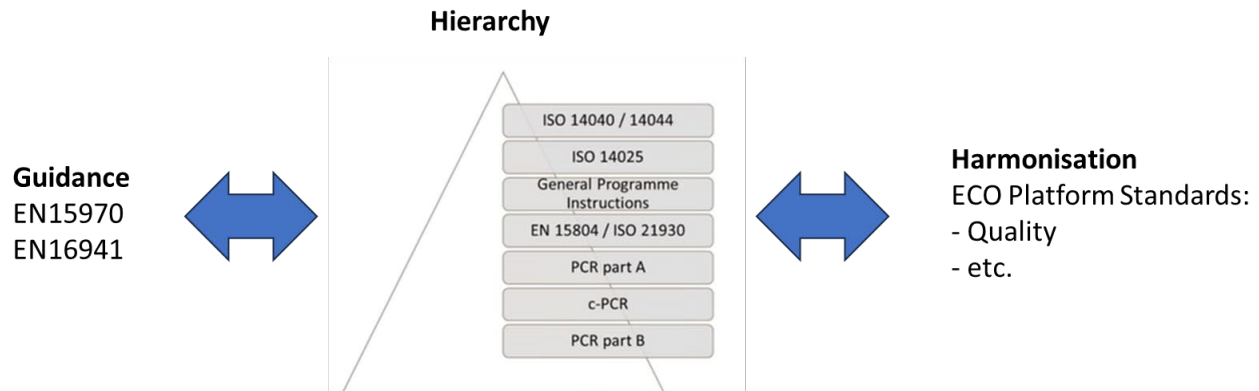


Figure 2: The structure of PCRs and other normative references for EPDs

3.1 Content of the PCR document

The development of PCR shall follow ISO 14025, clause 6.7.

The contents of the PCR document for building materials shall comply with EN 15804 and describe additional requirements in an appendix (Appendix A1 and A2 of the PCR).

If not all the requirements given in the standards are considered, then this should be justified with supporting information.

More detailed information on the development of PCRs is given in Appendix D.

Additional guidance for developing and updating PCR documents may be found in ISO/TS 14027 Environmental labels and declarations – Development of product category rules.

3.1.1 Transparency

The market acceptance of, and confidence in, verified environmental declarations depends on the system's credibility. Different stakeholders will have the opportunity to submit their views and influence the development of the PCR by participating in PCR developmental work. In EPD-Global, this occurs through the stakeholders of the product group who participate in the development of a PCR.

As part of the hearing process, EPD-Global will publish the draft PCR on its website and contact different national and international experts to comment on the draft. The PCR group will review the written comments regarding the PCR draft before the Technical Committee (TC) issues final approval.

3.1.2 International harmonisation of PCRs

EPD-Global shall seek to harmonise PCRs in different product areas and with other international

² [Our documents - Eco Platform en \(eco-platform.org\)](https://www.eco-platform.org)

EPD programme operators. This is in line with the recommendations given in ISO 14025. This means that PCR documents from other EPD programme operators for the same product category might be used. In other cases, useful parts of text prepared by other programme operators might be used.

3.1.3 Recognition of PCRs from other EPD programme operators

PCRs from other programmes that follow the requirements of ISO 14025 or EN 15804 (building materials) might be accepted if they are in accordance with the requirements of this programme and have:

- Matching system boundaries
- Corresponding allocation rules
- Corresponding impact categories
- Corresponding functional/declared unit
- Similar rules for calculations of waste
- Consultation with stakeholders

After review and approval by the Technical Committee (TC), these PCRs will be registered and published on EPD-Norge's website.

PCRs from EPD programmes that have a Mutual Recognition agreement with EPD-Global are recognised in accordance with the scope and terms defined in the MR agreement for each programme.

4 Requirements and format of EPDs

In general, the programme operator will accept all Type III environmental declarations of a product category that include the parameters identified in the PCR. EPD-Global has chosen to define the format for the EPD, and this is shown on EPD-Norge's website. If companies require a specific reporting format, then EPD-Global will be flexible on this matter. It is, however, important that the content of the EPD contains all prescribed information and that pages 1, 2 and last page follow EPD-Norge's template format. EPDs can be prepared in different languages, however EPD-Global recommends that EPD owners always publish an English version. If EPDs are made in two or more languages, each variant will be charged with a separate publication fee.

An EPD shall include the following sections:

- Name of programme and programme operator
- Description of the product
- Content declaration
- Information on environmental performance
- Additional environmental information
- Mandatory information (Appendix A1 in the PCR)

The content of an EPD shall be accurate, verifiable, relevant and not misleading (see ISO 14020). An EPD shall not make comparisons with other products (see ISO 14025).

4.1 Mandatory information

If the declaration does not cover all stages in the life cycle, then the EPD shall contain information about which stages of the LCA have not been considered and information about where to

obtain explanatory material.

The owner of the declaration shall be liable for the underlying information and evidence. EPD-Global shall not be liable for manufacturer information, life cycle assessment data and material evidences.

The EPD shall also include a statement that EPDs from different programme operators might not be directly comparable.

For EPDs prepared by PCRs based on EN 15804, the following statement will be included:

- “EPDs of construction products may not be comparable if they do not comply with EN 15804 and are not seen in a building context. See also EN 15942³”

In addition, information on the PCR review, the independent verification of the environmental declaration and data shall be declared in accordance with ISO 14025:2010. An example of this is given in Figure 2.

<p>The PCR review was conducted by:</p> <p><organization and name of the chair of the review comity and information on how to contact the chair through the programme operator></p>
<p>Independent verification of the EPD and data in accordance with ISO 14025:2010</p> <p><input type="checkbox"/> internal <input type="checkbox"/> external</p>
<p>(Where appropriate) Third-party verifier:</p> <p><name of third-party verifier></p>

Figure 2. Information on the PCR review, independent EPD verification and third-party verification to be documented in an EPD.

4.2 Registration of an EPD

For information on registration of an EPD, see Section 2.1.7.

4.3 Validity of an EPD registered by EPD-Global

The validity period for an EPD registered with EPD-Global is 5 years. The EPD owner should initiate, in due time before expiry, revision of the EPD. If one or several of the core impact categories, summed over the included life cycle stages, increases by more than 10% during the validity period, the EPD owner must update the EPD.

The EPD owner shall establish procedures to monitor changes in the product or production system that may lead to significant changes in the environmental impact (see 4.4 for threshold values). This shall be done at least annually. EPD-Global may request documentation of this procedure and its results. An agreement should be established between the company and verifier to ensure that the content of the EPD during the validity period is still in line with

³ EN 15942:2011, Sustainability of construction works – Environmental declarations – Communication format business to business

as well as being specific about the partition between verification and consultancy in marketing.

If the verifier and the person preparing the LCA report and EPD belong to the same organisation, then they should operate in separate units. Independence shall be ensured, for example, by accreditation according to ISO 17021 and/or ISO 17029. This must however not be in breach of the clause above.

If no such accredited system exists, independent verification shall be documented through written procedures in accordance with the requirements of ISO 14025.

For more information on the qualifications and tasks of verification, see Appendix B. For more information on verification and approval of EPD tool, see Appendix G.

5.3 Reporting of the LCA for the purpose of verification

The EPD shall describe the environmental performance of the product or service from a LCA report. A LCA is a method that describes the use of energy and materials and shows the potential environmental impact of a product or service either as part of the “cradle-to-gate”, “cradle-to-gate with options” or complete “cradle-to-grave” life cycle. This method includes the following steps:

- Definition of goal and scope of the LCA study
- Data collection, inventory of relevant activities and emissions from the materials and energy in a production system
- Environmental impact, an assessment of the potential environmental effects associated with use and emissions
- Interpretation of the results from the inventory and of environmental impact phases in relation to the goal and scope of the study
- Presentation of the results of the inventory in such a way that they can be used to prepare an EPD

The LCA shall be carried out according to the ISO standards for life cycle assessment (ISO 14040 and ISO 14044) as well as supplementary rules issued in the PCR and EPD programme and documented in a LCA report. The structure and content of the LCA report shall be in accordance with EPD-Norge's LCA report template.

5.4 Verification report

An approved and independent verifier shall complete the electronic verification report, available from EPD-Global, in English, and the EPD shall be included in the report and uploaded to EPD-Norge's EPD- approval and publication portal.

6 Policy violation

A company or organisation that has an EPD shall have documented procedures for the tasks that will be included in working out the declaration. If the company or organisation detects infringements in terms of deviations of a magnitude enough to affect the declaration, then this shall be reported to EPD-Global. It is then up to the internal or external verifier to ensure that the company or organisation handles the deviations under current practice.

Verifiers can detect violations of the regulations by reviewing and checking the declaration. In these cases, the principle is that it is the verifier's responsibility to notify the company or organisation that corrections must be made as well as ensuring that the changes are carried out. The verifier shall then contact EPD-Global and announce the changes.

EPD-Global shall be notified of violations of rules that apply to the use of EPDs in information and marketing. EPD-Global shall in such cases advise the company or organisation as to which corrections need to be made.

The Board adopts the legal and administrative measures for infringements on the provisions of the system of declarations. In cases when the verifier and/or EPD-Global has repeatedly provided notification of necessary corrective measures, and the company or organisation has not acted upon this within a reasonable time, then the registration of the verified EPD will be revoked and declared invalid. The Board makes final decisions on the revocation of EPD registrations. EPD-Global shall maintain a list of revoked EPDs.

7 Handling complaints

EPD-Global has the following procedures for handling complaints:

- EPD-Global decides on an application for registration of an EPD.
- The EPD applicant or companies with legal interests can appeal the decision to the Board. The complaint must be justified and supported by verified evidence.
- The appeal deadline is set to three weeks from when the EPD applicant or business with legal interests (a third-party) becomes aware of the decision. The appeal deadline expires no later than six months after the decision is made.
- The Board shall decide upon the appeal, and the Board's decision in appeals cannot be reviewed.
- Disputes should be resolved by mutual agreement.
- Disputes shall be settled by the Arbitration Act and by Norwegian law.

The Board may, on its own initiative, reverse the decision on registration of an EPD if the EPD is based on erroneous assumptions.

7.1 Appeals against decisions by the Technical Committee (TC)

Decisions taken by the Technical Committee (TC), e.g. regarding the approval of verifiers, can be appealed to the Board of EPD-Global. The Board may request the Technical Committee (TC) to make a new assessment.

For verifiers, the Technical Committee (TC) may revoke the approval of the verifier for justifiable reasons.

8 Audit and commencement of General Programme Instructions

8.1 Revision of General Programme Instructions

EPD-Global may, at its discretion, decide to revise general programme instructions.

The Board of EPD-Global shall approve amendments to the programme.

Revision of GPI and requirements described in Appendices A to H shall be performed as required.

8.2 Commencement

These general programme instructions were revised and approved by the Board of EPD-Global, Oslo, September 18th 2024

General Programme Instructions

for The Norwegian EPD Foundation

Appendix A



epd

Appendix A – Life cycle assessment (LCA) and environmental product declaration (EPD) methodology

1 LCA methodology

The LCA methodology consists of:

- Determining the objectives and scope of the investigation.
- Collecting and processing data.
- Assessing the environmental impacts.
- Interpreting the results.

The following international standards shall be used for data collection:

- ISO 14040:2006, Environmental management – Life cycle assessment – Principles and framework
- ISO 14044:2006, Environmental management – Life cycle assessment – Requirements and guidelines

ECO platform LCA calculation rules shall be followed for construction products. Other references that may be used in LCA calculations are the EN 15804, IS/TS 14067, GHG reporting, ILCD manuals, and the new Product Environmental Footprint (PEF) guidelines.

In addition to the standards, the requirements of the EPD-Norge's general programme instructions (GPI) and the requirements given in the relevant PCR shall be met.

2 Objectives and scope

The objective and scope of the life cycle assessment is to obtain the necessary documentation to produce an EPD. Documentation shall follow the requirements of the programme and the PCR. In addition, information and knowledge of the environmental effects of the life cycle of the process/service/product shall be obtained.

2.1 The life cycle assessment shall be divided into at least three phases:

- Production phase (cradle-to-gate)
 - extraction and use of raw materials and energy to make the finished product based on company-specific data
- Use phase
 - distribution of the product to the customer and the use of the product (including maintenance, repair, and replacement)
- End of life phase
 - recovery or disposal of the product

For building materials, the LCA shall be divided according to EN 15804:2012+A2:2019, section 6.2.

2.2 Functional unit/declared unit

The functional unit is a quantitative description of the product's function that the results are related to. The functional unit shall include the product's reference service life. Normally the technical service life is used as the product's reference service life. The reference service life is normally expressed in years.

Selecting a different reference service life than the technical service life must be justified. If the product's real life is shorter than its technical service life, then the technical service life should not be used.

Construction materials that comply with ISO 21930 / EN 15804 should use "Declared unit" or "Declared unit with options" for all functions that do not include the entire lifecycle.

2.3 System boundaries

The choice of system boundaries will set a delineation for the scope and data used in the life cycle assessment, and this may simplify the calculations. This is done under the assumption that important information is not lost.

In general, the following shall apply:

- All "cradle-to-gate", "cradle-to-gate with options", and "cradle-to-grave" processes shall be included. Exceptions must be justified. "Cradle-to-gate" is used for raw materials, intermediate goods and components. "Cradle-to-grave" is used for the final product.
- Production of capital, buildings and equipment that are not included shall be justified. This justification shall be based on quantitative assessments to the cut-off criteria. Conservative assumptions can be used when data is missing and is always better than leaving out activities in the inventory.
- Person-related environmental impacts such as travel to and from work are not included.

The rules for the selection of system boundaries are described in ISO 14044.

Loss of information because of limitations in materials and processes may occur during the data collection and can be accepted if the total sum of lost data does not exceed 5% per life cycle stage.

The following two rules apply to cut-off and data variation:

- Processes and activities that do not contribute more than 1% to the total environmental impact in some of the environmental impact categories can be left out from the inventory.
- Similar types of products can be included in the same declaration if the variation in the GWP total environmental impact category does not exceed +/- 10% (the range shall be specified in the declaration).

The PCR may give detailed rules that should be followed in specific LCA calculations.

3 Collection of data

Data collection should be carried out in a way that the data can easily be transferred to the life cycle assessment. It should be possible to sum up the results with other subsystems (modularity).

The information in an approved EPD will often be described for different periods. Process data represent the production period, but the environmental impact often occurs over a significantly longer period. The time period may be a result of the impact on the environment in terms of emissions or other environmental burdens. The information in an approved EPD is only relevant if no major changes in the underlying material occur. In general, data should be expressed as an annual average.

Data for the use and disposal phases that extend over time shall be scenario based and justified.

Data Confidentiality

LCAs and EPDs often require specific process and product knowledge, which will be kept confidential. Often, the manufacturer has these specific skills and knowledge, not the LCA/EPD practitioners or the verifiers.

Because the results for an EPD cannot be measured directly with other product characteristics – such as tensile strength – it is very difficult to ensure the absolute accuracy of data. Quality control will consist, therefore, of indirect controls such as whether the proper procedures were followed.

An approved and verified EPD is valid for a maximum of 5 years. After this time, a new external verification must be carried out, and the verifier will collaborate with the EPD owner to decide how the verification is to be conducted.

An approved verifier cannot disseminate specific information or results that emerge during the audit or investigation without the company or organisation's agreement.

3 Approval of the external verifier

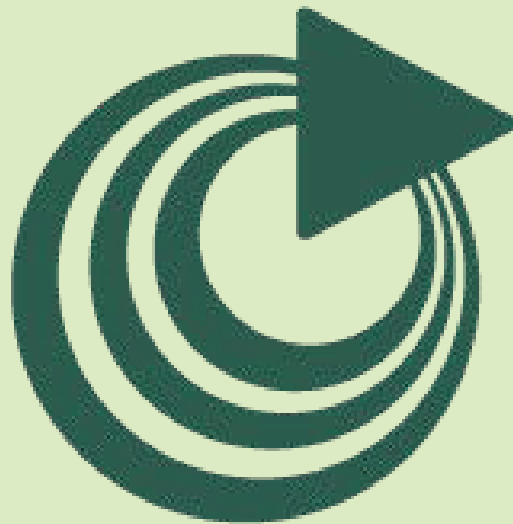
Approval of external verifiers is based on applications to the EPSFEP from the verifiers. The verifier will request an application from the Secretariat, and this will be completed and submitted along with the verifier's CV. Applicants must meet the minimum requirements set out in Chapter 1 of this appendix.

The Technical Committee (TC) will assess the applications from individuals wishing to be approved as verifiers and will validate those who are qualified. After approval from the Technical Committee (TC), and in consultation with the Secretariat, the verifier will receive a certificate of approval. A verifier is certified for a period of three years.

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Appendix C



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Appendix C - The Technical Committee and EPD registration

1. Technical Committee (TC)

The Technical Committee (TC), hereafter TC, shall consist of at least five LCA/EPD experts to assist the Board and Secretariat to:

- Consider LCA-related issues.
- Act as a PCR panel to consider and approve PCR proposals made in accordance with the guidelines of the programme.
- Assess applications, appoint external verifiers and suggest ways to monitor the competence of verifiers.
- Ensure that approved verifiers perform their duties in accordance with the guidelines for verification.
- Propose measures for the resolution of technical and LCA-oriented issues related to the programme.

The TC shall be composed in such a manner that it covers the largest possible number of product category areas. The TC will occasionally seek advice from outside experts.

Review of PCRs

The TC will initiate review of new and existing PCRs and ensure that they follow the standard template that EPD-Global has prepared.

PCRs will be reviewed in accordance with ISO 14025 section 6.7 (ISO 21930 section 6.2, and EN 15804 for building materials). The review should take place every time PCRs are updated to confirm that they are prepared in accordance with ISO 14040 and ISO 14044 and that they meet the general guidelines from EPD-Global.

PCR investigations shall demonstrate the following:

- The PCR has been developed in accordance with ISO 14025 section 6.7.1 (ISO 21930 and EN 15804 for building materials) with reference to ISO 14040 and ISO 14044.
- The PCR follows the layout of the template and meets the guidelines of EPD-Global.
- The LCA data and other environmental information that the PCR require accurately describe the key environmental aspects of the product.

When PCRs are prepared under the auspices of the programme operator, an archive shall be created upon review of the PCRs in which all the consultation documents will be collected. These documents will be incorporated or rejected when the PCR review takes place. When the PCRs are completed, they will be given a version number using the following format Ver: day. month. year. The document will be signed by the head of the TC and sent to all participants in the PCR working group and published on EPD-Norge's website.

2 Registration and publication of EPDs

2.1 Information to be included upon registration of an EPD

When an EPD shall be registered, an electronic report (the verification report) with the EPD enclosed, shall be sent to the Secretariat. The EPD shall include information about the manufacturer, place of manufacture, contact persons, who created the EPD and the verifier.

When the verification report and the EPD are approved, a registration form will be sent to the EPD owner by the Secretariat. When the Secretariat has received a completed and signed registration form, the EPD will be published on <http://www.epd-global.com/>. The Secretariat will provide updates of EPDs in need of revision.

EPDs will remain on the homepage of EPD-Global until the owner asks for withdrawal or EPD-Global chooses to withdraw the EPD due to violations.

2.2 Description of reporting procedures

A description of the format and the content of the EPD can be found on <http://www.epd-global.com/>. Upon submission to EPD-Global the document should follow the requirements in chapter 4 of the GPI. The EPD may be submitted as a pdf in the verification portal or in a digital format. See <https://digj.EPD-Global.com/> for updated information on digital EPDs.

2.3 Design of internet information

It is important that the information in a verified EPD is useful in different contexts where there is a need for objective and comparable information about the environmental properties of different products and services. “Supporting Information” should be available in the form of explanations of definitions, concepts, and general information about the associated environmental issues. This simplifies the interpretation and understanding of the information given in the EPD.

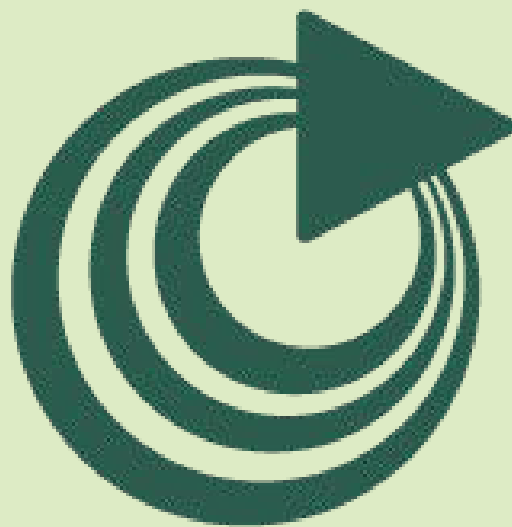
The information in a verified EPD shall follow a pre-approved template based on common headings (see Appendix A). The headings shall refer to the material that requires explanation such as:

- Explanation of special terms, concepts and information
- Referral to general information on the environment

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Appendix D



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Appendix D – The preparation of product category rules (PCR)

1 Initiation and anchoring

Work on developing proposals for PCRs can be initiated by a single company, a group of companies or by industry interest groups. In some cases, a single company initiates the work. In these cases, it is especially important to ensure support from manufacturers of similar products. Companies that have similar products will be contacted and offered the opportunity to participate in the PCR development.

If the PCR is to be approved and published by EPD-Global, the programme shall appoint a leader (PCR convenor) for the work. The convenor shall ensure that the PCR development follows the requirements of ISO 14025 and the relevant PCR harmonisation initiatives. For building materials, the development shall follow the instructions given in EN 15804.

1.1 Involvement of stakeholders

Market acceptance and confidence in verified EPDs depends on the system's credibility. An important way to ensure such credibility is to give various stakeholders the opportunity to submit their views and influence the design of the PCR that apply to different product groups and services. To ensure this requirement, meetings shall take place with stakeholders before the PCRs are adopted. Another important purpose of meetings with stakeholders is that this serves as notification that declarations within a specific product range or type of service will soon be available on the market.

The company/organisation or project team that prepares the proposal for the PCR shall arrange stakeholder meetings and direct invitations to the affected stakeholders should be sent. One important application of verified EPDs is as supporting evidentiary environmental documentation when public and private procurement takes place. Such documentation will be an advantage in discussions with professional buyers in industry and government.

All participants at stakeholder meetings shall receive a complete description of the proposed PCR and will have the opportunity to comment. The meetings should be adapted to the intended application of the EPDs, i.e., whether they should be used for raw materials and other inputs in the customer/supplier link or for general information and marketing of the finished product. The meetings should also be customised for each company that has prepared a proposal for the PCR.

Invitations will be sent to all interested parties, authorities, governments, ministries, industry associations, enterprises and organisations (occasionally international groups) that are associated with the current product range as well as environmental organisations and other parties who have an interest in participating. Opportunities should be given to submit written views.

A simple description of the EPD system shall be available so that participants can see how the system is structured and works.

Views that are brought before the meetings shall be documented and submitted together with the presentation of the proposed PCR to the Technical Committee (TC).

2 Procedure for the development of PCRs

The preparation of proposals for PCRs should be carried out according to the following steps:

- Initiation and anchoring
- Preparation of proposals
- Meetings (normally three or four) with stakeholders
- Internal consultation and language check
- External consultation
- Approval by Technical Committee
- Publication

2.1 Preparation of proposals for PCR

Preparation of proposals for PCR shall include the following items (see ISO 14025, ISO 21930, and (for construction materials) EN 15804):

- Selection and definition of the product group or service type
- Goal, scope and definition for the LCA of the product, according to the ISO 14040 series
- Selection and definition of the functional unit
- Selection and description of the system boundaries
- Choice of cut-off criteria
- Choice of allocation rules
- Selection of specific parameters to describe the environmental performance (in addition to the mandatory parameters given in the template)
- Description of the type of information that should be included in the use phase of the declaration on environmental characteristics
- Choice of units that the results should be expressed in

It is recommended that the PCR establishes an inventory of common materials and hazardous substances, for example, alloys and additives, that are relevant to the product group. This should be based on knowledge of the substances' environmental characteristics. If there is a product fact sheet that also has a list of substances, then these inventories should be treated equally.

If one or more of the above items are omitted, then this should be justified. In some cases, it might be necessary to emphasise that the PCR regarding the LCA-based calculation method are followed when preparing the documentation for an approved EPD. It might, for example, affect different phases of the LCA or include some aspects concerning packaging, transport or similar.

Other areas that may need clarification may include environmental impact assessments, especially in cases that are difficult to quantify and where there is consensus that it is important to describe the complementary information in general terms to increase the understanding of the environmental properties.

3 Approval of the PCR

The TC shall approve the proposed PCR and will consider the contributing parties' opinions. The PCR proposal presented to the TC shall include the items listed in section 2.1.

Feedback on the TC's proposal for the text can be solicited during the development of the PCR.

3.1 Approval of a PCR developed by a single company

Special considerations apply to the determination of PCRs in cases where a single company has developed them. This is because the assumptions made when multiple companies collaborate within an industry and agree on common rules are not necessarily applicable. A PCR developed by a single company might also lack a unified view compared with those developed by multiple parties that have a broader knowledge included in the PCR.

The TC should analyse the motives of a single company or organisation when considering the proposal for a PCR. This may take the form of a "questionnaire" when the proposal is submitted to the TC. The representatives of the company should have adequate expertise in answering the questions from the TC.

4 Validity of a PCR

To achieve stability in the market, a PCR shall be valid for five years unless stated otherwise.

PCRs may be revised as required. Companies or organisations that have an EPD can demonstrate such a need for revision, but others may also do this. Shorter audit periods might be necessary if a single company prepares the PCR. Notification of the need for changes within the period of validity shall be addressed by the TC. An expired PCR can still be valid for a reasonable time, if the expired PCR is under revision.

4.1 Publication of a PCR

After the decision to accept the PCR, the TC shall immediately notify the Secretariat to publish the PCR on EPD- Norge's website www.epd-global.com.

The TC shall make all records of the meetings available to anyone who wants to view them. Copies of more detailed supporting documentation can be obtained from the person or persons who prepared them.

4.2 Revision of a PCR

A PCR should be revised before the end of its validity period. When the PCR is about to expire, EPD-Global shall initiate a discussion with the PCR stakeholders on how to proceed with updating the document and renewing its period of validity. The Secretariat should issue reminders to PCR stakeholders up to a year before its expiration. There should be a market demand to create EPDs to initiate the updating phase.

The preparation of proposals for revision of a PCR should be carried out according to the following:

- Initiation and anchoring
- Preparation of proposals
- Meetings (normally 1 to 3) with stakeholders
- Internal consultation and language check

- External consultation
- Approval by Technical Committee
- Publication

EPD-Global shall appoint a PCR convener for the updating process of a PCR document. Initially, 1 to 2 people (ideally an expert in PCR development and/or expert in the relevant product category) will write a draft PCR. The draft PCR will be based on the latest version of GPI, recent developments in LCA methodology and indicators, standardisation, alignment with other PCRs published by EPD-Global and sector PCRs (if available) developed and published by a trade organisation.

When a draft version of the updated PCR is available, a complete PCR team will be established. The same principles as for a new PCR will apply. The PCR team will together discuss and revise the draft PCR. An internal consultation and language check will take place before external consultation.

The updated draft shall be reviewed and approved by the Technical Committee before publication.

The Secretariat shall prepare the final editorial changes and publish the updated PCR at www.epd-global.com with an updated period of validity and new version number.

5 Pre-verification of EPD as part of preparing a PCR

Within the framework of the system for verified EPD, is the opportunity to engage in experimental activities and thereby undertake a so-called 'pre-verification' of an EPD. A pre-verification might be a first step in preparing the PCR together with other parties. This is easier if there is access to existing examples.

Other purposes for pre-verification of EPD include:

- To provide opportunities for early information on the environmental characteristics in question.
- To facilitate a discussion with stakeholders about the design of any content and/or recycling declarations.

The following requirements apply to a pre-verification of an EPD:

- Documentation shall be based on the guidelines given in ISO 14040 and ISO 14044. Lower requirements may be accepted in terms of inputs and LCAs of one's own production process (for more details, see Appendix A). Deviations from the general guidelines shall be justified, and the TC must approve any deviation.
- A pre-review and an investigation by the TC concerning certain specific questions must be carried out (see below).
- An accredited verifier shall conduct a review and assessment of the documentation for presentation.
- Interested parties such as special interest groups and professional organisations (if any) should be informed about the upcoming pre-verification.

It is not unusual that there is a lack of data in the documentation of the EPD that shall be pre-verified. This is acceptable if the missing data have only a small impact on the environment and on the activities outside of its "own business". Occurrence of such data gaps should be disclosed, and it should be discussed as to what kinds of environmental impacts might be related to the missing data.

The process by which the TC “examines” the proposal for pre-verification is like that of an evaluation and in this way satisfies the need for harmonisation and equal treatment in relation to previous PCRs. Specific questions the TC should consider include:

- Selection and definition of the functional unit
- Selection and description of system boundaries
- Choice of any custom appraisal rules
- Choice of allocation rules

The TC will (if required) decide on requests to deviate from the rules for the use of generic data (see Appendix A).

5.1 Process for pre-verification

The process of registering a pre-verified product will result in:

- A report to the registration authority for a preliminary investigation by the TC.
- Checking documented data and the way in which it is presented by an approved verifier.
- A Board decision.

If the declaration is going to be published on the Internet (www.epd-global.com), then it must be designed according to the PCR template and it must be clearly stated that it is a pre-verified EPD.

5.2 Validity

A pre-verification is valid for a specific time, and up to a maximum of one year. The applicant proposes the validity period after consultation with the person who has reviewed and approved the documentation based on the time that is used in preparing the PCR.

5.3 Special information rules for pre-verification

Companies or organisations that have carried out pre-verification must ensure that the product is registered under these conditions. A special agreement should be established between the applicant and the TC as to which rules apply to the pre-verification process.



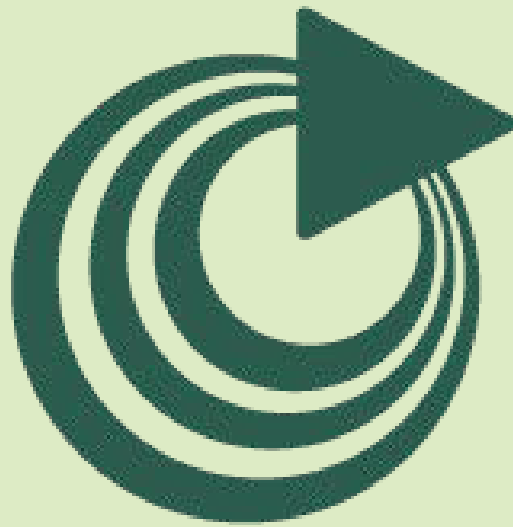
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Appendix E



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Appendix E – The use of environmental product declarations as information

1.1 Guidelines for the EPD-logo

As a member of EPD-Global, use of EPD-logo is always regarded as consent and acceptance of the guidelines and regulations published by EPD-Global.



The EPD-logo shall always be used together with the EPD declaration number.

It is not allowed for a company to use the EPD-logo generally, e.g. as a standalone logo without reference to a specific EPD.

It is the product or service and not the company that has a valid EPD. An EPD is valid for five years and the product or service can use the EPD-logo so long as the EPD is valid. When an EPD is no longer valid, it is no longer allowed for the EPD-logo to be associated with the product or service.

It is not allowed to add to or alter the EPD-logo without approval from EPD-Global. The logo can be reproduced without the colours for black and white printing.

For all marketing purposes of products or services with a valid EPD, all laws about marketing shall be adhered to, as well as other relevant laws in the respective countries.

If there is uncertainty about the use of the EPD-logo in marketing materials, please contact EPD-Global. The EPD-logo can be freely used for educational purposes or in editorial reviewing.

For more information and to download the EPD-logo, see www.epd-global.com.

1.2 Guidelines for the use of the EPD-Global logo



The logo is made for EPD-Global. The administration, the Board, and all committees can use the logo when they represent EPD-Global. The logo will be available upon request from the administration of EPD-Global.

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Appendix F



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Appendix F - Fees for participating in the EPD-Global programme

There is a fee structure associated with the registration and publication of EPDs in the EPD-Global programme. These fees are the main source of funding for the operation of the programme. The fees include a one-time registration fee and recurring fees (e.g. annual) to maintain registration, publication and the continued use of EPDs.

The fee structure and fee amounts are revised regularly and are approved by the Board of EPD-Global.

The fee system is divided into the following main types:

- Verification fee
- Registration fee
- Approval and publication fee for EPDs
- Verification and approval fee for EPD tools

Up-to-date information about fees shall be available at www.epd-global.com .

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Appendix G



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Appendix G - Requirements in connection with the verification, approval and use of LCA tools when creating EPDs

This appendix specifies the requirements for developing a life cycle assessment (LCA) tool, including routines, processes, knowledge and documentations required. The goal of a LCA tool is to meet the need for streamlined production of EPDs for multiple products and to allow the user to publish EPDs on demand.

A verification checklist for LCA tools is published on EPD-Norge's website.

Fees for the verification of LCA tools and associated administrative costs for any additional aspects are published on EPD-Norge's website.

1.1 General

Companies have indicated a desire to simplify the process of creating environmental product declarations and reduce the amount of work in collecting data, performing LCAs and creating EPDs for similar product types or from the same company by using an LCA tool. It is of importance to make the verification process less demanding in terms of time and resources, whilst at the same time complying with the requirements of the EPD programme. In order to accommodate these wishes, the Norwegian GPI is handling these demands by introducing the concept of LCA tools for creating EPDs. EPDs created using these tools shall have the same quality as EPDs created without tools. Therefore, additional quality checks are introduced for the tools.

LCA tools approved of by EPD-Global are divided into the following three alternatives:

- **Background LCA data tool:** as a prerequisite for ready-made and approved upstream LCA data
- **Reference flow tool:** as above but also includes a bill of materials (BoM) describing an assembly product or a recipe for a single product
- **Process certification tool:** as above but also includes a management system that allows the company to internally approve and issue new EPDs for registration.

The flowchart below shows the process for creating EPDs via four possible routes (e.g. no tool, background LCA data tool, reference flow tool and process certification tool). All routes are based on the flowchart of the verification process shown in Appendix B, section 2.

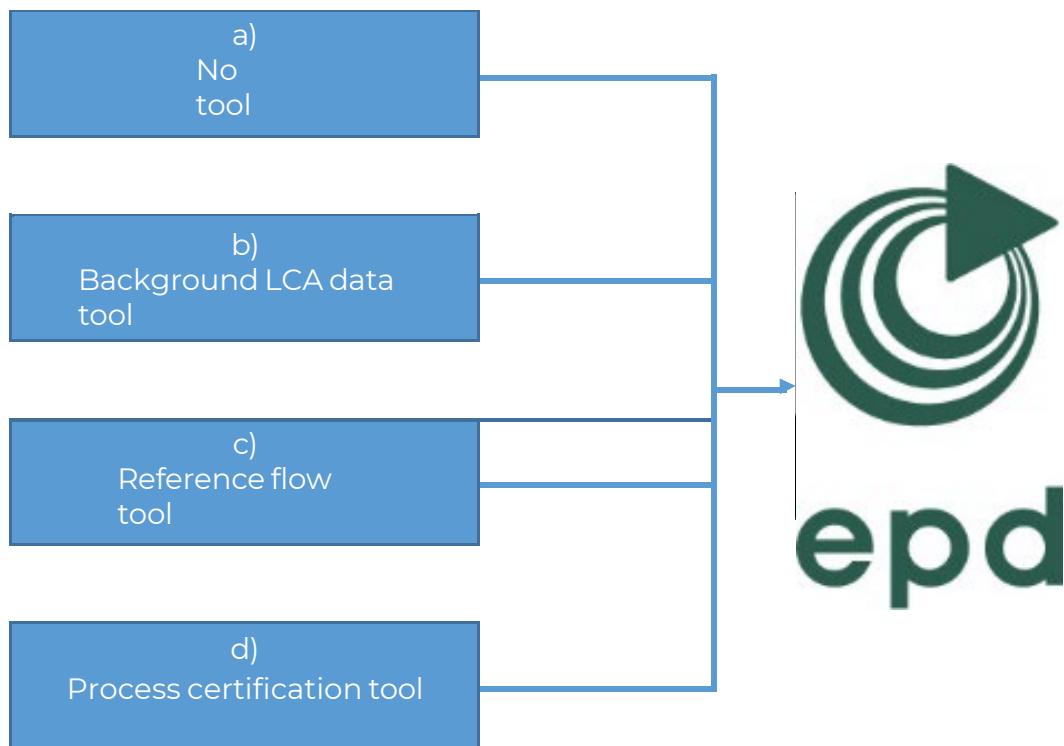


Figure 1: Four options for creating an EPD

2 A modular and step-wise approach

The three types of LCA tools outlined in Figure 1 allows companies to streamline their work in a stepwise approach, whereby the most ambitious companies will aim for the implementation of a process certification tool. An overview of the different types of tools is provided in Table 1.

Table 1. An overview of the different types of LCA tools considered by EPD-Global.

	LCA restrictions	Internal competence	Outcome
Background LCA data tool	Fixed and verified LCA data and EPD-template	Production and product knowledge	EPD with pre-qualified background data and independent verification of each EPD
Reference flow tool	Fixed and verified LCA data and EPD-template	Production and product knowledge	EPD generator with independent review of each EPD
Process certification tool	None	As above and LCA expert	EPD generator with third party review of the process

The common Plan-Do-Check-Act (PDCA) cycle for all tools supports the working process outlined in Table 1. The PDCA cycle includes several processes that have to be implemented, see Table 2. These processes are common regardless of which LCA tool is chosen, and thus form expandable modules that allows the user of the system to build upon from a background LCA data tool, and expand it to a reference flow tool and finally, if needed, run the system as a process certification tool.

Table 2: An overview of the common PDCA cycle for the expandable modular approach

Plan	Do	Check	Act
<i>All tools</i>			
Develop: <ul style="list-style-type: none"> • A generic LCA report • A generic EPD template • A user guideline for LCA database validity And, define internal functions with defined responsibilities and competency requirements during the EPD developing process. The process owner shall be named, and a flow chart drawn and established. If knowledge is outsourced, (such as the LCA DB) a support agreement is also required	<ul style="list-style-type: none"> • Calculate a LCA • Produce the EPD 	<ul style="list-style-type: none"> • Perform a review of each EPD 	<ul style="list-style-type: none"> • Make improvements to the EPD if required • Make improvements to the database if required • Make improvement to the guidelines if required • Publish the EPD
<ul style="list-style-type: none"> • Implement a log book 	<ul style="list-style-type: none"> • Maintain the log book 	<ul style="list-style-type: none"> • Maintain the log book • External review on a yearly basis may be required 	<ul style="list-style-type: none"> • Maintain the log book
<i>Additional requirements for the reference flow tool</i>			
<ul style="list-style-type: none"> • Develop a user guideline for handling and maintaining the bill of material or recipe 			
<i>Additional requirements for the process certification tool</i>			
<ul style="list-style-type: none"> • Develop a user guideline for handling aspects and functionalities in the tool that are not covered by the other requirements given in the underlying tools specified above • Implement the EPD tool in a management system 			

Different audits are required for the different types of LCA tools and for the different processes or modules in the system:

- Background LCA data tool, annual requirement: Review of the logbook by an approved verifier, in accordance with the checklist for LCA tools.
- Reference flow tool, annual requirement: Independent third-party verification of a test EPD, in accordance with Checklists B and C.
- Process certification tool, annual requirement: Independent third-party verification of a test EPD, in accordance with checklists A, B and C.

Roles and stakeholders:

- EPD owner: Company manufacturing the product and owning the EPD.
- LCA expert: Internal or external to the EPD owner.
- Verifier: Approved by EPD-Global.
- Reviewer: Independent internal or external reviewer, with specific tasks (e.g. check the BoM and EPD against a checklist for the reference flow tool). Independence must be documented.
- EPD-Global: Registering of EPDs.
- Technical committee: Approval of EPD tools. Approval of verifiers.

2.1 Specifications for the different types of LCA tools and working processes

2.1.1. The background LCA data tool

The 'background LCA data tool' is the first step in simplifying the EPD creation process by standardising the creation of the underlying LCA for the company that has the goal of publishing a number of EPDs that are more or less founded upon the same raw materials. The core processes require specific data that typically varies dependent on what kind of product is delivered and subject for an EPD, see Figure 2.

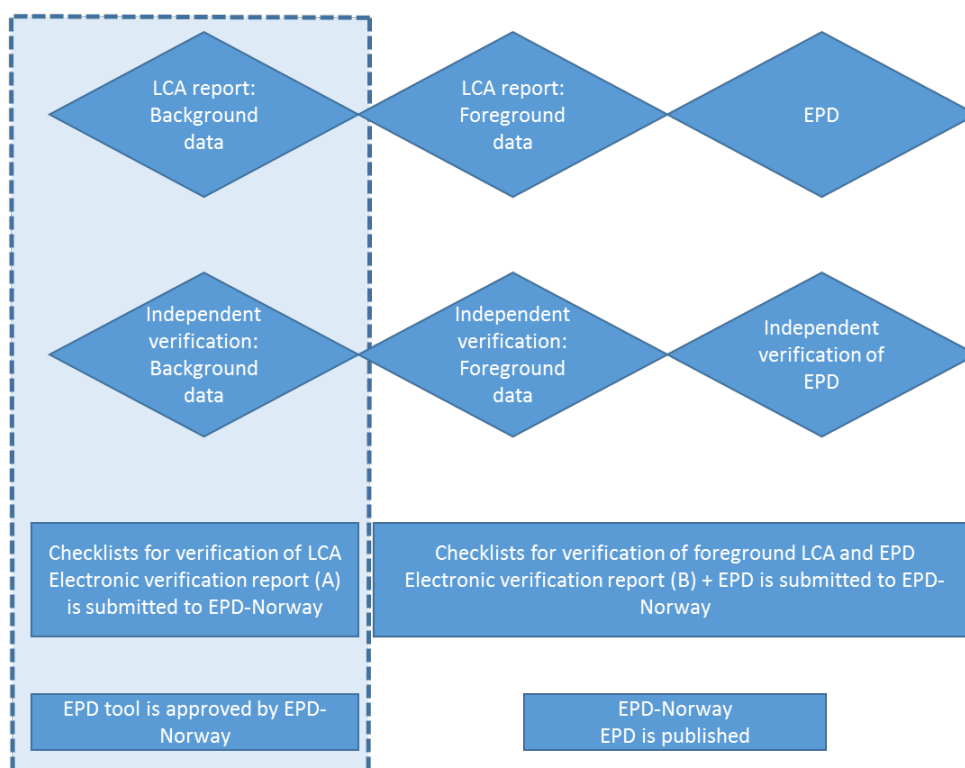


Figure 2: Background LCA data tool

This approach means that each EPD requires a life cycle inventory (LCI) for the core processes that has to be verified for each EPD created, but the upstream background data are pre-qualified, since they are already reviewed and approved by an approved third-party verifier. The reviewed upstream data sets create a common database covering all upstream data needed for several products from the same producer or construction works from the same company.

The background LCA data tool requires an initial review by an approved third-party verifier. This verification will be valid for a period of three years. If core LCA data are updated on an annual basis, then the period of validity can be extended to up to five years. If updates are required to use the database during this period, e.g. if a background data is missing, changed or fails to meet the acceptable time limit of 10 years, a supplementary verification on this matter is required. A logbook needs to be established for the LCA data tool, where all changes can be traced so that a third-party approved verifier can approve each change as and when they occur. The resulting EPD from a LCA data tool is verified as an ordinary EPD, using verification checklist B.

2.1.2 The reference flow tool

A reference flow tool' is an extension of the 'background LCA data tool' and is applicable if the outcome from the tool covers the full LCA reported in the EPD. The reference flow (ISO 14040) defines the scope of the full LCA, namely the processes and amounts used. The reference tool is hereby divided into two types:

- Bill of material (BoM) + production processes, typically describing an assembly product
- Recipe + production processes, typically for a single product.

The LCA for an EPD may include a BoM or a recipe or both. Both the BoM and the recipe approach include a need to map each resource or process in the BoM with processes from the LCA database. This so-called cross reference work must be documented and reviewed, see Figure 3.

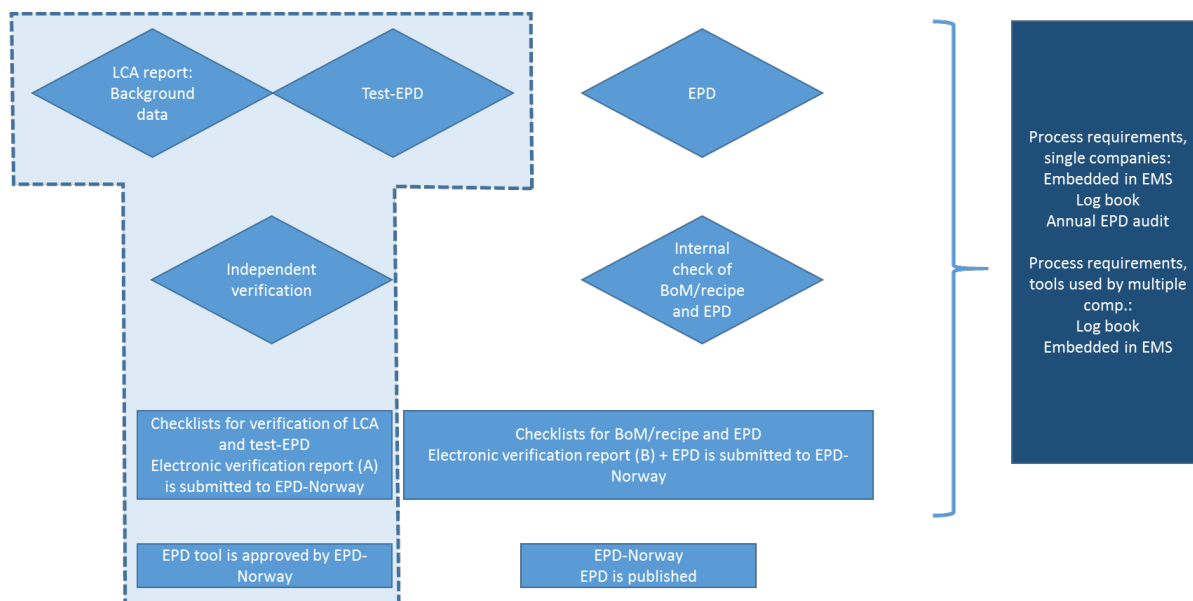


Figure 3: Reference flow tool

The BoM approach (as defined above) includes flexibility and accounts for different reference flows mapped in the LCA database, while a recipe (as defined above) has a fixed mapping between the reference flow and the LCA data. Note that the recipe approach may be handled with the parameter functionality implemented in different LCA software but can also be found on a simple spread sheet or any application suitable for this work.

Inputs and outputs from the manufacturing processes (e.g. energy use and wastes) shall also be included in each approach, with reference flows mapped to the production processes. Where it is not possible to avoid allocation between co-products, the provisions in the applied PCR shall be followed.

To generalise the use of these two alternatives, the BoM is typically suitable for describing an assembly product (e.g. a piece of furniture, a building etc.) that consist of different products that are assembled to a final product in a manufacturing step (i.e. often with limited impact compared to the upstream impacts). The recipe approach is typically used in a manufacturing process whereby the same raw materials are used, but mixed differently batch wise for various individual products (such as concrete, asphalt or paint etc.).

The 'reference flow tool' utilises a 'background LCA data tool'. This means that the upstream data is pre-qualified for the LCA. The requirements valid for the "background LCA data tool" are therefore also valid here. Nevertheless, the initial mapping between the LCA data in the tool and the BoM or the recipe requires an additional review performed by an approved third-party verifier. This initial mapping review will be valid for a period of five years. A logbook is required to document updates as and when they are performed. In addition to the verification of the tool, an independent reviewer shall have the following tasks:

- In the case of the BoM approach, the independent reviewer needs to check the mappings performed (since it varies from EPD to EPD) and check the resulting EPD. However, the review work is more limited compared to a traditional EPD verification. By running the 'reference flow tool', the quality of the EPD is always verified by an independent reviewer.
- In the case of fixed mapping structure such as in the recipe approach, the background LCA will be pre-qualified when running the tool. A very limited review is therefore needed by an independent reviewer in order to accept and submit the EPD to EPD-Global.

The independent reviewer shall have production and process knowledge but may be either an internal or external reviewer to the owner of the tool (external: e.g. an approved user in a similar company or in an industry organisation).

The 'reference flow tool' can be developed either by a single company or by multiple companies (e.g. industry organisations). Tools that are used by multiple companies will lead to comparable EPDs that reduce the possibility for systematic error in the use of the tool within one company. An annual EPD audit is required to ensure the quality of the EPDs. This is an ordinary verification of one EPD per year (random sample). EPD-Global may perform additional tests if needed.

The final EPD approved by the reviewer will be submitted to EPD-Global.

If the company wants to publish EPDs without a third-party review for each EPD, then the 'process certification tool' is recommended.

2.1.3 The process certification tool

The goal of a process certification tool is to implement a management system that allows the company to internally approve and issue new EPDs for registration. This approach will facilitate for increased implementation of environmental/quality management systems in many companies and facilitate this work to establish robust internal follow-up routines for the verification of EPDs from LCA tools. Good internal routines will make the collection and conversion of company-specific data for EPDs using the tool more rational and less expensive compared to a full LCA study, see Figure 4.

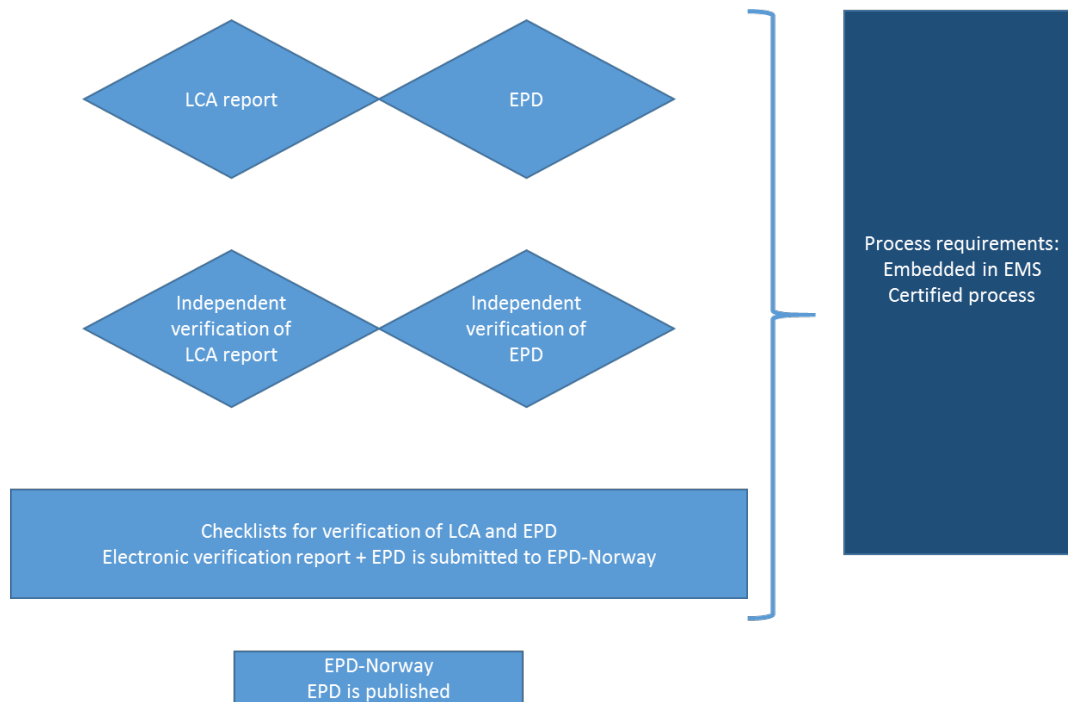


Figure 4: Process certification tool

The 'process certification tool' compared to the other tools adds management requirements based on the well-known Plan-Do-Check-Act (PDCA) cycle. The four phases in the Plan-Do-Check-Act Cycle involve:

Plan: Identify and analyse the problem.

Do: Develop and test a potential solution.

Check: Measure how effective the test solution is and analyse whether it can be improved in any way.

Act: Implement the improved solution fully.

An issue with LCA is that it is hard to foresee all eventualities and ensure that all inputs and outputs are correctly documented. A process certification tool requires a clear structure. Any changes made require third-party approval.

The process certification tool is the most qualified way for a company to produce several EPDs and frequently update them. This approach facilitates the use of other tools established by EPD-Global, e.g. related to digital EPDs. This structure also supports the company to implement EPDs systematically.

In both cases, the decision is communicated in writing from EPD-Global.

EPD-Global Digi complaint:

Can EPD-Global Adm. solve the complaint?

- ✓ Yes, EPD-Global Adm. responds in writing and make necessary actions if required.
- ✓ No: Escalate to relevant EPD-Global IT service provider. If the complaint is valid, the EPD-Global Adm. responds and effect necessary actions if required. If the complaint is not valid, the EPD-Global Adm. informs accordingly.

Financial Complaint:

Can EPD-Global Adm. solve the complaint?

- ✓ Yes, EPD-Global Adm. responds in writing and make necessary actions if required.
- ✓ No: Escalate to Financial service provider – NHO. If the complaint is valid, the EPD-Global Adm. responds and effect necessary actions if required. If the complaint is not valid, the EPD-Global Adm. informs accordingly.

Other Complaint:

Can EPD-Global Adm. solve the complaint?

- ✓ Yes, EPD-Global Adm. responds in writing and make necessary actions if required.
- ✓ No: Escalate to, depending on the issue, NHO Service Provider, EPD-Global Technical Committee or EPD-Global. If the complaint is valid, the EPD-Global Adm. responds and effect necessary actions if required. If the complaint is not valid, the EPD-Global Adm. informs accordingly.

Internal Complaint & Improvement:

By Internal Complaint & Improvement we understand “Internal Control” and reflects reporting of errors and/or proposals for improvement. This is initiated by EPD-Global.

Can EPD-Global Adm. solve the complaint & proposal for improvement?

- ✓ Yes, EPD-Global Adm. responds in writing and make necessary actions if required.
- ✓ No: Escalate to, depending on the issue, NHO Service Provider, EPD-Global Technical Committee or EPD-Global. If the complaint is valid, the EPD-Global Adm. responds and effect necessary actions if required. If the complaint is not valid or the proposal for improvement is not implemented, EPD-Global Adm. informs accordingly

3 Close Complaints:

For all complaints, EPD-Global communicates in writing the result of the complaint and closes the case. EPD-Global goal is to handle, respond and close complaints within 4 weeks.

For complaints which must be escalated, the handle, respond and closing time might be longer due complexity of the complaint. In this case, EPD-Global will inform the complainer about the status and development of the complaint regularly and minimum every moth.

If the complainer does not accept complaint handling, the EPD Administration will escalate the complaint to the EPD-Global Board for discussion and decision. In this case, EPD-Global informs the complainer about the decision not EPD-Global Board. The decision of the board cannot be appealed.

