epd-norge

Global program operatør

General Programme Instructions

for The Norwegian EPD Foundation

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Innhold

INTRODUCTION

This document constitutes the General Programme Instructions of the Norwegian EPD Foundation/EPD- Norge. This document and its appendices represent the main technical document of the Norwegian EPD Foundation/EPD-Norge 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-Norge, General Programme Instructions 2024. Version 4.0 dated 2024.09.18.

For permission requests, please write to the Norwegian EPD Foundation/EPD-Norge at the address mentioned below. Please also contact the Norwegian EPD Foundation/EPD-Norge for comments and/or feedback.

Revision log 2024-09-18
- Update on the organizational structure of EPD-Norge
- 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-Norge (hereafter referred to as *EPD-Norge*) 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-Norge 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-Norge shall contribute to the creation of standardized, verified, and life cycle-based environmental information, and promote automation and digitalisation.

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

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

EPD-Norge shall – when accreditated - 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 activites. Strict focus is set on impartiality, fairness, confidentiality and competence.

EPD-Norge shall support and participate in ECO Platform[1] work and activities, with focus on international PCR harmonisation and standardisation.

The scope of the EPD-Norge 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-Norge 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-Norge is structured according to the following activities:

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

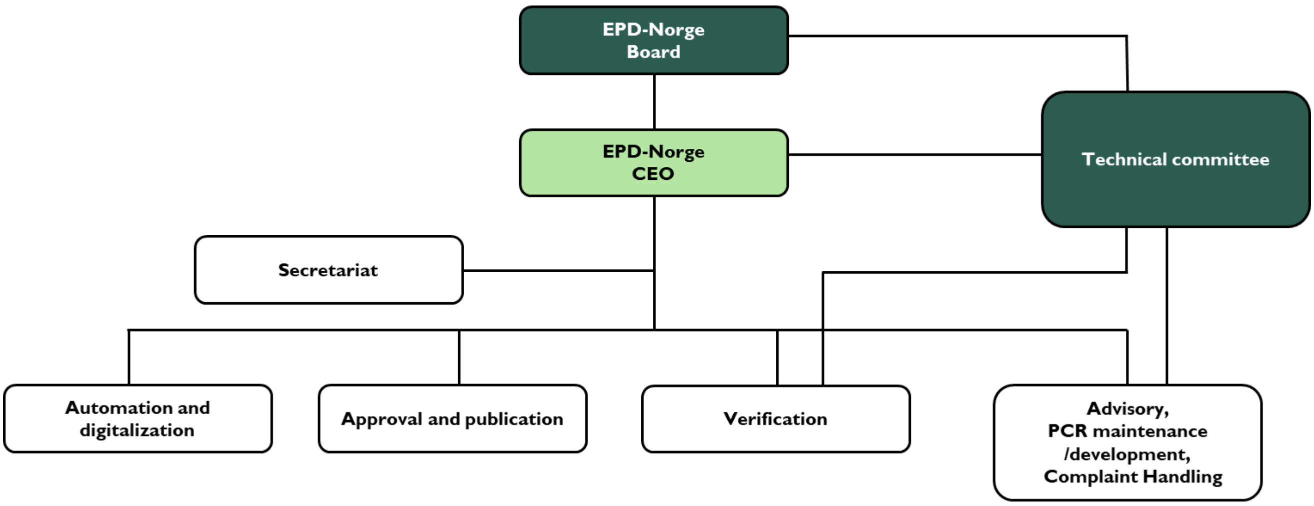

Figure 1: A flow chart showing the organizational structure of the EPD-Norge programme.

2.1 Administration

EPD-Norge is the programme operator for Type III environmental declarations in Norway. EPD-Norge 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-Norge 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-Norge 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-Norge.
- 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-norge.no 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-Norge 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-norge.no 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-norge.no.

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

2.1.5 The website

The website (www.epd-norge.no) 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-Norge 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-Norge`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-Norge will submit a registration form to the EPD owner/company. When the registration form is returned to EPD-Norge, the EPD will be published on www.epd-norge.no.

The EPD will remain on the website during the validity period or until the owner asks for revocation. EPD- Norge 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-Norge logotype, EPD number, expiry date and signature are considered as a verified and registered EPD.

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

When using EPDs from EPD-Norge 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-Norge 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-Norge 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- Norge will on request provide information on transition periods. Significant transition periods will be published on www.epd-norge.no.

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

As a general rule, unless the PCR is withdrawn by EPD-Norge, 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-Norge 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-Norge. 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-Norge

The convenor shall:

- Ensure (in cooperation with EPD-Norge) 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-Norge 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-Norge 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-Norge.
- 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-Norge for approval.
- Fill in the registration form and send it to EPD-Norge.
- Pay the annual fee and registration fee to EPD-Norge.
- Give notice to EPD-Norge 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-Norge 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-Norge. 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-Norge. 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 opeartor, EPD-Norge are obliged to follow ECO Platform guidelines[2].

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.

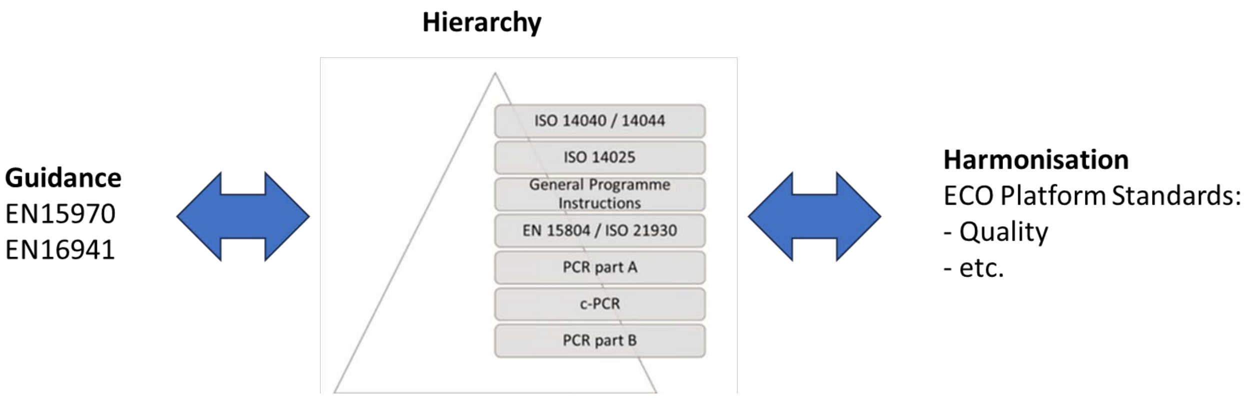

Figure 2: The structure of PCRs and other normative references for EPDs

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-Norge, this occurs through the stakeholders of the product group who participate in the development of a PCR.

As part of the hearing process, EPD-Norge 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-Norge shall seek to harmonise PCRs in different product areas and with other international

[2] Our documents - Eco Platform en (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-Norge 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-Norge 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-Norge 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-Norge 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-Norge 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 15942[3]"

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.

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

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-Norge

The validity period for an EPD registered with EPD-Norge 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-Norge 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

production at the company.

4.4 Updating the EPD

The EPD owner is obliged to update the EPD if one or more of the core environmental impact categories, summed over the included life cycle stages, increases by more than 10% from when the data were published (e.g. due to a change in the production process, energy source, material use or supplier selection etc.). Core environmental impact categories are the mandatory indicators as defined in the relevant product category rules. See Annex A section 6.2 for an overview of core environmental impact categories. A company or organization might also request to update an EPD because of significant improvements in the environmental performance of the product.

If there is a need for adjustments to the EPD, the verifier must submit a verification report (online report) to EPD-Norge with the adjusted EPD enclosed. It is not necessary to carry out a full LCA, only the changes affected by the adjustment need to be verified. When updating an EPD, the same requirements shall be satisfied as when the original declaration was made.

An announcement about the changes made in the EPD (the verification report) shall be sent by the verifier to EPD-Norge.

In addition, the EPD owner may make editorial changes to a published EPD, such as the change of a logotype or spelling corrections, by sending the revised EPD directly to the Secretariat without verification.

4.5 What types of EPDs exist and how are they different?

There are two types of EPDs, EPDs for a specific product and EPDs for an averaged product. Below is a brief description of these two types. In addition, it is possible to create a prospective EPD for recent and coming products, but these have limited comparability. For all variants it is recommended to include relevant conversion factors and scaling factors.

A specific product EPD:

-EPD for a product: This is an EPD for a specific product from a manufacturer or supplier, with one or more representative scenarios for transportation, installation, use and disposal. The product can be manufactured in several different factories but comes from one supplier. The EPD is registered and published at EPD-Norge.

-Project specific EPD: This is an EPD for a specific product from a manufacturer or supplier for one specific customer and/or project. The main difference here is that the project EPD is not necessarily registered and published publicly with EPD-Norge as it refers to an already registered and published EPD from a manufacturer and has been prepared for a specific customer and/or project. This is a common procedure for when there may be some variation for each delivery, e.g. for different concrete mixes or when the customer wants specific transport data (A4) and construction site activities (A5) detailed. It is good practice to specify the variations taking place in the environmental performance of the project specific EPD compared to the published and registered EPD.

-EPD owned by trader: EPD representing a product which is sold under different brand names, e.g., by a trader, retailer, importer, or similar.

- Mirrored EPD: If brands wish to have a specific EPD with the brand name, the EPD is possible to be mirrored. A mirrored EPD contains the same technical product description and LCIA results as the original EPD, but with different logo/branding/EPD owner.

- Mirrored EPD with modified scenarios: This is as above, but with the possibility to change scenarios in life cycle modules A4-C4. This may be relevant in case the product for example is sold in a different market than the original EPD. These changes must be third-party verified.

For mirror EPDs, the EPD owner shall establish a procedure to track the mirrored EPDs and inform the traders of any changes made to the original EPD, so that also the mirror EPDs can be updated.

An average EPD:

-Common EPD for multiple products: This is an EPD which represents the average of a cross-section of several similar products (e.g. Different surface treatments, different product thicknesses, etc.) from a supplier or manufacturer. The environmental performance of the products included cannot vary more than
+/- 10% for GWP-total in the sum of life cycle stages A1-A3 excluding biogenic carbon in product and packaging (this corresponds to the indicator GWP-IOBC/GWP-GHG, as described in Appendix A, section 6.2). Otherwise EPDs must be developed as described above. It shall be clearly stated in the EPD which products are included.

-Industry EPD for one product: This is an average EPD whereby several manufacturers agree to declare the same type of product. There are no requirements as to how much variation there is between manufacturers, so long as the product is the same. Good practice involves specifying the range of variations for the various environmental impact categories. It shall be clearly stated in the EPD which products are included.

- Industry EPD for multiple products: As above, however the variation between the products cannot vary than
+/- 10% for GWP-total in the sum of life cycle stages A1-A3 excluding biogenic carbon in product and packaging (this corresponds to the indicator GWP-IOBC/GWP-GHG, as described in Appendix A, section 6.2). Note that the geographical spread of manufactures and or production sites can range from a geographical area within a country to several countries. One could say that an average EPD would "reward" those manufacturers/production sites with the poorest results for environmental indicators and "punishing" the best. Moreover, average EPDs will motivate manufacturers to improve their own manufacturing processes. It shall be clearly stated in the EPD which products are included.

- Worst-case EPD: This is an EPD for multiple products where the variation is too large to be included in an average EPD of the types described above. In the worst-case EPD, the worst result for each indicator and each life cycle is included in the EPD, providing a conservative estimate of the environmental impact of the product range. This can for example be for a manufacturer with several variants/configurations of similar products. If the GWP variation is too high for other types of average EPD as described above, these may then be declared as a worst-case EPD. It shall be clearly stated which products are included in the worst-case EPD. Although worst-case EPDs may be useful in some cases, they have limited comparability. It is therefore generally recommended to use specific EPDs or other types of average EPDs.

A prospective EPD:

Prospective EPDs (P-EPD) are intended for products which either are recently on the market or soon will enter the market. Prospective EPDs are intended for products where 12 months of production data is not available and therefore have higher uncertainty and limited comparability. The prospective EPD shall not be valid for longer than one year and shall be reviewed after latest one year of production data is available. It shall be clearly identified in the EPD that it is a prospective EPD and the variability and uncertainty of the limited set of data it is based upon. P-EPDs can only be created with explicit permission from EPD-Norge. It is important that the EPD user is aware of the main differences between the respective EPD types and uses EPDs accordingly.

Conversion and scaling:

Conversion factors, scaling factors, and scaling tables may be included in the EPD, if they are relevant for the specific product and product category. These include:

- Conversion factors: These facilitate conversion between different units (kg, m2, unit, etc.). It is recommended to include conversion factors that are relevant and useful for the EPD users.
- Scaling factors: Linear scaling between product variants (e.g., homogenous insulation products).
- Scaling tables: Scaling between product variants (e.g., variations in recipes for chemical products) and product configurations (e.g., variations in product configuration such as windows, chairs, etc.).

Scaling factors/tables and variation: The +-10% rule for GWP-total in A1-A3 (excluding biogenic carbon in product and packaging) does not apply to the scaling factors and scaling tables. Limitations of the applied method shall be clearly stated. See Annex A section 9.6 for further requirements and guidelines for conversion and scaling.

An approved EPD (excluding project specific EPDs) will always be found on the programme operator's website, for EPD-Norge see www.epd-norge.no . Please contact EPD-Norge at post@epd-norge.no if you are unsure whether or not an EPD is valid.

4.6 Withdrawal of an EPD

Upon expiry – EPDs will be removed from EPD-Norge's website. The EPD owner is responsible for updating the EPD in time. Also, EPD-Norge may withdraw an EPD if fees are not paid in time, or if the EPD contains errors that are not corrected by the EPD owner. A withdrawn EPD may no longer be used as it is no longer administered by a programme operator and thus does not fulfil the requirements of ISO 14025.

EPD-Norge shall maintain a list of withdrawn EPDs.

4.7 Feedback or complaints

It is possible to contact EPD-Norge with feedback or complaints about registered and published EPDs, other documents published by the programme or the appointment of individual verifiers. Such a complaint:

- must be written and sent to: post@epd-norge.no,
- not be anonymous,
- include a clear description of the scope and nature of the complaint, and
- include a reference to the rule in the General Programme Instructions, ISO 14025 or other standard or reference that refers to the topic of the complaint.

EPD-Norge must respond to any complaints as soon as possible and contact the organisations that are affected. EPD-Norge may temporarily withdraw the document in question from www.epd-norge.no pending investigation or corrective action by the document owner. If corrective action is needed but not taken within a reasonable time, then the affected document or information will be withdrawn by EPD- Norge.

5 The verification system

EPD-Norge's verification system for Type III environmental declarations shall ensure that verification is carried out according to ISO 14025, section 8.1 "Procedure for review and independent verification" and the GPI.

Independent third-party verification of EPDs shall be in accordance with the EPD programme, relevant product category rules (PCR), and relevant ISO-EN-NS standards. This includes verification of new EPDs and follow-up audits. Verification of the EPD according to ISO 14025 is divided into two parts:

- Independent verification of data according to ISO 14025, section 8.1.3.
- Independent verification of Type III environmental declarations according to ISO 14025, section 8.1.4

Level of Assurance refers to the degree of confidence that the verification body provides to users of the EPD that the verified information (the claim in the EPD) is free from material misstatements and meets the specified requirements. The level of assurance (the degree of confidence in the claim) shall be at the reasonable assurance level, which entails a high level of confidence, but does not guarantee absolute certainty.

An approved verifier shall carry out both parts of the verification process, and the same person can perform both parts.

5.1 Requirements for carrying out verification

Requirements for carrying out independent verification are crucial for maintaining the acceptance and trustworthiness of EPDs in the market.

In EPD-Norge, there are two possible ways to fulfil these requirements:

- Verification shall be carried out under the auspices of the programme operator in the case of individual verifiers. This is valid in the case of internal verification.
- Verification shall be carried out by organisations officially designated by EPD-Norge to act as accreditation bodies whereby the verifier is a certified body. This is valid in the case of external verification.

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

5.2 Independent verifiers

Independent verifiers shall examine the EPD with emphasis on:

- Assessing the underlying data used in the LCA calculations.
- Checking how LCA-based calculations are carried out and that they are consistent with the calculation rules outlined in the PCR.
- Ensuring that the presentation of the EPD follows EPD-Norge's format.
- Reviewing other additional information included in the EPD and ensuring that this information is included in the LCA report.

The verifier shall come from a third-party and have no conflicts of interest due to their position or belong to the same organisation as the owner of the EPD. The verifier should not belong to the same organisation that conducts and prepares the LCA report and the EPD.

The verifier shall not provide consultancy in the same projects which are subject to verification 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- Norge, 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-Norge. 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- Norge and announce the changes.

EPD-Norge shall be notified of violations of rules that apply to the use of EPDs in information and marketing. EPD-Norge 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-Norge 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-Norge shall maintain a list of revoked EPDs.

7 Handling complaints

EPD-Norge has the following procedures for handling complaints:

- EPD-Norge 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-Norge. 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-Norge may, at its discretion, decide to revise general programme instructions.
The Board of EPD-Norge 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 Boatd of EPD-Norge,. Oslo, September 18th 2024

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General Programme Instructions

for The Norwegian EPD Foundation

Appendix A

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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.

4 Allocation rules

The allocation rules are described in ISO 14044. Additional guidance or requirements may be introduced in the PCR. In cases where the production process includes several products, allocation rules should be established for the different products.

The following rules are recommended:

- Multi output: allocation based on physical relationships such as mass and energy.
- Multi input: allocation based on physical relationships such as mass and energy.
- The "polluter-pays principle" shall be followed.
- Allocation of flows for materials inherently carrying properties such as energy content, elementary composition (e.g. biogenic carbon content) shall reflect the physical flows, meaning:
    - No virtual allocation / pooled resources
    - No mass balance except electricity and biogas used as energy. See ECO Platform LCA calculation rules for detailed requirements.

5 Data quality

- Specific data should be based on production processes and transport. If other types of data are used, this shall be described and justified.
- Generic data may be used in cases where these are more representative, e.g. the purchase of commodities on a spot market or during the use or waste phases. Generic data may also be used if there is no access to specific or average data and if these do not significantly affect the result. The PCR may contain directions on which generic data can be used.
- The data should represent an annual average.
- Data regarding impacts from the use phase should be based on documented tests and recommendations for the proper use of the product.
- Data processing for all calculations shall be clear and understandable.
- Commonly used terms and expressions should be used to describe the various types of resources and wastes.

In connection with data collection, an assessment of the data should be carried out in terms of the following:

- Coverage
- Accuracy
- Reproducibility
- Uncertainty
- Completeness check
- Sensitivity check
- Consistency check

5.1 Reporting LCA data

The LCA report shall include the following:

- System boundaries and allocation (if any)
- Data collection (collection processes, collection forms and specific/generic data with a reference to documentation)
- Validation of data (internal quality assurance procedures and procedures for monitoring, correcting and identifying missing data)

- Results (calculation methods divided into manufacturing and use for the different parts of the life cycle)
- Classification of the use of resources
- Characterisation in terms of potential environmental impact
- A description of the technical system (system type, geographical location and the subsystem functions)
- A general description of data collection (purpose, reference units, who is responsible for data acquisition and system boundaries against nature and other technical systems in relation to time and geographic coverage), allocations, assessment of data quality and relevance of data, performed checks on the data and various administrative tasks (publications and other records)
- A detailed description of the data collection (time period for data collection, methodology, description of methodology, identification and assessment of the significance of the lack of data and the management of missing data, references and other information)
- Presentation of the data (report on all numerical data for input and output and their relationship to the reference flows divided into the categories of data that are selected for the LCA study)

Quality assurance of data and data management will be an important part of the LCA report that the verifier should have access to. Data management of all calculations should be transparent and understandable.

The LCA report shall give a complete picture of the implementation of the LCA and its results, and it should follow the LCA report template that EPD-Norge has prepared. It should also be specified which PCR have been used. Any deviations from the General Programme Instructions and PCR used shall be documented and justified.

Every subsystem shall be explained at the level of data resolution available when the LCA was conducted. Specific data from the production facility or similar entity shall be documented. Generic data should be documented at the level that was available to the person performing the LCA. Generic data for building materials shall be based on EN 15941:2024 (Sustainability of construction works - Data quality for environmental assessment of products and construction work - Selection and use of data).

5.2 Design of the LCA report

The LCA report shall be designed so that independent verification can assess the quality and relevance of the underlying data. This can be done with a standardised LCA report template, obtained from EPD- Norge.

Data included in the LCA shall be documented in a transparent manner. The same requirements apply to all types of data (specific or generic) and methods of collection (personal contacts, questionnaires, literature etc.).

The results from the data collection shall be indicated in tables showing how the documentation of parameters for different life cycle stages have been carried out. The report should also show how the data together with the characterisation factors have been used to calculate category indicators.

6 Evaluation of environmental impact

The use of resources and their associated emissions differ according to their potential environmental effects within different environmental impact categories.

6.1 Use of resources

The production part of an approved EPD consists of the parts of the life cycle assessment that include the life cycle phases for extraction and refinement of raw materials, energy extraction, and production of goods.

The following information shall be included in an EPD:

Renewable primary energy used as an energy carrier (fuel). This includes all first-time use of biological materials used as an energy source. This includes both hydropower and wind power.

Renewable primary energy used as material. This includes the first-time use of biological materials (i.e. wood, hemp etc.).

Non-renewable primary energy used as an energy carrier (fuel). This includes all materials such as oil, gas, coal, uranium etc.

Non-renewable primary energy used as materials. These are primary resources with an energy content – such as oil, gas and coal – that later become products like plastic materials or animal feed.

Secondary materials. These materials are recycled from previous use or waste (i.e. scrap metal, broken concrete, broken glass, plastic etc.) and are used as material. This can include both renewable and non- renewable materials with or without energy content.

Renewable secondary fuels. These include renewable materials with energy content that have been used previously or are defined as waste and are used as energy sources (i.e. biomass residue, waste wood etc.).

Non-renewable secondary fuels. These non-renewable materials with energy content have been used previously or are defined as waste and are used as an energy source (i.e. solvents, tires etc.).

Net consumption of fresh water.

6.2 Environmental Impacts

Emissions are expressed in terms of characterisation factors that indicate the effect of different emissions within different environmental impact categories. The characterisation factors that are to be used for the different impact categories are given in EN 15804:2012 + A2:2019. These are the default impact categories and characterisation factors, but non-construction PCR may deviate from these.

Indicator	Unit
GWP - total	kg CO2 eq
GWP - fossil	kg CO2 eq
GWP - biogenic	kg CO2 eq
GWP - luluc	kg CO2 eq
ODP	kg CFC11 eq
AP	molc H+ eq
EP- freshwater	kg P eq
EP -marine	kg N eq
EP - terrestrial	molc N eq
POCP	kg NMVOC eq
ADP-MINERALS & Metals	kg Sb-Eq
ADP-fossil	MJ
WDP[2]	m^3

In addition to the indicators given in the table above, GWP IOBC (Instantaneous oxidation of biogenic carbon) needs to be declared in the EPD. The GWP-IOBC/GHG indicator includes all contribution to GWP except that emissions and uptake of biogenic carbon, including temporary stored in products and packaging (as in Table 9 in EN 15804:2012+A2:2019), which is set to zero (i.e. direct balanced out while other biogenic substances like methane etc has a characterisation factor and therefore accounted for as greenhouse gases). This indicator is often the default in LCA-software in the past and has in the EN 15804 standardisation process been known as «+/- 1 kg biogenic CO2 = 0 kg CO2e, or just 0/0». In published standards, it is described as type 2 in EN 16760. Reference for its origin: https://cbmjournal.biomedcentral.com/articles/10.1186/s13021-019-0129-5

6.3 Environmental information describing end of life

The end of life shall be divided into waste and output factors.

- Waste:
  - Hazardous waste
  - Non-hazardous waste
  - Radioactive waste
- Output factors:
  - Components for reuse
  - Materials for recycling
  - Materials for energy recovery
  - Exported electricity
  - Exported thermal energy

Materials for energy recovery shall not include materials for incineration. Waste incineration is a method of waste management that is allocated within the system's boundaries. Waste incinerators have lower energy efficiency than power stations using secondary fuels. Materials for energy recovery shall be based on a thermal efficiency of no less than 60% to 65%.

6.4 Additional environmental information

EPDs for construction products shall include transparent reporting in the EPD is solved by stating how much electricity with the use of GoO is included in the foreground processes modelled in A1-A3, providing a simple way to calculate GWP values using both location based electricity mix and GO as well as consequences for the results. It shall therefore be stated in the EPD under section "Additional requirements". This is incorporated into

the templates for EPD, LCA report and verification checklists and can be found on the download pages of

EPD-Norge. Alternatively, an additional set of result tables using GOs could also be supplied in the additional requirements section.

EPDs may contain additional information that does not come from the LCA calculation. This can be a complete description of the use of the product or disposal of the product, including the following:

- Users guide for proper use of the product such as reducing energy and water consumption or how to extend of the service life of the product
- Maintenance and service guidelines
- Replacement procedures for vital parts for prolonging the service life
- Recycling information for the entire product or parts of the product
- Information on ways to reuse the complete product or parts of the product
- Disposal facilities

Relevant PCRs may provide possible additional information to be included in the EPD.

7 Assessment of the results

An evaluation of the results should focus on:

- Identification of the main contributors to the LCA results from the data collection.
- Assessment of the results, including control of completeness, sensitivity and compliance.
- Conclusions and recommendations.

8 Prerequisite for comparable products and services

The recommended range of variability should be a maximum of ± 10% of GWP total for A1-A3 of the results given in the EPD. Deviations from this basic rule should be justified. In some cases, it may be difficult and time consuming to identify all material and energy flows that are a part of a complete LCA. A straightforward LCA (a screening LCA) can make it easier to sort out the underlying data for each impact category, but this must not impede the summation of data in a system that describes the complete product stream.

Results from different LCAs can only be compared if the scope, calculations and presentation of results are the same. This is essential in the design of the background material that is included in an approved EPD. This is ensured by following the requirements in the PCR document in addition to the requirements set in ISO standards.

9 Information to be shown in an EPD

The purpose of the information in an approved EPD is to provide a comprehensive picture of the environmental properties of the declared product or service. An approved EPD follows the reporting format on EPD-Norge's website and should be structured and divided into the following main sections:

- General information (programme-related information)
- Manufacturer and verification
- Description of the product or service with a declaration of content
- LCA calculation rules
- Description of scenarios
- Presentation of the environmental performance
- Additional requirements

9.1 Programme-related information

The programme-related part of the EPD shall include the following information:

- The text Environmental Product Declaration and references to standards describing this programme
- The logo of EPD-Norge as specified in Appendix E (the Secretariat)
- The trademark
- The name "The Norwegian EPD Foundation"
- Registration (the Secretariat)
- Date of publication and validity (the Secretariat)
- The PCR document used as the basis for the EPD
- References to relevant websites or a QR code for more information about the product

9.2 Information about the EPD owner, organisation and verification

This part of the EPD shall include the following information:

- Name of the owner of the declaration (company name), contact person, company phone, company e-mail and website
- Location(s) in which the product is manufactured
- Description of the company, including information on certified management systems (e.g. ISO 9001–14001 certificates, EMAS, ECO-logo and ISO 26000)
- Functional unit and declared unit
- Organisation number
- Year of the LCA
- Verification and approval

General information about the manufacturer, product or service – in addition to general information about the company – may also contain relevant, specific information about the company. Valuable information for specific aspects concerning production processes may also be included.

9.3 Product-related information

This part of the EPD shall include the following information:

- Description of the intended use of the product
- Description of the product
- Product specifications (content declaration)
- Technical description of the product
- Market area
- Expected service life of the product

This part of the EPD shall include a content declaration and whether the product contains hazardous substances. It may also include information of a product-specific nature that the manufacturer wants to show (which is not included in the declaration on environmental performance) or information that customers and markets want.
Information on the proper uses and maintenance of the product, information about the service and information about what the user can do to reduce the environmental impact in the use of the product or service may also be included.

Other information that should be provided also includes the following:

- The manufacturer, supplier or wholesaler and their environmental work
- The manufacturing process (a flowchart)
- The content of the product
- The product's service life
- Material and energy flows
- The product or service's potential environmental impacts
- Maintenance and recycling
- Other valuable information of interest to the producer or business

The content declaration covers materials and substances to be declared. This includes specifications of materials and substances at all stages of the life cycle that may have negative impacts on human health and the environment. The content declaration should comply with the following for declarations intended for the Norwegian and European markets:

- Regulations on the Registration, Evaluation, Authorisation, and Restriction of Chemicals (REACH Regulation) implementing the REACH Regulation (EC) No 1907/2006, amendments to REACH regulations and associated legislation in Norwegian law.
- European Parliament and Council Regulation (EC) No 1272/2008 of 16 December 2008 on the classification, labelling, and packaging of substances and mixtures amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No. 1907/2006.

If applicable, a more detailed description of chemicals should be presented in a separate table that includes quantity and CAS numbers.

If a product is based on recycled materials, the manufacturer may give information in the EPD about the amount of recycled materials. In order to avoid misunderstanding about whether the materials can be considered as recycled or not, one should follow the guidance in ISO 14021 for self-declared environmental claims.

9.4 LCA calculation rules

This part of the EPD shall include the following information:

- Data Quality
- Allocation
- System boundaries
- Cut-off criteria

9.5 Scenarios and other technical descriptions

This part of the EPD shall include the following information:

- Transport scenarios
- Assembly/ construction phase scenarios
- Use phase (maintenance, repair, replacement, use of energy and water) scenarios
- End of life scenarios
- Gain and loads after end of life scenarios
- Other information

The use phase of a verified EPD consists of all the parts of the life cycle from the distributor to the customer and includes waste management. Information given here is of a general nature and is based on the assumptions and descriptions given in the scenarios.

The information in the use phase shall be based on the functional unit or the declared unit with options. Information given here shall be divided into the use of resources and emissions as in the production phase. Emissions shall be based on documentations and tests. Estimation methods and data sources must be provided. Information to be included in the use phase is of a product-specific nature, and this should be given in the PCR. A justification must be given if it is not possible to include all information required by the PCR in an approved EPD.

9.6 LCA results

This part of the EPD shall include the following information:

- Environmental impact
- Use of resources
- Waste
- Output factors

A presentation of the environmental performance should include information on resource use, energy use, emissions and waste generation. The methods used shall follow the international standards for LCA (ISO 14040 and ISO14044), and special consideration should be given to the mandatory reporting format for environmental impact categories.
Information from the company may include a recycling declaration or other information that the company wants to communicate.
A recycling declaration may include information about key aspects of the dismantling of products and the recycling of materials in the form of the following:

- Information on how best to recycle selected parts or the entire product. The declaration can, for example, provide information about how complex materials can best be broken down or information about the materials' melting points and energy values.
- Information on how the product (or parts of the product) can be recycled and how they are dealt with as waste.

EPD-Norge allows scaling factors and/or tables to be given in certain types of EPDs where this is relevant. Examples of these are:

- For products that scale linearly with thickness/weight/etc.: Scaling factors, such as x * thickness.
- For products that do not scale linearly, e.g., for insulation products with coating on one side:
    - Tables with scaling factors for GWP.
    - Conversion formulas.
    - Appendices with results for each component, which can be combined (e.g., two tables, one for the core and one for the coating).
- For products with variants/configurations:
    - Products with/without a material, such as windows with/without aluminum cladding: Two sets of results in EPD.
    - Components:
        - Appendices with results for various components, e.g., different types of armrests, etc.
        - Tables with results for different variants/configurations.

9.7 Specific requirements

This part of the EPD shall include the following information:

- Greenhouse gas emissions from the use of electricity in the manufacturing phase
- Content of dangerous substances, according to the EPD template
- Transport from the place of manufacture to a central warehouse, if module A4 is not declared
- Impact on the indoor environment, if relevant
- A carbon footprint declaration, if available

The presentation of environmental impacts shall describe the use of resources and emissions associated with the relevant product or service. In addition, the use of the product shall be described. All statements regarding the product must be verified.

10 Other Information

Providing other information in the declaration that is associated with the details in the declaration could increase the understanding of the EPD.

10.1 Special information as a basis for procurement

Industry and government can use the declarations as a basis for purchasing. In this context, there may be requests for specific details in the declaration. It should be possible to meet this extra demand in the EPD. For these details, the requirements regarding evaluation and approval are the same as for other information.

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Appendix B

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Appendix B - Competency, requirements and tasks for verifiers

1 Requirements for the independence and competency of verifiers

A verifier shall have no conflicts of interest due to their position or belong to the same organisation as the owner of the EPD. The verifier should not belong to the same organisation that conducts and prepares the LCA report and shall not have been involved in the implementation or preparation of the EPD. If the verifier and the person preparing the LCA report belong to the same organisation, then they should operate in separate units. Independence is ensured, for example, by accreditation according to ISO 17021, ISO 17065 or ISO 17029. If so, the alternative internal verification box shall be ticked in the EPD. An alternative is also possible if the independence of the verifier can be proven and that the procedures are in line with the requirements of ISO 14025.

Qualifications and training are essential to ensure the appropriate level of quality is achieved when verifying an EPD. EPD-Norge's goal is to have the highest level of quality that can be expected in the market and that can be mutually recognised by all practitioners.

To follow is a list of minimum competency requirements for verifiers:

- General knowledge of manufacturing and service industries as well as product-related environmental impacts and waste
- Knowledge of the processes and products for specific product category areas
- Knowledge of LCA and of the methods and standards for LCA work
- Knowledge of relevant standards in the field of environmental labelling, declarations and life cycle assessment, such as ISO 14040–44, ISO 14020, ISO 14025, ISO 14067 and specific product standards, such as ISO 21930 and EN 15804 etc.
- Knowledge of the EPD programme for independent verification and knowledge of the regulations and standards for the preparation of EPDs
- Knowledge of national regulations for the relevant countries
- Education at an academic level—or equivalent—within a technical or scientific area*
- At least four years of experience working with industrial environmental issues, of which the development and implementation of LCAs should account for a significant proportion*
- Completion of at least one LCA or preparation of an EPD during the past year*

* Documented in the verifier's CV

Through international cooperation with ISO and CEN, EPD-Norge will update an approved verifier list with their expertise and experience. This will be organised such that the approved verifier must go through regular updates from EPD-Norge that can take place as local courses or discussions and information in relevant networks. It is assumed that the verifier will maintain their professional knowledge.

2 Tasks for independent verifiers

The verifier's work with the EPD consists of a review of the LCA report to verify that it is in accordance with ISO 14025, section 8.1.3.

The following points should be checked:

LCA report	Checklist part A
First page	1 General information 4 Product description
2 Study goal	2 Study goal
2.2 Functional unit/declared unit	3 Functional unit/declared unit
2.3 System boundaries	5 System boundaries 6 Power mix 7 CO_2 certificates 8 Description of the system boundaries 9 Criteria for excluding inputs and outputs 11 Development of scenarios
3.1 Data collection procedures 3.3 Data sources 3.4 Data validation 5.3 Assessment of data quality	10 Data collection 12 Selecting data
3.2 Relevant quantitative and qualitative descriptions and calculation procedures of unit processes	14 Life cycle modelling information
3.5 Allocation principles and procedures	13 Allocation
4 Life cycle impact assessment	15 Parameters of the life cycle inventory analysis and life cycle impacts 17 Documentation of additional information
4.4 Value choices	15.2 Presentation of the parameters describing the environmental impact 15.3 Selection of correct characterisation factors
5 Interpretation	16 Interpretation
6 Critical review	
7 References	18 Documentation for calculating the reference service life

The verification of the data from the LCI, LCA, information modules and additional environmental information shall confirm:

- That they comply with a valid PCR.
- That they comply with ISO 14040 and ISO 14044.
- That they comply with EPD-Norge's general programme instructions for type III declarations.
- That the data includes coverage, accuracy, completeness, representativeness, consistency, reproducibility and reliability.
- That the LCA data have satisfactory credibility, quality and accuracy.
- The quality and accuracy of additional environmental information.
- The quality and accuracy of the basic information.
- How missing data are treated.
- That the data in EPD complies with the LCA report.

EPD-Norge has an electronic checklist to be used by the verifier for verification and reporting.

Part A of the checklist is used to ensure that the topics described in the LCA report are consistent with the requirements and guidelines of the reference provided in the checklist (ISO 14025, other standards or the PCR). Most items are compulsory, but some are optional. The verifier shall report any deviations from the requirements. If the item is in line with the requirements, then the verifier shall approve it, and the checkbox shall be marked “Done”.

Deviations that are noted shall be rectified by the person that has providing the basis for the LCA report. If the verifier finds the underlying documents incomplete or that the calculations are performed in an improper way, a request for correction shall be made. If the verifier finds that the LCA does not follow these requirements, additional material will be required, or the submitted documents will require further processing. Such requirements shall be documented. It is not the task of the verifier to correct language matters in the LCA report, but the verifier may comment on such aspects.

The results of the assessment shall be documented and reported to EPD-Norge as a verification report.

A similar review of the EPD is made by the verifier before approval. Part B of the comprehensive checklist shall be used to check if the EPD is in line with the requirements of the relevant references (ISO 14025, other standards or the PCR). Similarly, part C of the comprehensive checklist shall be used to check if the EPD is in line with additional requirements from EPD-Norge. The person who prepared the EPD shall correct deviations pointed out here.

The review process and additional requirements for EPD tools are described in Appendix G.

The verification process is shown in Figure 1:

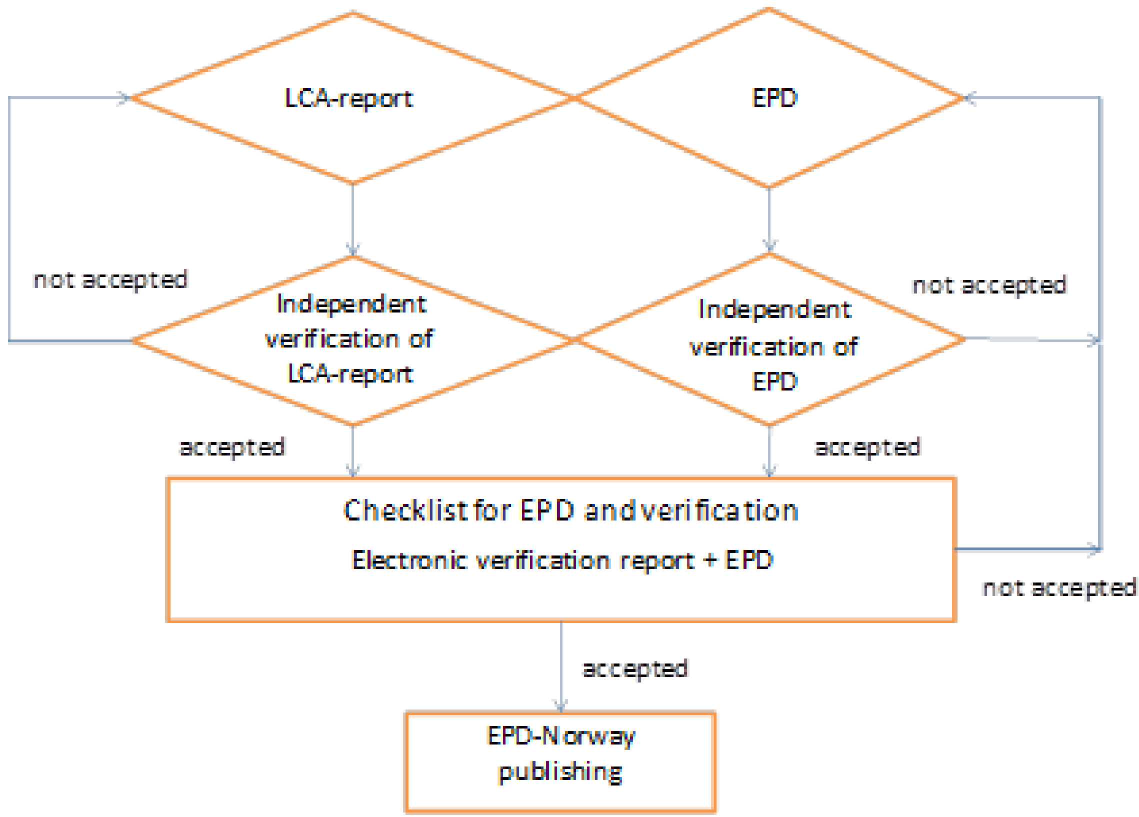

Figure 1. The verification process.

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 EPD-Norge 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-Norge 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-Norge.

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-Norge.
- 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-norge.no/.The Secretariat will provide updates of EPDs in need of revision.
EPDs will remain on the homepage of EPD-Norge until the owner asks for withdrawal or EPD-Norge 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-norge.no/. Upon submission to EPD-Norge 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://digi.epd-norge.no/ 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-Norge, 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-norge.no.
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- Norge 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-Norge shall appoint a PCR convener for the updating process of a PCR document. Initially, 1 to2 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-Norge 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- norge.no 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-norge.no), 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-Norge, use of EPD-logo is always regarded as consent and acceptance of the guidelines and regulations published by EPD-Norge.

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-Norge. 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-Norge. 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-norge.no.

1.2 Guidelines for the use of the EPD-Norge logo

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

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Appendix F

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

There is a fee structure associated with the registration and publication of EPDs in the EPD-Norge 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-Norge.

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-norge.no .

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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-Norge 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.

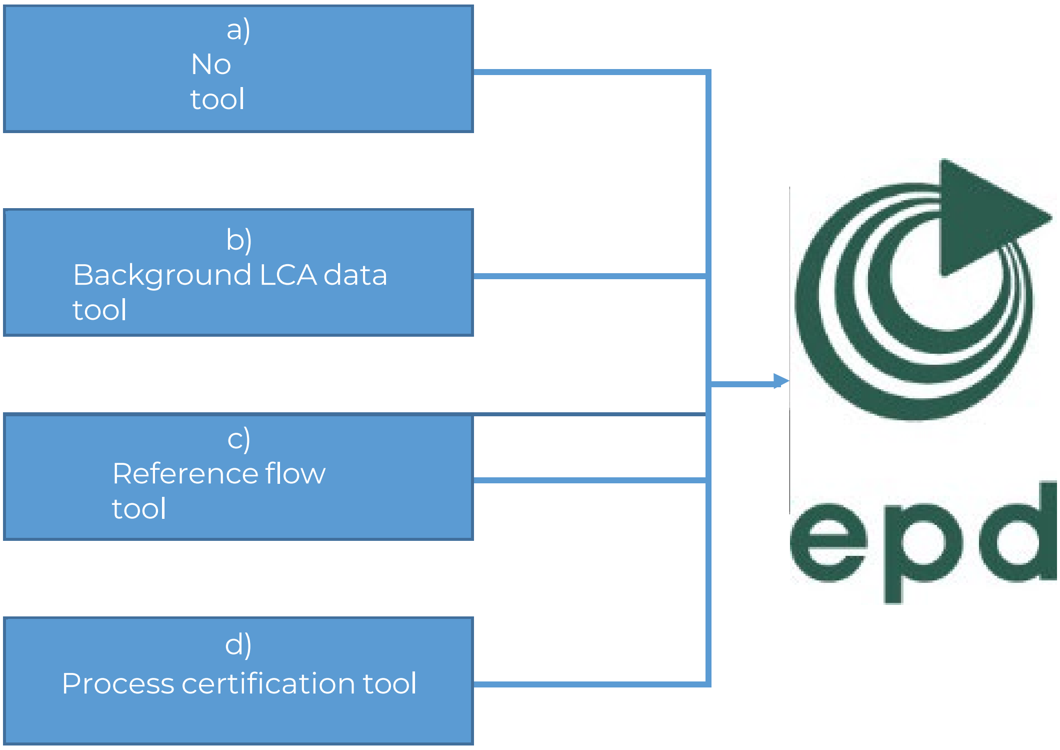

Figure 1: Four options for creating an EPD

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-Norge.

	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
All tools			
Develop: • 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	• Calculate a LCA • Produce the EPD	• Perform a review of each EPD	• Make improvements to the EPD if required • Make improvements to the database if required • Make improvement to the guidelines if required • Publish the EPD
• Implement a log book	• Maintain the log book	• Maintain the log book • External review on a yearly basis may be required	• Maintain the log book
Additional requirements for the reference flow tool			
• Develop a user guideline for handling and maintaining the bill of material or recipe			
Additional requirements for the process certification tool			
• 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-Norge.
- 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-Norge: 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.

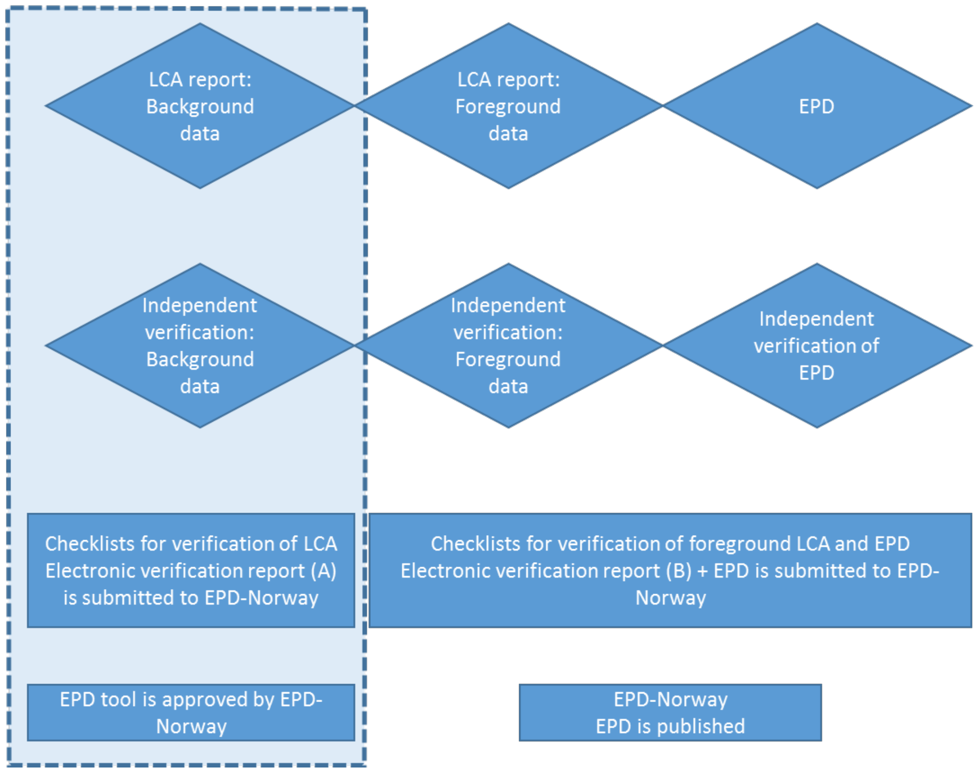

Figure 2: Background LCA data tool

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.

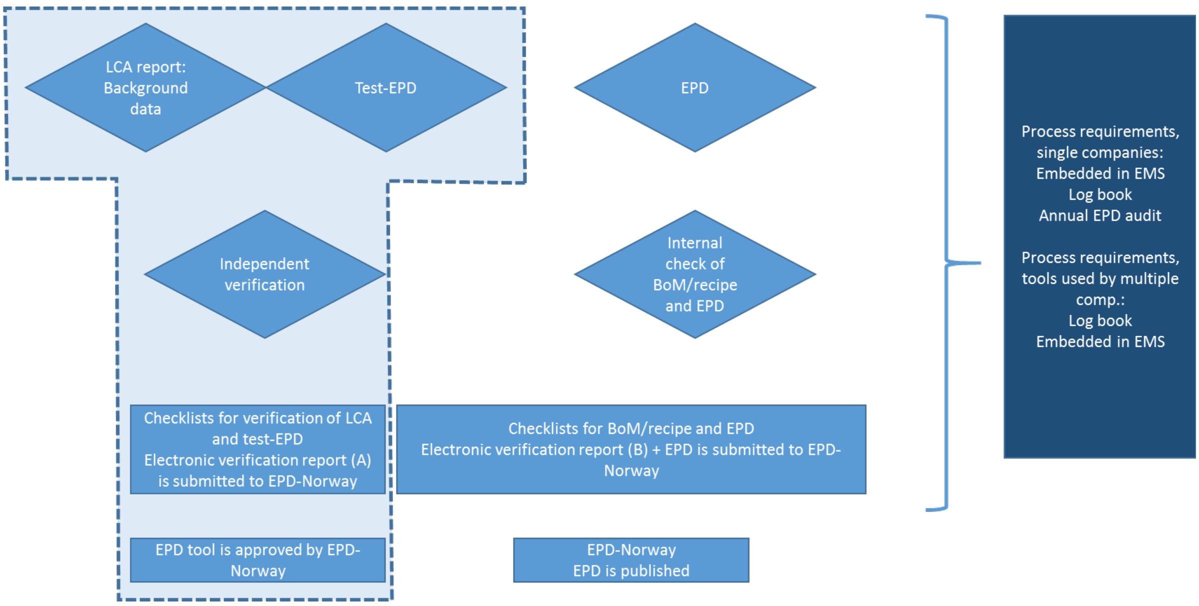

Figure 3: Reference flow tool

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-Norge.

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- Norge may perform additional tests if needed.

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

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.

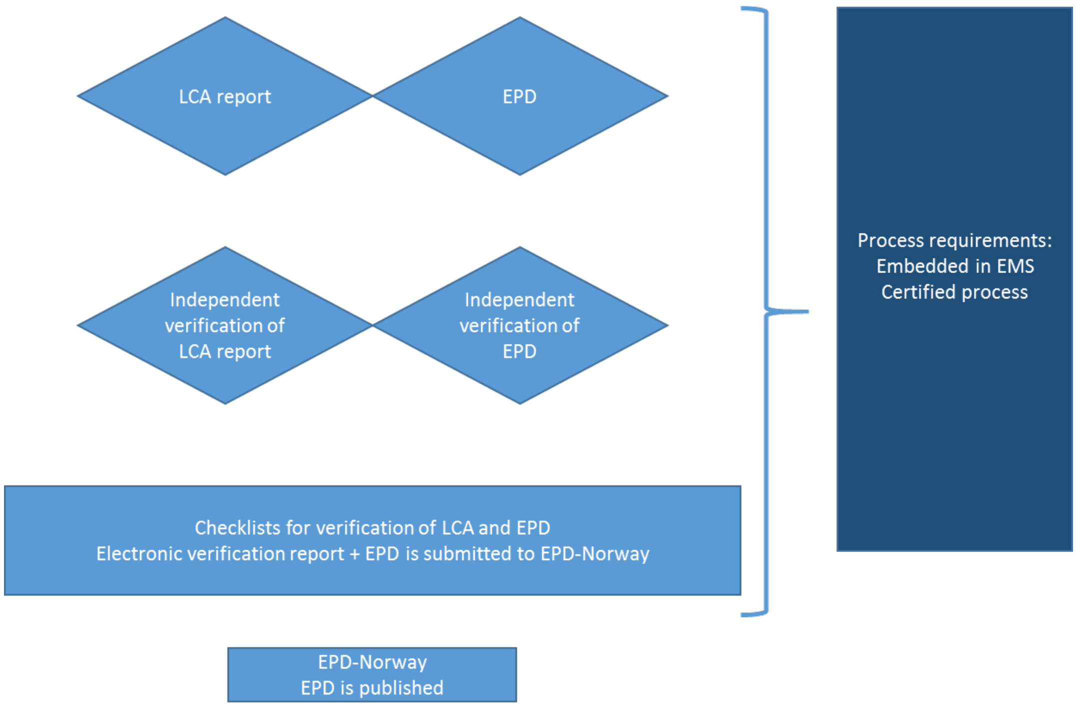

Figure 4: Process certification tool

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-Norge, e.g. related to digital EPDs. This structure also supports the company to t implement EPDs systematically.

The process system tool will be reviewed annually, all actions made from the internal review, and changes compared to the accredited management system will be documented in a logbook. This logbook will also form the basis for the yearly review. Every third review will demand a deeper review that verifies the management system and assess if it is still suitable or if changes need to be made. EPD-Norge's approval of process certification tools is unique and the structure using the PDCA-cycle and logbook will support continuous improvements of the system over time.

A company running the certified process tool approach will publish EPDs by submitting the EPD from the internal LCA expert directly to EPD-Norge (i.e. without a third-party verifier as for traditional EPDs). This requires an implementation of a system logbook and a suitable management system. Such a system will be reviewed by an LCA reviewer and approved either by an accredited body or by the Technical Committee (TC). This approval will be founded on the LCA reviewer's LCA report and a description of essential parts of the management system and its routines. The company handling the process certification tool is solely reasonable for the quality of each EPD published. Such a management system will be externally reviewed upon commencement, the log books will be review annually and every third year the whole tool will be reviewed by a LCA reviewer. In each case, the review report shall be submitted to the approver of the system (accredited body or TC). The management system as such will be reviewed annually according to ISO 14001 or similar. In between these reviews, an internal review will be performed for each EPD developed and published, whereby comments and actions will be stored in the system logbook.

2.2 Common requirements concerning internal procedures, competency and verification in connection with the approval of LCA tools

EPD-Norge requires developers of LCA tools to ensure that the prerequisite competence is in place for the personnel who will use the tool and will, where relevant, request that training is provided or that other measures are carried out in order to achieve the prerequisite competence. EPD-Norge will maintain records concerning the training, competency and experience of users of the tool.

The following activities must be completed and documented in order to approve the tool:

1) A generic LCA report that covers the scope of the forthcoming EPDs must be prepared for using the data that is entered into the tool. This is not to be sent to EPD-Norge.

2) Verification of the LCA data must be carried out by an approved verifier (independent and third-party), who will complete and sign part A of the checklist (verification will be completed according to ISO 14025, section 8.1.3 of LCI data used in EPD generators); see Appendix 1. The fixed LCA data for use in the LCA tool must be quality-assured according to the PCR requirements, age of data (e.g. generic data must not be older than 10 years and specific data must not be older than 5 years) and system boundaries etc. The checklist must be sent to EPD Norge. The checklist must specify which PCR the tool has been verified against.

3) User guidelines must be prepared for the people who will use the tool. These user guidelines must describe the division of responsibility between the person entering the company data in the tool (the user) and the person checking that the correct specific data has been used (the independent reviewer). The training of independent reviewers must include an assessment of practical skills, e.g. training on finding typical errors in EPDs or an exam. The user guidelines must be sent to EPD-Norge.

4) All EPD tools require the use of a logbook. The logbook shall be sent to EPD-Norge annually.

5) EPD-Norge will have the possibility to perform an additional external review at any time and without any specified reason, in order to gain insight on the operation of such tools. Such external review can result in comments that requires actions to be performed in order to run the tools.

3 Information on LCA tools and EPD verification

In addition to the information outlined in the GPI, EPDs developed through any LCA tool shall also include the following information:

- Independent verification (or independent review, where applicable) of the declaration, background LCA data and final LCA result according to ISO 14025 has been performed by: Specify verifiers/reviewers name and company (that indicates if they are internal or external verifiers). Note that up to three different verifiers/reviewers may be involved, each shall be specified.

EPDs developed using a process certification tool shall also contain the following information:

- Third party verification of the management process has been conducted by: Specify the certification body and approved LCA expert. Specify if the certification body is accredited approved by EPD-Norge.

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Appendix H

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Appendix H - References, terms and definitions

The following standards constitute the basis for environmental labels and declarations:

ISO 14001, 2015: *Environmental management systems -- Requirements with guidance for use*
ISO 14020, 2001: *Environmental labels and declarations General principles*
ISO 14024, 2018: *Environmental labels and declarations Type I environmental declarations – Principles and procedures*
ISO 14025, 2010: *Environmental labels and declarations - Type III environmental declarations - Principles and procedures*
ISO 14040, 2006: *Environmental management - Life cycle assessment Principles and framework*
ISO 14044, 2006: *Environmental management - Life cycle assessment - Requirements and guidelines*
ISO 14046, 2016: *Environmental management - Water footprint - Principles, requirements and guidelines*
ISO 14067, 2018: *Greenhouse gases -- Carbon footprint of products -- Requirements and guidelines for quantification and communication*
ISO 21930, 2017: *Sustainability in building construction - Environmental declaration of building products*
ISO 17021, 2015: *Conformity assessment - Requirements for bodies providing audit and certification of management systems - Part 1: Requirements*
ISO 17029, 2019: *Conformity assessment - General principles and requirements for validation and verification bodies*
ISO/TS 14027, 2017: *Environmental labels and declarations — Development of product category rules*

EN 15804:2012+A1:2019: *Sustainability of construction works - Environmental product declaration - Core rules for the product category of construction products*

EN 15941, 2024: *Sustainability of construction works - Data quality for environmental assessment of products and construction work - Selection and use of data.*

EN 15942, 2011: *Sustainability of construction works – Environmental product declarations – communication format business-to-business.*

References in brackets refer to terms and definitions used in ISO 21930, EN 15804 and the ISO 14000 standards.

Carbon footprint:
Net amount of greenhouse gas emissions and greenhouse gas removals expressed in CO_2 equivalents. The CO_2 equivalent is calculated using the mass of a given GHG multiplied by its global warming potential. [ISO/TS 14067:2013]

Characterisation factor:
factor derived from a characterisation model, which is applied to convert an assigned life cycle inventory analysis result to the common unit of the category indicator.
[ISO 14040]

Cut-off criteria:

Specification of the amount of material or energy flow, or the level of environmental significance associated with unit processes or product system to be excluded from a study.
[ISO 14040]

Declared unit:
Quantity of a product for use as a reference in an EPD, based on LCA, for the expression of

environmental information needed in information modules.
[Adapted from ISO 21930]

Data quality:
Characteristics of data that relate to their ability to satisfy stated requirements.
[ISO 14040]

Environmental aspect:
element of an organisation's activities, products or services that can interact with the environment. [ISO 14025]

Environmental performance:
measurable results of an organisation's management of its environmental aspects. [ISO 14001]

Environmental impact:
any change to the environment, whether adverse or beneficial, wholly or partially resulting from an organisation's environmental aspects.
[ISO 14021]

Functional unit:
quantified performance of a product system for use as a reference unit in a life cycle assessment study. [ISO 14040]

Information module:
compilation of data to be used as a basis for a Type III environmental declaration, covering a unit process or a combination of unit processes that are part of the life cycle.
[ISO 14025]

Interested party:
person or body interested in or affected by the development and use of a Type III environmental declaration. [ISO 14025]

Impact category indicator:
quantifiable representation of an impact category.
[ISO 14044]

Life cycle assessment:
compilation and evaluation of the inputs, outputs and the potential environmental impacts of a product system throughout its life cycle.
[ISO 14044]

Polluter-pays principle:
principle to be used for allocating costs of pollution prevention and control measures to encourage rational use of scarce environmental resources and to avoid distortions in international trade and investment, this principle means that the polluter should bear the expenses of carrying out the above- mentioned measures decided by public authorities to ensure that the environment is in an acceptable state.
[OECD, 1972]

Product:
any goods or service.
[ISO 14040]

Product category:
group of products, which have an equivalent function.
[ISO 14040]

Product category rules, PCR:
set of specific rules, requirements, and guidelines for developing type III environmental declarations for one or more product categories. [ISO 14025]

Programme operator:
Body or bodies that conduct a Type III environmental declaration programme. A programme operator can be a company or a group of companies, industrial sector or trade associations, public authorities or agencies, or an independent scientific body or other organisation.
[ISO 14025]

System boundary:
Set of criteria specifying which unit processes are part of a product system.
[ISO 14040]

Type III environmental declaration programme:
voluntary programme for the development and use of type III environmental declarations based on a set of operating rules.
[ISO 14025]

Third-party:
person or body that is recognised as being independent of the parties involved, as concerns the issues in question.

NOTE: "Parties involved" usually covers supplier ("first party") and purchaser ("second party") interests. [ISO 14025]

Type III environmental declaration, environmental product declaration, EPD:
environmental declaration providing quantified environmental data using predetermined parameters and, where relevant, additional environmental information.
[ISO 14025]

Verification:
confirmation, through the provision of objective evidence, that specified requirements have been fulfilled. [ISO 14025]

Verifier:
person or body that carries out verification.

[ISO 14025]

Waste:
Substances and objects the holder intends or is required to dispose of.
[ISO 14040]

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Appendix I

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Appendix I - Complaint Handling

1 Receive Complaints:

Complains must always describe the complaint and be in written form sent to: EPD-Norge; post@epd-norge.no

EPD-Norge responds/accepts receiving the complaint within 2

working days. EPD-Norge will identify the complaint in one of the

following categories:

- ✓ EPD Complaint
- ✓ PCR Complaint
- ✓ EPD-Norge Digi Complaint
- ✓ Financial Complaint
- ✓ Other Complaint
- ✓ Internal Improvement & Complaint

2 Handle Complaints:

For all complaints: Do we need more information Yes/no?

- ✓ Yes, ask in written form about additional information.
- ✓ No, start the complaint handling process.

EPD complaint:

Can EPD-Norge, LCA/EPD expert, part of Technical Committee responds and solve the complaint?

- ✓ Yes, LCA/EPD experts responds in writing.
- ✓ No: Escalate to Technical Committee or to 3rd party verifier
  1) Technical Committee discuss and decide the complaint result.
  2) 3rd party verifier investigates. If the complaint is valid, the EPD must be revised if necessary. If the complaint is not valid, the EPD remains the same.

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

PCR complaint:

Can EPD-Norge, LCA/EPD expert, part of Technical Committee responds and solve the complaint?

- ✓ Yes, LCA/EPD experts responds in writing and make necessary actions if required.
- ✓ No: Escalate to Technical Committee or to relevant PCR convener
  1) Technical Committee discuss and decide the complaint result.
  2) PCR convener investigates. If the complaint is valid, the PCR must be revised if necessary. If the complaint is not valid, the PCR remains the same.

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

EPD-Norge Digi complaint:

Can EPD-Norge Adm. solve the complaint?

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

Financial Complaint:

Can EPD-Norge Adm. solve the complaint?

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

Other Complaint:

Can EPD-Norge Adm. solve the complaint?

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

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

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

3 Close Complaints:

For all complaints, EPD-Norge communicates in writing the result of the complaint and closes the case.
EPD-Norge 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-Norge 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-Norge Board for discussion and decision. In this case, EPD-Norge informs the complainer about the decision not EPD-Norge Board. The decision of the board cannot be appealed.

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