General Program Instructions

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Terms and definitions

The GPI uses the definitions of terms set out in the EPD Hub Core PCR.

1   Introduction to the EPD program

1.1   Program operator introduction

The program operator is EPD Hub Limited, whose purpose is to expand transparency and availability of environmental information to understand impacts and to make justified choices.

EPD Hub is created to address the market failure to produce the required amount of trustworthy environmental and carbon impact transparency data to achieve the carbon reduction requirements for the construction sector to stay within the 2-degree scenario.

Operating this program is the core business of the company, and it is funded by the income from EPD Generator verification, declaration verification and publishing services.

1.2   Objectives of the program

The objectives of the EPD program are following:
-   Increase transparency and availability of environmental information by publishing it.
-   Accelerate the rate of adoption of ISO 14025 Type III EPDs by improving scalability.
-   Improve the quality of ISO 14025 Type III EPDs with improved verification processes.
-   Advance simple, clear, and effortless process for businesses operating globally to publish a range of EPDs meeting various requirements on different markets.
-   Help buyers, specifiers, and suppliers to do well-founded comparisons
-   Encourage environmental performance improvements
-   Promote publishing ISO 14021 Type II (self-declared) carbon footprint data for products and projects to enhance awareness and availability of data also for segments, markets, and applications for which EPDs are not the appropriate choice.
-   To comply with EN 15804+A2:2019, EN 50693:2019, ISO 21930:2017 and EN ISO 14067:2018.

1.3   Operating model of the program

The program operating model is designed to meet its objectives and it includes following:

Digital format required	The program accepts EPDs in a machine-readable format.
Accepted submissions	EPDs can be submitted electronically from pre-verified EPD generators that fulfil the program requirements.
Third party verification	The program itself is the body acting as the exclusive third-party verifier. The program employs a combination of qualified staff, EPD generator pre-verification, digital analysis tools and

	supporting third party experts to perform verifications. The validation of verifiers is described in chapter 4.3
Self-declared data	The program also allows publishing self-declared data.
Supported languages	Currently, the program supports EPDs in English language.
Intended audience	This program is targeted for business-to-business use.

For data publishers who are in transition to machine-readable and pre-verified EPD generators, the program may accept a limited number of traditional document-based EPDs. Processing times and fees for such EPDs are higher, and the number of such EPDs accepted is limited by the program's available capacity. Digital EPDs are always processed in priority. The verification processes for such EPDs are described in 3.7.

1.4 Organization of the EPD program

The company employs internal and external experts for performance of its duties. The following functions ensure EPD program operations.

Function	Description	Responsibility and authority
Program manager	Expert managing internal and external verifiers and analysis and approving results and approving connecting EPD generators.	Final decisions on verification on behalf of EPD Hub as the body performing 3rd party verification, and conduct duties as set out in the ISO 14025 chapter 6.3.
Technical committee	Third party panel of external experts reviewing the PCR(s) and providing expert advice on operation and future development of the program.	Review of PCR(s) as set out in ISO 14025 chapter 8.1.2, review GPI and provide advice for program future developments.
Verification committee	Supporting third party EPD verification experts with experience from various sectors, chosen by EPD Hub	Perform duties as third-party verifier under program responsibility as outlined in ISO 14025 chapter 8.
Tools committee	EPD Generator developers working with EPD Hub	To advise on technology development & automation.

1.5 Key documentation for the EPD program

General Programme Instructions
This document is the GPI of the program. Latest version can be found on www.epdhub.com.

List of PCR documents
The program currently has a single PCR, which can be found on www.epdhub.com.

List of Type III Environmental Declarations (independently verified)
List of all valid EPDs can be found on www.epdhub.com.

List of Type II Environmental Declarations (self-declared)
List of all valid self-declarations can be found on www.epdhub.com.

Commercial terms for the EPD program
Please contact EPD Hub for further information at hub@epdhub.com.

EPD program privacy policy
Can be found on www.epdhub.com.

1.6 Machine-readable data and documents

The EPD program always requires machine-readable data. The below table summarises the requirements in more detail per each of the documents.

Function	Author	Machine readable data	Document format
EPD document	Manufacturer	Always required	Always required
Background data*	Manufacturer	Always required	Not accepted
Verification report	EPD Hub	Always generated	Machine readable data printout available only

The accepted document format for the EPD document is determined in connection with the used pre-verified EPD Generator. The background data submitted by the EPD generator shall contain all information necessary for performing verification on each submitted EPD for types of EPDs that the given EPD generator has been pre-verified for.

*The program does not generally accept background data in document report format (word, PDF etc.) and reserves the right to reject any EPD submissions with background data only in such format. If the program accepts such, they are subject to additional fees.

1.7   Principle of fact-focused and purposeful verification

The EPD publisher is always ultimately responsible for the accuracy and truthfulness of their EPDs. The program does not promote non value adding tick-the-box EPD verification.

Where the PCR, the applicable reference standard or c-PCR provides detailed procedural rules, detailed documentation may be covered by statement that confirms that the declaration is aligned with the specific provision(s) of the PCR, the said standard or c-PCR.

The purpose of the EPD Hub verification process is to ensure that LCA and EPD data are in line with the actual facts, as they exist in the business and on the marketplace and reliably and truthfully represent the object of the study, meet the requirements of targeted standards and PCR, and do not give ground to concerns about their accuracy. Any verifier performing verifications for EPD Hub is allowed to require any additional information to ensure above principles are respected.

1.8   Principle of non-redundancy

The program allows using a single, confidential set of machine-readable background data (LCA report) for multiple declarations. In such case, the LCA report must be linked to every declaration verification documents to ensure they are accessible to verifiers.

When standard requests for the same information is available on both the EPD and the LCA report, the information on the EPD is deemed to represent the information in the LCA report, and the third-party verifier shall verify the information only on the EPD.

When multiple EPDs do not vary on other aspects except those documented on the EPD, the verification process can use same LCA report for entire set of EPDs.

1.9   Prices for EPD verification and publishing on EPD Hub

EPD Hub charges EPD Generator pre-verification at an hourly rate based on quote, which depends on complexity of the EPD Generator and sectors and scopes supported. Verification requires a minimum down payment before the verification can commence.

Prices for EPD verification and publishing from pre-verified EPD Generators are determined by 1) degree of automation and process guarantees for the tool and its users, and by 2) complexity of the EPD: standards (2.3), scope, use of c-PCR and inherent variance (2.11). EPD Hub establishes reference pricing applicable for the EPD tool and complexity parameters.

Prices for EPDs verified and published under cases as defined in 3.7 is based on quote.

2   Types of Environmental Product Declarations supported

2.1   Supported sectors as an EPD program operator

The program is targeting the following sectors, products and services, as an EPD program:
1.   Construction products (any type, including non-permanently installed equipment)
2.   Electrical products (any type)
3.   Manufactured products (other than construction and electrical products, any type)
4.   Energy supply
5.   Built environment services

2.2   Supported sectors as a carbon transparency platform

EPD Hub is also promoting carbon and environmental impact transparency for assets for which EPD is not always the right option. EPD Hub supports publishing other types of carbon and environmental impact transparency data as self-declared or other type of non EPD data.

The other applications include publishing carbon and LCAs buildings and infrastructure (of any type) as well as for organization life-cycle assessments representing entire activity of an organization, and all categories supported via EPD program.

These applications are referred to by the GPI for clarity. All further documentation in the GPI refers only to the rules of EPD Hub as EPD Program Operator, unless otherwise stated.

2.3   Standard-alignment for the declarations per sector

The program does not allow every sector to pursue every standard. The allowed combinations are shown in the following table.

Sector	Eligible standards
Construction product	EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018, EN 50693:2019
Electrical product	EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018, EN 50693:2019
Manufactured product	EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018
Energy supply	EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018
Built environment services	EN 15804+A2:2019, ISO 21930:2017, ISO 14067:2018

2.4 System boundary for the declarations

EPDs can be created with the following scopes, provided the standard allows the given scope to be applied for the EPD in the case of the given product.

Cradle to gate	These EPDs only cover phases from raw materials to manufacturing (A1-A3). This is the only option available for carbon footprints. EN 15804+A2:2019 severely limits the application of cradle to gate EPDs. Same module definitions shall apply also in case of EN 50693:2019 and ISO 14067:2019.
Cradle to gate with end of life and options	These EPDs cover phases from raw materials to manufacturing (A1-A3) and end of life (C1-C4) and impacts outside system boundary (D), with potentially other life-cycle phases included (including A4, A5, B1-B7).

2.5 Third-party verified and self-declared declarations

Declarations can be made as either third-party verified ones, pursuing ISO 14025 (Type III) compliance, or as self-declared ones, pursuing ISO 14021 (Type II). The latter category is not covered by the EPD program, but it is a carbon transparency service that is provided separately.

2.6 Categories of EPDs

This program has the following categories of EPDs. Their use is subject to limitations.

Third-party verified EPD	Traditional third-party verified EPD. No limitations on use.
Sister EPD	Sister EPD is a variant of an existing published EPD (parent EPD). Sister EPD must carry the EPD number of its parent EPD published on EPD Hub. Further rules are provided in Annex II.
Project EPD	Project EPD is created for a specific contract or project. It can be publicly available. Project EPD must mention for which contract or project it is made. Project EPD is a variant of an existing published EPD (parent EPD). Such an EPD is only valid for 36 months.
Private EPD	Private EPD is created without intention to publish it for example for competitive reasons. Such EPD will be third-party verified and EPD number will be issued. However, it will not be available on the EPD Hub website for download.
Design phase EPD	EPD created for new product before 12 months production data is available. Such an EPD is only valid for 18 months.
Self-declared EPD	File containing similar information as EPD, but self-declared.

The supported EPD categories may be revised in the future.

Further, an EPD can have following special states. If EPD is in one of these states, the EPD Hub website mentions the state of the EPD. It will not be reflected on the document itself. EPDs that have expired or have been withdrawn will no longer be downloadable.

EPD withdrawn	EPD that has been published, but is no longer, is withdrawn. Such an EPD is no longer publicly available on the EPD Hub website. Withdrawal can be done by the publisher or by the EPD Hub.
EPD expired	EPD that has expired because of reaching last date of validity.
EPD under review	EPD that is being reviewed, possibly because of 4.7.

2.7   Mandatory statements and data required from all EPDs

Every EPD must carry very prominently on the first three pages of the EPD the following information as a single summarized, clearly readable table. One of the mandatory options must always be selected and shown on each EPD. If the mandatory data answer is very long, it's allowed to present the data outside the table.

EPD information	Mandatory options	Mandatory data
EPD Number	-	Number from EPD Hub
Validity	-	Start & end of validity
Last updated	-	Date EPD last updated
Standards compliance	EN 15804+A2:2019, ISO 21930:2017, EN 50693:2019, ISO 14067:2019	-
EPD category (must mention if applied)	See in 2.6.	-
System boundary	Cradle to gate or Cradle to gate with end of life and options	-
c-PCR	-	Must mention if it is used
Verification status	Third party verified (ISO 14025) Self-declared (ISO 14021)	-
Verifier	-	Verifier must be stated
Products covered	Single product Multiple products	Product name(s) covered by the EPD.
Locations covered	Single location Multiple locations	List of locations covered, including city and country.

EPD information	Mandatory options	Mandatory data
Manufacturers covered	Single manufacturer Multiple manufacturers	List of manufacturers covered by the EPD.
Sector	Construction product Electrical product Manufactured product Energy supply Built environment services	-
Declared unit		Declared unit

Following additional information may be provided on optional basis:
- Mass per declared unit
- GWP fossil (total carbon footprint, kg CO2e per declared unit)
- Secondary material inputs % of mass (A1-A3, in the product)
- Secondary material outputs % of mass (C3, re-use, recycling, or energy recovery of the product at end of life)
- Total energy usage (A1-A3, during the product stage)
- Total water usage (A1-A3, during the product stage)

2.8   Environmental impact data covered by the EPDs

Every EPD can incorporate exactly one set of LCA result tables, comprising all life-cycle stages and impact categories as required by the standard being applied. If a standard has any optionally displayed categories, those do not need to be displayed.

Displaying additional LCA data for the same product, e.g., other characterisations, in separate and clearly labelled LCA result tables is allowed.

Distinct LCA results need to be separated to different EPDs. The program does not support EPDs with multiple sets of LCA result tables.

2.9   Single product EPDs requirements

EPD can be deemed to be "Single Product" in following cases
- Variance in the supply during a period of last 12 months or another justified period is always considered to represent a single product, also when supply has seasonality.
- When the products are painted, all the different colours and hues can be handled as a single product.
- When there are variances in the stock keeping units, but the differences between them are only applied on the items that are or could be outside the cut-off.
- When the product is available in different sizes, and all components scale linearly, and scaling does not lead to change in proportions in terms of inputs and outputs.

- When product can be cut to different lengths or sizes and when such cutting has only very minor impact on the materials loss rate or packaging materials demand.

Additional Single Product rulings can be requested from EPD Hub. Approved and rejected cases will be recorded in a future appendix of this document.

2.10 Mass conversion tables, scaling tables and extrapolation rules

Any linearly scaling EPD is allowed to have a mass/size conversion table as an optional appendix. Such appendixes are presented as additional information and are not verified.

Any EPD is allowed to have size extrapolation rules and scaling tables as optional appendix. Such appendixes are presented as additional information and are not verified. Declaring additional GWP data in non-linear scaling tables in appendix of an EPD is allowed.

2.11 Allowed averaging and aggregation for EPDs

Allowed combinations of different types of permutations of variability are shown below.

Products	Locations	Manufacturers	Is this combination allowed?
Single	Single	Single	Yes
Single	Single	Multiple	No, except for associations
Single	Multiple	Single	Yes
Single	Multiple	Multiple	No, except for associations
Multiple	Single	Single	Yes except for energy or services
Multiple	Single	Multiple	No, not for any sector
Multiple	Multiple	Single	Yes except for energy or services
Multiple	Multiple	Multiple	No, not for any sector

Following cases prevent representing data as averaged
- If some of the products contain REACH SVHC materials and others do not.
- If some products serve a different function.
- If some products are manufactured using a different main process or from different materials.
- If products have different end of life scenarios.
- If products have different use stages. In order to be accepted into the average declaration each included product must have the same use stage processes.
- Difference in a functional or performance rating, such as strength class

Detailed rules for allowed averaging and aggregation can be found in the Annex I.

Every averaged EPD must mention every product, location, and manufacturer it represents.

3   Verification processes in the EPD Hub

3.1   Pre-requisite: EPD Generator pre-verification (mandatory)

The program only accepts submissions from pre-verified EPD Generators. The purpose of the pre-verification is to ensure that generated documentation is consistent in quality and to ascertain that the minimum requirements are programmatically guaranteed. The list of pre-verified EPD Generators and industry sectors they can support are available on website.

The software pre-verification verifies which of the minimum requirements for EPDs can be programmatically guaranteed. The program reserves the right to reject a software pre-verification if a software cannot guarantee covering sufficient share of all requirements.

The pre-verification requires the EPD Generator developer 1) to document processes required by the EPD Hub, 2) to provide a royalty-free access to the software for purpose of verification, 3) to answer all questions arising from the verification, 4) fix any issues defined as mandatory by EPD Hub, 5) to generate digital documents for EPDs, and 6) to pay the applicable verification fee (see 1.9). The software pre-verification is conducted by the EPD Hub program manager, with potential support from other experts.

Exceptions to this can be accepted on case-by-case basis either on the interim while pre-verified status for a software is not yet achieved, or in transition when moving to a pre-verified software. The processes for such EPDs are described in 3.7.

3.2   Data quality requirements for pre-verified EPD generators

The data quality requirements for the pre-verified EPD generators are set according to the EN ISO 14044 (4.2.3.6) and the targeted standards (see 2.3).

The generic LCA data sources used in pre-verified generators shall use datasets based on attributional / cut-off methodology. The cut-off approach follows the "polluter pays" principle, in which the emissions of wastes are fully allocated to the producer. These wastes are burden-free when used as secondary materials in the next product system. This requirement shall apply also for pre-verified EPD generators used for ISO 14067 compliant declarations.

EPD Hub recognizes that some background data may have economic allocation applied for parts of allocation. Performing a recalculation for all background data shall not be required, when EPD Hub judges that there is no risk of misrepresentation of results.

3.3 Starting point for the verification (mandatory)

EPD verification and publishing is only performed when the declaration and supporting documents are transmitted into the EPD Hub portal. The declaration can no longer be modified, except in between verification rounds if applicable. When the declaration is successfully verified, program shall automatically publish it. The party uploading the documentation has the obligation to provide correct and truthful data in formats required.

3.4 Internal review for product description (optional)

Product and manufacturing process description related content of any EPDs may be verified within the manufacturer organisation by agreement with EPD Hub. The EPD review is scrutinizing completeness and accuracy of the information. If internal review is not performed, the checks will be done within third party verification as described in 3.5.

3.5 Independent (third-party) verification (mandatory)

The final verification is the independent (third-party) verification, for which the program itself takes the responsibility as the body performing the verification. The program may use internal and external experts to perform the verification. Verification does not cover scopes that is not applicable to the EPD in question, or aspects ensured by software pre-verification. The principle of the verification is described in 1.7.

 The verification is carried out at the prices determined based on the principles set out in 1.9, on which the person(s) supporting the verification have no influence over. Central management of the verification process guarantees consistent high quality of the verifications and avoids race to the bottom in terms of contracting the verifiers.

Each verification is supported by an EPD Hub staff verifier or external consultant verifier who fulfils competence and impartiality requirements as set out in 4.3.

3.6 EPD update and variance third-party verification (for updates)

If any of the content of the EPD is edited, either for purpose of updating description, energy mix, components or materials used or other parameters, or varied for purpose of creation of sister EPDs, only the variances will be subject to third party verification. The changes in this case cannot change number of products, sites or manufacturers covered.

3.7 Exception: verification of EPDs not from pre-verified tool

Prior accepting an EPD from a non-pre-verified tool for processing, EPD Hub may require the right to inspect the EPD document in question. Subject to the sufficient basic level of quality, EPD may be verified and published using a document-based verification process. In a document-based verification process, all of the verifications as covered in points above are conducted by the EPD Hub as a single verification.

4 Overview of the core processes of the EPD program

4.1 Procedure for verification and verification statement

The program and third-party verifiers it works with objectively review and verify results and data against required standards. They do not guarantee any verification shall result in an acceptance. Evidence of compliance, as recorded in delivered data and documentation is the sole criteria for acceptance. If a submission results in a second rejection for the same document, the program reserves the right to charge additional work.

The verification must confirm if the declaration accurately reflects the information in the supporting documents, and if the information is valid and scientifically sound.

To protect the integrity and quality of the data, the program reserves the right to refuse to publish any declaration submitted, and to withdraw any declaration already published.

ISO 14025 sets out a requirement for third party verifiers to generate a report documenting the verification process, while adhering to obligations on data confidentiality. This requirement can be covered by attaching a verification statement directly to the declaration. Otherwise, the verification statement or verification dialogue is available on request.

4.2 Scope of third-party verification

The scope of third-party verification is always aligned to the content, system boundary and scope of the EPD, for example in regard to the standards pursued and averaging applied. The verification does not need to cover any scope that is not applicable to the EPD. The principle of the verification is described in 1.7. The verification is conducted by a person validated as per the following section. A verified and published EPD has the right to use the EPD Hub logo as well as the EPD Hub verified EPD logo shown below.

4.3　Validating competence and impartiality for verifiers

Every person verifying EPDs either as EPD Hub program manager, employee or supporting third party verifier must fulfil the following competence and impartiality requirements.

Competence requirements for persons doing verifications in general:
- ✓ Suitable educational background, allowing effective work in field of LCA and EPD.
- ✓ Knowledge of following standards: ISO 14040, ISO 14044, ISO 14020, ISO 14024, ISO 14025, EN 15804, EN 50693, ISO 21930, ISO 14067, ISO/TS 14071, CEN/TR 16970.
- ✓ Understanding the relevant sector, product/service and their environmental impacts.
- ✓ Understanding the manufacturing process of the relevant product.
- ✓ Understanding the regulatory context for the product in the targeted market.
- ✓ Experience from LCA and EPD verifications, including third party verifications.
- ✓ Knowledge of EPD Hub GPI, PCR, and other relevant instructions.

Compliance with above requirements is inspected by the EPD Hub based on the CV, references of past work and written answers of a potential verifier.

Impartiality requirements for persons doing verifications for specific cases:
- ✓ Not to have been involved in creation of the LCA or the EPD being verified.
- ✓ Be free from any conflict of interest that would bias the impartiality of verification.
- ✓ Must not have any other relationship with the publisher issuing the EPD.
- ✓ Not to have an economic interest in a particular outcome, positive or negative, regarding the result of the verification[1].
- ✓ Signed to uphold EPD Hub terms and conditions.

EPD Hub requires every potential verifier to list ongoing interests related to above at the start of the relationship, and to declare conformity with above for each EPD being verified.

EPD Hub maintains an up-to-date list of verifying persons and their competence.

Every verifier applying to be a verifier for EPD Hub accepts that their personal data is processed for the purpose of evaluating verifications and in case of EPDs being verified and published, their name shall be displayed on the EPDs verified by the verifier.

4.4　Creation, review and updating of product categories and PCRs

The program is created with the intent of operating a single PCR that supports the types of products listed in chapter 2.1, and that offers options to comply with EN 15804+A2:2019, ISO 21930:2017 and EN ISO 14067:2018. There is no foreseen need for supporting further product categories. If further product categories are required, they shall be created based on emergence of a new regulation, standard or other similar requirement. PCR is valid 5 years.

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[1] Note: this clause shall not be understood as prohibiting charging for work for additional verification rounds.

The PCR shall be designed to ensure standards-compliance, high quality of results and to minimize burden of needless documentation to make declarations more accessible. The PCR shall not require information that is not essential for compliance or quality of declarations.

The PCR, and future major revisions, shall be opened for consultation before their launch. PCR updates are issued with change log and entry in force details for each revision.

Feedback and improvement suggestions on the PCR are collected on an ongoing basis, and they are reviewed quarterly. If cumulative feedback merits an update to the PCR, the PCR update shall be created. If the update is editorial (that is, clarifying practices), it shall not be submitted to technical committee. Major updates are submitted to the technical committee, which shall scrutinize and review them and send back to the program for amendment.

4.5   Data confidentiality

All declarations which are approved by the program shall be released to the public domain. Supporting, confidential documentation to the declarations shall be limited solely to the access of the program staff for continued inspection of possible claims or queries regarding the declaration. Furthermore, supporting, confidential documentation shall be provided to the persons performing third party verification for the duration of the verification for the purpose of the verification.

4.6   Procedure for data management

The program applies the following data and version management practices:
- All declaration documents are versioned and carry record of who added them.
- Verification checklists are stored for every verified document as per ISO 14001 4.5.4.
- All current versions of program documents are available on the program website
- The program manager reviews and approves documents and their revisions
- For major changes in PCR, the technical committee must review changes as well
- All program documents come with a version control log of changes

4.7   EPD-related dispute resolution and arbitration

EPD Hub welcomes any feedback on substantiated concerns about quality, accuracy or truthfulness of any EPDs. Any party with such concerns is welcomed to share their concerns with the EPD Hub, including the data or information substantiating the concern.

If, in the opinion of EPD Hub, based on available data, including non-public data, such allegation seems substantiated, EPD Hub may place an EPD under the status "In review" on the portal (see 2.6).

EPD Hub reserves the right to require further evidence from any publisher to substantiate the quality, accuracy, or truthfulness of their EPDs, including already published EPDs, based on concerns on their quality. Publisher is given an opportunity to respond to these concerns, which may or may not lead to the revision of the EPD in question.

If, in the sole opinion of the EPD Hub, the answers are not satisfactory, EPD Hub reserves the right at its sole option to either transition the document to a self-declared status or to withdraw it.

4.8   Handling conflicts of interest

If any verifier performing work for EPD Hub has been found having conflict of interest for verification of specific EPDs, said EPDs will be placed under the status "In review" on the portal (see 2.6) for up to 60 days, during which EPD Hub may re-arrange their verification. EPD Hub may also initiate itself a re-verification of an EPD if impartiality is in question.

Annex I: Rules for averaging and aggregating EPDs

The program allows averaging of EPD results in several cases (see 2.11). Rules for the averaging are presented below:

1) The averaging in all cases must be done in the following way (the same process applies for both multiple products and multiple manufacturers):
- First a baseline model for a highly typical product within the averaged sample must be created. This can be calculated by using data for a typical manufacturing plant.
- From this baseline model, those inputs (raw materials, energy) and outputs (manufacturing waste, wastewater) which constitute 80 % of the GWP impacts for life-cycle stages A1-A3 are gathered for all the products/sites to be averaged.
- The indicator used for this assessment is GWP-fossil as defined in EN15804+A2:2019 (Annex C.2.3).
- Only flows in the product stage modules (A1-A3) are included in this assessment, and all scenario-based data is excluded (modules A4-A5, B1-B7, C1-C4, and D)
- The variability is assessed by changing the baseline data according to the actual flows in the products or facilities which are to be included in the average. For allowed types of average EPDs (see 2.11).
- This can be done by creating two LCA models based on the baseline model and by changing their constituent flows to a minimum case and a maximum case in terms of material and energy consumption.
- The allowed variability in GWP-fossil results when changing these inputs and outputs is +/- 50 %.
- If this is exceeded, the results cannot be reported in a single EPD, and instead several different EPDs have to be made to cover all of the products included in this evaluation.

In order for products to be able to be declared as an average, they must fulfil certain criteria. The following criteria apply for averages when there are multiple production sites.

2) Requirements for process & materials similarity in multiple location declarations:
- Main processes must be of similar type in all covered locations. For example, averaging an Electric Arc Furnace with Basic Oxygen Furnace in steelmaking is not allowed. But averaging locations with different sub-processes is allowed, as long as those sub-processes do not cause a difference of more than +/-10 % in A1-A3 GWP fossil.
- Different suppliers and sites must all use similar raw materials, but variations in recycled or secondary feedstocks can vary between suppliers.
- Maximum allowed variance in pre-averaged data is +/-50 % from average GWP fossil for A1-A3. Variance in in GWP in pre-averaged data must be documented on the declaration.

In a case where multiple products are averaged; the following criteria apply:

3) Requirements for creating product group average declarations

- Averaging is only possible for products with an equivalent purpose, for example, 'floor finishes', 'concrete blocks' or 'insulation' to be used in similar context (internal/external use).
- Averaging is only possible for products that are manufactured using a similar process from similar raw materials. Rates of recycled content and source of energy may vary. Proportions of the raw materials can vary.
- Products with different dimensioning or sizing, for example can be generally grouped.
- For assembled products, the specific components may vary, but the function of product must be same (e.g., only internal doors with same fire and acoustic ratings).
- Maximum allowed variance in pre-averaged data is +/-50 % from average GWP fossil for A1-A3. Variance in in GWP in pre-averaged data must be documented on the declaration.

In addition to multiple location and product group averaging, this program allows the use of extrapolation of results and scaling factor tables to present impact information outside the main results. The following rules apply for such cases:

4) Rules for extrapolation and scaling factor tables

- For linearly scaling products, a scaling factor table made using the extrapolation of results can be added (see 2.11).
- A linearly scaling product is defined to have one of the following qualities:
    - Is made of a single homogenous raw material (i.e., steel or concrete without reinforcement).
    - Change in its proportions does not change its raw material composition or the energy intensity of its manufacturing (kWh/kg).
- In this program it is also possible to declare results in a scaling factor table for non-linearly scaling products.
- Non-linearly scaling products include assemblies and products in which the amounts of materials change in different proportions when the product size varies, thus giving inconsistently changing results.
- Because of this, each different size must have its emissions calculated separately in a scaling table or other type of annex.

Annex II: Sister EPDs

Sister EPDs are strictly variants of published EPDs (referred to as parent EPD) in the EPD Hub*. The parent EPD can be submitted for publication at the same time as the sister EPD, but the sister EPD cannot be published if the parent EPD has not been published.

They must have same manufacturer, purpose, declared unit, main constituent materials and manufacturing process.

They can vary in size, finishings, detailed composition of raw materials, amount of recycled or reused content, compliance with additional standards or other parameters.

A sister EPD's maximum allowed variance in GWP fossil is +/-50 % A1-A3 from the published parent EPD to which the sister EPD refers to.

*For parent EPDs published in other EPD programs, EPD Hub may accept to use instead a private EPD in the EPD Hub as the parent EPD for the verification process purposes.