**Note:** This template is for PCEM for materials reductions or recirculation.

**Cover page:** Free design, corporate logos can be used (recommended). The content presented here is mandatory, but the format can be changed.

**See general filling instructions on Page 5.**

When the sections are completed, change the pink font colour to black.

Delete this box.





Joint Validation and Verification Report

|  |  |
| --- | --- |
| PCEM name: | Enter the name of the project or programme. |
| Client: | Person or company to whom the report is addressed, normally the PCEM holder. |
| PCEM ID: | ID number in the EcoRegistry database. |
| Report ID: | ID number assigned by the VVB, if applicable. |
| Verification number: | Verification number. |
| Audit criteria: | Outline the criteria under which the PCEM has been verified. |
| Methodology:  | Name and version of the materials[[1]](#footnote-2) reduction or recirculation quantification methodology used by PCEM. |
| Duration of the PCEM: | From day.month year to day.month year. |
| Verified area, facilities, or processes: | Total area or description of the facilities or processes that were verified by the VVB. |
| Accreditation period: | Enter the validated accreditation period: from day.month.year to day.month.year.  |
| Verified period: | Enter the verified monitoring period: from day.month.year to day.month.year. |
| Validation | Estimated total material reductions or recirculations in the accredited period. | Estimated total tonnes in the accreditation period. |
| Estimated net material reductions or recirculations in the accredited period. | Estimated net tonnes in the accreditation period. |
| Verification: | Total material reductions or recirculations generated in the verified period. | Total tonnes generated in the verified period. |
| Net material reductions or recirculations generated in the verified period. | Net tonnes generated in the verified period. |
| Date of issue of the verification report: | Day.month.year this report was issued. |
| Document issued by: | VVB that issued this report. |
| Contact information:  | VVB email address, telephone number(s) and website. |
| Approved by: | Person at the VVB who approved this report. |
| Work performed by: | Person(s) who performed this joint validation and verification. |

 The VVB may add rows it considers important in this section.

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Instructions for filling out this document.

While filling out this document, delete the instructions given in each section.

The content presented here is mandatory, but the format can be changed. If for some reason a section or sub-section does not apply, do not delete it but indicate that it does not apply.

Once you have added all the necessary content, generate the table of contents of this document again (right click somewhere in the table of contents, in the pop-up menu select "Update fields" and finally choose "Update entire table").

The **Joint Validation and** **Verification Report** must be delivered in Acrobat (.pdf) format. In Microsoft Word, when generating the document in this format (Save as, .pdf format), **activate** the option "Create bookmarks using: Headings".

**Doing it this way will facilitate the work and reduce the certifier's management time.**



Abbreviations and acronyms

Enter in alphabetical order the acronyms and abbreviations used in the report.

|  |  |
| --- | --- |
| **PCEM** | Programme or Project on Circular Economy Materials |
| **PDD** | Project Description Document |
| **SDGs** | Sustainable Development Goals |
| **VPCE** | Voluntary Programme on Circular Economy |
| **VVB** | Validation and Verification Body |

1 Introduction

Objective

Describe the objective of the audit.

* 1. VVB legal status

Describe the legal status of the VVB, current accreditations, organisational structure, and whether the PCEM sector is covered in your validation and verification audit.

* 1. Impartiality of the VVB

Describe how you ensure the impartiality of the independent and free assessment in this PCEM validation and verification process, i.e., provide evidence that there are no conflicts of interest or detail how they have been resolved. List evidence in this regard, such as declaration(s) of conflict of interest of the validator(s) and verifier(s), commitments, among others.

* 1. Responsibilities addressed by the VVB

Demonstrate that the risks arising from the validation and verification activity have been addressed and that you have adequate means (e.g., insurance or reserves) to cover liabilities arising from validation and verification activities in the geographical areas in which the project operates.

* 1. Scope and spatial and temporal limits

Explain the scope of the validation and verification process, how it is performed, and the spatial and temporal limits covered.

* 1. Term of commitment

Describe the type of commitment established with the client for the validation and verification process.

* 1. Level of assurance and materiality

Describe the level of assurance agreed with the client, with which this report and validation and verification statement will be issued, as well as how and when evidence will be collected so as to obtain a reasonable level of confidence in accordance with the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy*** and applicable laws.

Validation and verification process

Validation and verification plan

Detail the validation and verification process plan (methods and criteria considered during the development of the audit), specifying:

1. The type of audit: detail whether it is face-to-face, remote, or a combination of both.
2. The type of documentary or evidence review.
3. The identification and resolution of findings.
4. The period during which the audit was conducted.
5. The identification of risks associated with the use or collection of data and data systems.
6. The assessment of risks of non-compliance with the criteria.

The above in order to identify the types of potential material misstatements and their likelihood of occurrence, to select the evidence collection, testing or estimation procedures, and the evaluations, calculations, sampling, consultations, or other evidence it deems relevant to its assessment and conclusions.

Any modifications to the validation and verification plan and evidence collection plan must be approved by the team leader.

* 1. Assessment criteria

State the criteria under which the PCEM is assessed, including, but not limited to:

1. Protocol: indicate the version of the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy*** under which the PCEM is developed.
2. Methodology: indicate the reduction or recirculation quantification methodology selected by the PCEM.
3. Tools: indicate whether the PCEM uses the ***Tool to Report Contributions of*** ***Circular Economy Initiatives to the Sustainable Development Goals***, as it is mandatory for use; furthermore, indicate whether the PCEM uses permitted tools from other standards or programmes.
4. ISO Standards: indicate the ISO Standards on which the PCEM is based.
5. Legal framework: indicate whether the PCEM complies with applicable laws, decrees, resolutions, or other regulatory frameworks.
6. Other relevant.

It is important to detail in the standards or legal documents, their date of publication or version; in both cases they must be in force.

* 1. Evidence collection plan

Describe the design of the activity plan for the collection of evidence for each activity related to the validation and verification of the PCEM on which your conclusion is based.

* 1. Visits to the PCEM site or area

Describe the method and objectives of on-site (if developed), remote or mixed visits. Include in the description details of all areas or facilities visited or reviewed, as well as physical, organisational and process aspects, equipment and documentation reviewed. In addition, include and list interviews (if conducted) and the information provided in them.

* 1. VVB requests

If made, describe any requests made to the client for clarifications, misstatements or non-conformities, intentional errors, or non-compliance with laws or regulations; and include details of any requests for further action.

* 1. Information, data management and control system

Assess the design and effectiveness of the information and data control system, considering:

1. The selection and handling of data and information on quantification of reductions or recirculations of materials.
2. The processes for collecting processing and consolidating data and information on reductions or recirculations of material.
3. The systems and processes that ensure the validity and accuracy of material reductions or material recirculations data and information.
4. The design and maintenance of the material reductions or material recirculations quantification information system.
5. Systems, processes, and personnel that support the material reductions or recirculations quantification information system, including data quality assurance activities.
	1. Audit team

Describe the personnel in charge of the validation and verification process.

|  |  |  |
| --- | --- | --- |
| Full name(s) | Role(s) or responsibility(ies) | Type(s) of activity(ies) developed\*  |
|  |  |  |
|  |  |  |

\*Specify who oversees the information review; on-site, remote, or mixed visit; technical review or preparation of this report.

Validation and verification results

* 1. PCEM components
		1. Information of the PCEM holder

|  |  |
| --- | --- |
| Full name: |  |
| Name of the institution (if applicable): |  |
| Roles or responsibilities: |  |
| ID: |  |
| Location: |  |
| Phone number:  |  |
| E-mail address: |  |

* + 1. Information from other institutional participants in the PCEM

|  |  |
| --- | --- |
| Full name: |  |
| Name of the institution (if applicable): |  |
| Roles or responsibilities: |  |
| ID: |  |
| Location: |  |
| Phone number:  |  |
| E-mail address: |  |

* + 1. PCEM description

Provide a brief description of the PCEM of no more than five hundred (500) words.

* + 1. Type of PCEM

Indicate the cycle, type of activity and type of material according to the following categories (delete the table after filling in this section):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Cycle |  | Type of activity |  | Type of material |
| 19: Biological |  | C10: Reject  |  | A. Plastic | 1A: PET |
| 20: Technological |  | C11: Rethink |  |  | 2A: HDPE |
|  |  | C12: Reduce |  |  | 3A: PVC |
|  | C20: Reuse/repurpose |  |  | 4A: LDPE |
|  | C21: Repair  |  |  | 5A: PP |
|  | C22: Restore  |  |  | 6A: PS |
|  | C23: Remanufacture |  |  | 7A: OTHER |
|  | C24: Recover  |  |  |  |
|  | C25: Recycling |  |  |  |

* + 1. PCEM location

Indicate whether the location, geographical and temporal limits of the PCEM presented in the Project Description Document (PDD) reflect reality. Check if the PCEM presents and meets all the georeferencing, graphic, and narrative aspects for the identification of its location.

* + 1. Holdership or right of use of the area, facility, or process

Review and indicate whether the support submitted corresponds to the ownership or property rights over the area(s), facility, or process where the PMEC will be implemented.

Characteristics and prerequisites for the start of the PCEM

Describe the existing conditions of the area(s), technologies, products, or services prior to the start of the PCEM.

Assessment of time limits

Indicate whether the dates presented, and their justification of the chronological plan are consistent and feasible, considering the provisions of the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy***.

1. Duration or lifespan of the PCEM (in years): review under what evidence this duration is justified.
2. Start date (day.month.year): check the consistency of this date with what is stated in the Protocol and the evidence provided.
3. PCEM accreditation period (day.month.year to day.month.year): check if approval is feasible. Describe under what evidence the accreditation period is granted.
4. Frequency of verification events, including the periods in which they are intended to take place: check if you have an organised plan to conduct this aspect.
	1. Management of the circular economy programme activities

**If it is not a Programme of Activities, please DELETE the whole of 3.2.**

If you include this section, add the relevant acronyms at the beginning of the document.

* + 1. Coordinating entity

Indicate the name of the Coordinating Entity (CoE).

* + 1. Management system of the CoE

Review the management system and its application to the Circular Economy Programme Activities (CEPA), if any changes were made to the PDD and their respective justification.

* 1. Grouped project

**If it is not a Grouped Project, please DELETE the entire 3.3.**

Indicate whether the PMEC is grouped, if so, review whether the areas, facilities or processes that comprise it, as well as the evolution of temporal aggregation is appropriate.

Check whether the PMEC added new areas or operational units during the monitoring period; if so, describe the areas or facilities defined by the new entrants.

* 1. Methodological elements
		1. Selected methodology

Review and evaluate the components of the selected methodology and indicate whether it is appropriate for the PCEM in accordance with the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy.***

Additionality

Verify whether the PCEM meets the additionality criteria presented in the selected methodology.

Project scope

Verify whether the scope of the project includes the aspects requested in the PDD.

No double counting

Check if the PCEM is registered (partially or fully) with other circular economy or materials standards or certification programmes; also check for potential overlaps with other circular economy initiatives, e.g., at the recollection stage. Check, when applicable, whether the PCEM migrates from other standards or certification programmes and whether it has been withdrawn or shows evidence of being in such a process.

Sources of material generation

Check that the sources of materials are consistent with the selected methodology.

Baseline scenario

Review and identify the baseline scenario determined for the PCEM and describe the criteria for validating it, including (as appropriate):

* Description of the planned linear process, including the most likely destination of the material if the PCEM is not conducted.
* Common material handling practice in the PCEM area.
* Probable future trends in material exploitation.
* Probable future trends in material generation.
* Data availability, reliability, and limitations.
* Other relevant information on present or future conditions, such as the standards or laws under which it is governed, technical, economic, socio-cultural, environmental, geographical, site-specific, and temporal assumptions or projections.
* In the case of a capacity increase, provide a list of the facilities, systems, and equipment in operation under the existing scenario prior to the implementation of the PCEM.

For more details, see the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy*** in its current version.

Project scenario

Review and identify how the material cycle would be transformed from linear to circular due to the implementation of the PCEM and the criteria to validate it, including (as appropriate):

* Description of the main manufacturing or production technologies, systems and equipment involved, including information on the age and average useful life of the equipment according to the manufacturer's technical specifications and industry standards, as well as existing and expected capacities, load factors and efficiencies.
* Types and levels of services (typically in terms of mass or energy flows) provided by the systems and equipment being modified or installed and their relationship, if any, to other manufacturing or production equipment and systems outside the PCEM boundary.
* For processes that are labour-intensive, indicate how much labour is required in each part of the process, type of labour (skilled or unskilled) and relationship to workers (contractual, service, per tonne delivered, etc.).
* Indicate whether the technologies, products, services, or measures to be implemented by the PCEM are appropriate to its objectives.

Deviations in the implementation of the PCEM with respect to the PDD

Indicate if the PCEM presented deviations in processes, machinery, or technologies, according to the type of PCEM, with respect to what is established in the PDD.

Methodological deviations

Identify the methodological deviations applied to the PCEM and describe the procedures performed to evaluate each deviation and whether it is approved. Detail if any deviations negatively impact the expected reduction or recirculation outcomes.

Accreditation period

Indicate whether the dates and justification for the accreditation period are consistent and feasible.

Quantification of materials in the baseline scenario

Assess whether appropriate criteria and procedures are in place to quantify the tonnes of materials generated in the baseline scenario (*exante* for the validation/*expost* for verification) according to the selected methodology.

Quantification of material reduction or recirculation in the project scenario

Assess whether appropriate criteria and procedures are in place to quantify the tonnes of material reduced or recirculated in the project scenario (*exante* for the validation/*expost* for verification) according to the selected methodology.

Leakage

Review and assess leakages generated (*exante* for the validation/*expost* for verification) by the PCEM and other than the ones identified in the PDD.

* + 1. Net material reduction or recirculation

Review and assess whether appropriate criteria and procedures are in place to quantify net material reductions or recirculations (*exante* for the validation/*expost* for verification).

* + 1. Reassessment of the baseline scenario

Review and assess whether the circumstances of the PCEM changed during the accreditation period, if so, the baseline scenario will no longer be valid, and a new assessment of the baseline scenario will be necessary.

* + 1. Natural disturbances and other catastrophic events

Review and assess whether natural disturbances (droughts, fires, floods, etc.) or catastrophic events (wars, vandalism, third party burnings, etc.) occurred during the implementation of the PCEM that altered what was proposed in the PDD.

1. PCEM status assessment

Assess any changes in risks and material discrepancy thresholds that may have occurred during the verification, and whether the high-level analysis procedures applied remain representative and appropriate.

Determine whether the evidence collected is sufficient and appropriate to generate a conclusion. If deemed insufficient, perform additional evidence collection activities. Check for material errors or discrepancies.

PCEM Monitoring plan

Identify the data or parameters to be monitored and describe the criteria for validating the designed monitoring system (i.e., process and schedule for obtaining, recording, compiling, and analysing the monitored data and parameters).

Review the proposed monitoring plan, especially the following elements:

* The list of measured or monitored parameters.
* The types of data and information, including units of measurement.
* The origin of the data.
* Monitoring methods (including estimation, modelling, measurement, calculation, and uncertainty approaches).
* Monitoring frequency.
* Monitoring roles and responsibilities, including procedures for authorisation, approval, and documentation of changes to recorded data.
* Controls including internal checking of input, transformation and output data, and procedures for corrective actions.

Provide an overall conclusion on the performance of the monitoring in relation to the requirements of the selected methodology and the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy***.

* 1. Responsible for PCEM monitoring

Review and indicate the person(s) or entity in charge of monitoring the PCEM.

* 1. Development of PCEM monitoring

Review and indicate the data or parameters that were monitored. Review the monitoring developed, especially the following elements:

* The list of measured or monitored parameters.
* The types of data and information, including units of measurement.
* The origin of the data.
* Monitoring methods (including estimation, modelling, measurement, calculation, and uncertainty approaches).
* Monitoring roles and responsibilities, including procedures for authorisation, approval, and documentation of changes to recorded data.
* Controls including internal checking of input, transformation and output data, and procedures for corrective actions.

Provide an overall conclusion on the performance of the monitoring in relation to the requirements of the selected methodology and the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy***.

1. Legal and documentary aspects
	1. Legal requirements

Review and assess whether the PCEM describes and justifies compliance with governing laws, statutes, and regulatory frameworks (local, regional, and national) that apply to the programme or project activity, including applicable environmental requirements and laws (in line with compliance with the No Net Harm principle) and the record of concrete PCEM actions, where applicable.

|  |  |  |  |
| --- | --- | --- | --- |
| **Rule or law** | **Type (legal, environmental, other)** | **Applicability/Compliance (full or partial)** | **Justification** |
|  |  |  |  |

* 1. PCEM documentation

Review and assess the supporting documentation demonstrating the compliance of the PCEM with the ***Global Zero Waste and Cercarbono's Protocol for Voluntary Certification of Circular Economy*.**

1. Stakeholder consultation

If applicable, assess whether the PCEM has complied with the stakeholder consultation outcome document and identify whether there have been any changes to the PCEM in areas, facilities or processes that modify what was agreed between the PCEM and the stakeholders.

1. Contributions to the Sustainable Development Goals of the United Nations

Review whether the PCEM applied the ***Tool to Report Contributions of*** ***Circular Economy Initiatives to the Sustainable Development Goals*** and assess the relevance of the SDGs related to the programme or project activity.

Information management

Review and describe the procedure used for data and information management and quality, including uncertainty assessment.

Conclusion of the validation and verification

* 1. Resolution of findings

Describe the process for the resolution of findings (corrective actions, clarifications, future actions, or other findings) raised by the VVB during the validation and verification.

Indicate the total number of corrective action requests, clarifications and future actions, and other findings raised during the validation and verification.

Provide a summary of each finding, including the issue raised, the responses provided by the client and the conclusion, and any resulting changes to the PCEM documents. If this item becomes too long, you can relate and annex your information in a complementary way.

Support and listing of information

Indicate where the information from the validation and verification process (prior to uploading to the EcoRegistry platform) is stored and listed, such as:

1. Validation and verification plan.
2. Monitoring report.
3. Evidence collection plan.
4. Evidence collection.
5. Requests for clarifications, misstatements and non-conformities arising from the validation and verification, and conclusions reached.
6. Communication with the client about material misstatements.
7. The conclusions reached and the opinions of the validator and verifier.

Validation and verification opinion

Write the validation and verification opinion independently based on the evidence collected during the process. If the opinion is favourable, in addition to the report, generate a duly signed validation and verification statement with the most relevant data from the validation and verification process.

* 1. Facts discovered after verification

The validator and verifier shall obtain sufficient appropriate evidence and identify relevant information up to the date of the validation and verification opinion. If the validator and verifier discover facts or new information that could materially affect the validation and verification opinion after the date on which it gave its opinion, the validator and verifier shall take appropriate action, including communicating the matter as soon as possible to the PCEM holder.

The validator and verifier may also communicate to other interested parties the fact that the confidence of the original opinion may be compromised given the discovered facts or new information.

1. References

List all references used in the development of the validation and verification report. All references should be available for consultation by Cercarbono, Global Zero Waste and EcoRegistry.

Document history (Joint Validation and Verification Report)

Indicate the full history of the Joint Validation and Verification Report, with correct and updated versions and edit dates, and include a brief description of the changes made from the previous version.

|  |  |  |
| --- | --- | --- |
| **Version** | **Date**  | **Comments or modification** |
| 1.0 | Day.month.year | Initial version. |
|  |  |  |

Template history

|  |  |  |
| --- | --- | --- |
| **Version** | **Date**  | **Comments or modification** |
| 1.0 | 23.06.2023 | Initial version. |

(Do not delete or alter this section, delete this instruction).

1. For the VPCE, materials are all waste materials that can be used. [↑](#footnote-ref-2)