



CEWASTE

Voluntary certification
scheme for waste treatment

ASSURANCE AND VERIFICATION MANUALS

DELIVERABLE 3.3



This project is received funding
from the European Union's Horizon 2020
research and innovation programme
under grant agreement N° 820859

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|-----------------------------|---|
| PROJECT: | Voluntary certification scheme for waste treatment |
| ACRONYM: | CEWASTE |
| GRANT AGREEMENT: | 820859 |
| FUNDING SCHEME: | Horizon 2020 |
| WEBPAGE: | http://www.cewaste.eu/ |
| WORK PACKAGE: | Work Package 3 |
| WORK PACKAGE LEADER: | Oeko |
| DELIVERABLE TITLE: | ASSURANCE AND VERIFICATION MANUALS (draft) |
| DELIVERABLE: | D3.3 |
| DELIVERABLE LEADER: | Oeko |
| VERSION: | 2.0 |
| STATUS: | Final Oeko |
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| Project Coordinator: | WRFA |
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| Deliverable Leader: | Oeko |
| Due date: | 31 December 2019 (Draft version submitted) |
| Date of submission: | After submitting a draft version in Dec. 2019, this revised version is submitted on 29 April 2021. |
| Dissemination level: | PU (Public) |

Table 1. Version History

| Ver. no. | Date | Reasons for release | Responsible |
|----------|------------|----------------------------|-------------|
| 1.0 | 12.12.2019 | Initial draft with content | YB |
| 2.0 | 29.04.2021 | Revised and final version | YB |

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ACRONYMS

| | |
|------|---|
| CRM | Critical Raw Material |
| EEE | Electrical and Electronic Equipment |
| ELV | End-of-life Vehicle |
| WEEE | Waste Electrical and Electronic Equipment |
| WP | Work package |

SUMMARY

The H2020-project CEWASTE aspires developing and testing a certification scheme with requirements enabling the recycling of Critical Raw Materials (CRMs) and valuable materials. In the third work package, the consortium has developed and defined an assurance system and related verification mechanisms that effectively ensure that take back systems, collection, transport and treatment facilities actually and reliably comply with current certification systems and the normative sustainability and traceability requirements defined in Work Package 2 in their daily operations. With reference to existing certification schemes, auditing standards and good practice guides for assurance and certification systems, Work Package 3 has developed:

- The assurance system including the verification mechanisms,
- Certification procedures, and
- Implementation guidelines, especially for verification mechanisms and auditing procedures

Task 3.3 of this work package was focused on the development of the assurance and verification manuals needed to support the operation of the assurance scheme. The processes, in terms of the rules for how assurance is to be performed, are already addressed in the deliverable of Task 3.1 (D3.1) and tools for the verification of compliance with the normative sustainability and traceability requirements defined in WP 2 are addressed in the deliverable of Task 3.2 (D3.2). The following deliverable only refers to manuals that provide additional guidance for the assurance and verification systems and an explanation as to how they have been developed. The manuals have been developed as an Excel tool, together with the checklist developed in Task 3.2.

The system developed in Work Package 3 (in the three tasks mentioned above) was used as a basis for the validation of the scheme in pilot audits carried out in Work Package 4.

1 INTRODUCTION

1.1 THE CEWASTE PROJECT

The CEWASTE project contributes to an improved recycling of valuable and critical raw materials (CRMs)¹ from key types of waste through the auditing and certification of traceable and sustainable treatment processes in the entire supply chain of secondary raw materials. CEWASTE addresses the specific challenge to secure the sustainable access to CRMs for the EU economy as well as objectives set by the EU action plan for the Circular Economy, the issue of illegal trade of wastes within the EU and to non-EU countries, and the need to support the development of environmentally and socially sound recycling systems globally.

Specifically, the project has developed, validated and launched a voluntary certification scheme for collection, transport and treatment facilities of key types of waste containing significant amounts of valuable and critical raw materials. To ensure a comprehensive approach and a robust result, the project was developed along the following six specific objectives:

- **Objective 1:** Understand existing recovery practice, standards and verification schemes related to valuable and critical raw materials and how these can be leveraged for CEWASTE.
- **Objective 2:** Leverage existing normative requirements to develop technical, sustainability and traceability requirements for the voluntary certification scheme.
- **Objective 3:** Develop an assurance system and related verification procedures that effectively ensure that facilities and raw material streams are compliant with sustainability and traceability requirements.
- **Objective 4:** Validate the new voluntary scheme through pilots with selected and committed stakeholders of the value chain.
- **Objective 5:** Ensure long term sustainability of the scheme, reflecting on the needs from existing governance mechanisms, and resulting in a roadmap addressing the amendments of new requirements or mechanisms needed.

¹ For the list of CRMs see https://ec.europa.eu/growth/sectors/raw-materials/specific-interest/critical_en - the current version was published in 2017

- **Objective 6:** Ensure a transparent stakeholder process that allows for broad acceptance and dissemination of the essentials of the scheme.

CEWASTE has delivered tangible results in the form of analysis of reports, a set of rules (normative requirements), related administrative and procedural mechanisms to ensure compliance with the rules, practical guidelines, and an implementation plan as outlined in detail in the work plan of the project's Grant Agreement. In addition, the project produced a series of recommendations for long-term sustainability of the scheme as part of these results.

CEWASTE did not develop the new voluntary scheme from scratch nor formally amend existing standards. In view of the two years implementation condition set by the call, the project has focused on developing the scheme based on the current developments in recovery technologies and on the existing normative landscape in the field of waste treatment and responsible sourcing of raw materials, while presenting a clear roadmap for necessary amendments of existing mechanisms and a large-scale roll-out of the scheme.

The CEWASTE consortium² developed the scheme until 15 April 2020.

1.2 PURPOSE OF THIS DELIVERABLE AND OVERVIEW OF WORK PACKAGE 3

Deliverable 3.1 describes an assurance system developed in this task and the framework that it sets for following tasks and for the conformity assessment of the CEWASTE standard in general. The deliverable specifies the general structure of the scheme and provides the rules as to how various processes are to be carried out. It also specifies rules as to the eligibility of individuals and/or organisations acting under certain roles in the scheme. For example, individuals acting on behalf of

² The owner of the scheme shall be determined at a later stage.

the scheme as auditors, organisations assuming the ownership or part of the management board, etc.). How such rules are to be updated from time to time and maintained is also addressed.

Deliverable 3.2 provides templates and documents to be applied as part of the verification procedures described in the scheme rules. These include templates for performing certain procedures, such as an audit plan template to be used by auditors when planning the assessment of the facility of an operator that has applied for certification or an audit template to be used by the auditors when verifying the compliance of the facility of an operator with the normative requirements of the scheme. A check-list tool is also included (together with the verification manual developed in Task 3.3) and provides the first level of support for auditors as to the basis for concluding on the compliance of an operators' facility with a specific requirement.

Deliverable 3.3 was developed subsequently to deliverables 3.1 and 3.2 and includes two manuals to further support the scheme. The assurance manual provides clear guidance on what protocols, procedures, documents, etc. would be considered as acceptable for the verification procedures established in the certification scheme. It aims to assist operators in complying with the CEWASTE standard and preparing for the certification (audit). The verification manual (merged with the checklist tool) assists the auditors (second-level) by providing more detail for the verification procedures and thus also helps to ensure a more harmonised application of the CEWASTE scheme and of the results of the various activities.

2 THE DOCUMENTS INCLUDED IN THIS DELIVERABLE

As explained in the introduction, this deliverable is comprised of two manuals that have been designed to support the various procedures developed as part of the assurance system in Task 3.1 and the tools developed as part of the verification scheme in Task 3.2. This includes an assurance manual and a verification manual. These documents have been developed for different actors involved in the certification process so as to provide additional guidance as to their role and activities in the certification process.

The **assurance manual** has been developed for operators that would like to certify their facilities (in whole or in part) against the normative sustainability and traceability requirements defined in WP 2. It can also be used by operators that would like to gain a better understanding as to these requirements so as to consider certification in the future. In this respect, the manual gives a general description of the certification process and provides clear guidance on what protocols, procedures, documents, etc. would be considered as acceptable for the verification of the different requirements.

The **verification manual** has been developed to support auditors in the process of certifying an operator against the requirements defined in WP 2. It provides some general background as to the typical waste streams to be certified and explanatory information for the different requirements with a view to ensure a more harmonised application of the verification procedures and subsequently of the results of these activities.

At the onset of this task, the consortium partners involved in auditing and certification activities were consulted as to the format of the manuals. This was aimed at understanding how such tools are used in practice by operators and by auditors.

The partners leading WP 4, also involved in this task, were also consulted with. On the one hand, this was aimed at ensuring that the manuals would be developed as additional guidance, avoiding possible repetitiveness with training materials to be developed in WP 4. In parallel, it was aimed at ensuring that the manuals could be used both in terms of format and in terms of content by the various actors. For operators participating in the WP 4 pilots, the manuals are to assist in preparation for the pilot audits, also giving a first basis for providing input as to the practicability of the requirements and their verification procedures. For auditors that have resumed the training the manuals should both allow preparation for an audit, in the case of new auditors, while also providing an informative basis for an auditor during the verification process, when more detail is needed to decide whether a facility is in conformity with a specific requirement.

In general, certification includes a few stages as illustrated in Figure 1 below. See also Figure 1: “*CEWASTE certification process flowchart*” of deliverable D3.1 in this respect.

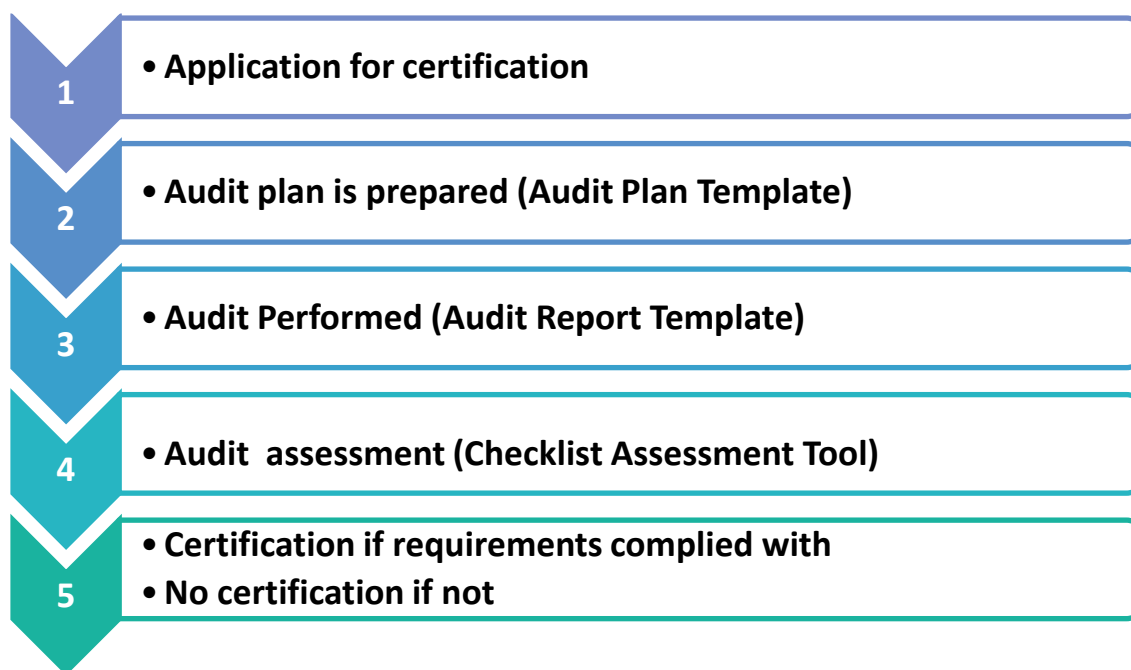


Figure 1. Stages of Certification

The assurance manual is targeted at enhancing the operators understanding of the requirements developed in WP 2, both so as to decide whether to apply for certification against these requirements (stage 1) as well as to prepare for the actual audit (Stage 3) or as guidance for establishing compliance where non-conformities that have been identified in the audit. The assurance manual is an Excel tool that is available on the CEWASTE Website under: <https://cewaste.eu/wp-content/uploads/2021/04/Assurance-tool-and-manual-for-operators.xls>.³

The verification manual is to be used by auditors both as preparation for the audit (prior to stage 3) as well as to support the assessment when additional data is needed to decide on whether a requirement is complied with or not (stage 4). The verification manual is an Excel tool that is available on the CEWASTE Website under: <https://cewaste.eu/wp-content/uploads/2021/04/Verification-tool-and-manual-for-auditors.xls>.³

The structure of both manuals is similar and is demonstrated in Figure 2 in terms of format. An explanation as to how the tool assists the user follows after the figure.

³ All related documents are available on the Library page of the CEWASTE website: <https://cewaste.eu/library/>

Figure 2. Example of the excel tool – snapshot of the technical requirements sheet of Verification manual for auditors

| Operator | Type of WEEE | Audit scope | No. | CEWASTE Section (V8) | Type of requirement | CEWASTE Requirement (V8) | Question ID | Audit question | Y | N | NO | NI | NS | NC | NC Type | Comment from auditor | Verification manual (For auditors) |
|---|--------------|-------------------|-------|------------------------------------|---------------------|--|-------------|--|---|---|----|----|----|----|---------|----------------------|---|
| All | all | CEWASTE only | 4.4.4 | Risk Mitigation | Other | The operator shall implement documented action plans (including timetable, responsibilities and activities) including risk mitigation measures that cover the activities in the scope of the CEWASTE certification. | Q4.4.4.0 | Has the operator implemented documented action plans including risk mitigation measures that cover the activities in the scope of the CEWASTE certification? | | | | | | | | | The documented action plans should include timetable, responsibilities and activities. |
| All | all | CEWASTE only | 4.5 | Monitoring | Other | Monitoring supports continuous improvement and aims to track progress against set objectives for each monitoring cycle as well as to demonstrate and report on environmental, working conditions related outcomes in an efficient, transparent and accountable manner. Operators shall maintain an adequate monitoring system by tracking compliance with the CEWASTE requirements of waste and its processed streams. This includes the tracking of: -Progress on process performance as planned in the "Management, Monitoring & Evaluation Plan (MM&E)"; -critical risk factors and related responses at least for the risk points where the accidental release of hazardous solid, liquid and gaseous effluents is possible (including during transportation, treatment and disposal). The operator shall have procedures in place to evaluate and control that its activities help improve CRM recovery, based on the key performance indicators set within the management system. | Q4.5.0.0 | Are there monitoring activities conducted to control the effectiveness of the measures undertaken by the risk assessment(s)? | | | | | | | | | The Auditor shall check that the monitoring plan is suitable for tracking compliance of the operator (its facilities and activities) with the applicable CEWASTE requirements in relation to the points specified in clause 4.5. |
| Treatment (Pre-treatment and final treatment) | all | CEWASTE + CENELEC | 4.5.1 | Downstream and upstream monitoring | High relevance | Downstream and upstream monitoring requirements are established in clause 4.4 of EN 50625-1. As for downstream monitoring, this covers the monitoring in which each party of the value chain is required to trace and document the compliance of the processing of waste and its streams by acceptors of the waste fractions it processes. <i>Refer to clause 4.4 of EN 50625-1</i> | Q4.5.1.1 | For any downstream treatment of WEEE and fractions, does the operator record the receiver of the waste and the performed treatments of the next stage in the value chain? | | | | | | | | | The auditor should ask for documents that record downstream monitoring of each fraction according to 4.4 of EN_50625-1 The information recorded on acceptors shall include the following details: name, address of treatment facility, treatment technology and permit issued by the national competent authority. |
| Treatment (Pre-treatment and final treatment) | all | CEWASTE + CENELEC | 4.5.1 | Downstream and upstream monitoring | High relevance | Downstream and upstream monitoring requirements are established in clause 4.4 of EN 50625-1. <i>Refer to clause 4.4 of EN 50625-1</i> | Q4.5.1.2 | Are there documents that record downstream monitoring of each fraction according to 4.4 of EN_50625-1 and records describing the determination of recycling and recovery rates prepared in accordance with | | | | | | | | | Ask the auditee how the recycling and recovery rates are calculated and compare this methodology with the one described in annex C of EN 50625-1. For EU countries, existing targets on recycling and recovery rates shall be met, and be part of the legal requirements applicable to the auditee (HRB). |

Note: To enhance the usability of the tool for auditors it also includes the checklist questions and texts for each of the requirements.



The excel format allows both operators and auditors to “filter out” requirements that are not relevant for their facilities, for example based on waste stream fraction or based on value chain stage. This is possible through using the filtering option in the applicability columns (Operators; Type of Waste).

The tool has also been designed with different sheets so that requirements are allocated into the following groups:

- Management – here guidance or explanatory information has been included for requirements that deal with the management system of a facility and that appear under clause 4 of the WP requirement document;
- Technical – guidance or explanatory information for technical requirements appearing under clauses 5 and 6 of the requirement document and addressing the collection, transport, storage, treatment and depollution of waste, have been collected under this sheet;

Additional sheets have been included to provide supporting information to the user. This includes:

- A general introduction about the CEWASTE scheme;
- A sheet for specifying general information on the specific audit for which the tool is being used (date, auditor, location, etc.);
- The assessment summary sheet, which compiles a list of requirements for which a non-conformity has been specified in a given audit;
- Supporting information on separate sheets such as the CEWASTE structure (clause structure of the requirements document); the diagram flow charts of the requirements in relation to the value chain; Annex I of the CEWAST requirement document (CRM and Valuable Materials, Key CRM Equipment and Components Targeted); Annex VII of CEWASTE (List of Critical Raw Materials for the EU (COM (2017) 490))

It is also possible to use the filter options to navigate to a specific requirement. The tool has been devised so that the requirement clause numbering and titles as well as the requirement text appear alongside the explanatory information that consists of the manual and thus allows the user both to check the specifics of the requirement as well as to better understand its meaning or implementation and compliance aspects. In the auditor’s verification manual, the explanatory information appears alongside the checklist entries. This can support the auditor during an audit through the provision of guidance information and clarification as to what level of compliance is considered compliance and in what cases a major or minor non-conformity is to be identified.