



# CEWASTE

Voluntary certification  
scheme for waste treatment

## TERMS OF REFERENCE

TERMS OF REFERENCE (TORS) FOR THE “CEWASTE  
PUBLIC CONSULTATION” (DRAFT V1.0)



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# 1 INTRODUCTION

The CEWASTE Certification Scheme is developed in the frame of the Horizon 2020 project Voluntary Certification Scheme for Waste Treatment (CEWASTE). The aim of this project is to develop a voluntary certification scheme for the recovery of valuable and Critical Raw Materials (CRM) from waste electrical and electronic equipment (WEEE) and waste batteries.

To achieve this goal, CEWASTE has developed a set of environmental, social, technical and governance requirements for collection, transport and treatment facilities dealing with the recycling of the WEEE and waste batteries. Based on these requirements, an assurance system and related verification mechanisms have been established to ensure that the facilities in the value chain reliably comply with the newly defined requirements. The project has taken stock of normative requirements defined in existing relevant guidelines and standards in the field of electrical and electronic waste treatment and responsible sourcing of raw materials. By identifying and assessing the gaps, CEWASTE has expanded the current guidelines and standards through proposed new requirements that have a focus on recovery of valuable and critical raw materials.

Developing a widely accepted and mature certification scheme demands a multi-stakeholder process including key experts through an open and transparent consultation process. To do this, CEWASTE has identified key experts and stakeholders and has created an Advisory Board composed of key European and international experts and has identified and developed a network composed of key actors and beneficiaries along the value chain. CEWASTE will actively engage with these experts and stakeholders and provide them with mechanisms for participation in the development process of the certification scheme. The current document provides guidance on the approach to this aspect of the project.

## 2 PURPOSE OF THIS DOCUMENT

In line with the credibility principles of the ISEAL Alliance Code of Good Practice for Setting Social and Environmental Standards<sup>1</sup>, this Terms of Reference (TORs) are aimed to provide the stakeholders with an overview of the main objective, scope and need for the CEWASTE

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<sup>1</sup> [https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL\\_Standard\\_Setting\\_Code\\_v6\\_Dec\\_2014.pdf](https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL_Standard_Setting_Code_v6_Dec_2014.pdf)

certification scheme. It will also describe how this certification scheme is being developed and how stakeholders across the value chain can participate in the consultation process.

The structure and content of this TORs are in line with the requirements of the ISEAL Alliance Code of Good Practice for Setting Social and Environmental Standards<sup>2</sup>. The TORs will be updated on a continuous basis, based on the feedbacks received from stakeholders during consultation process, the outcomes of the pilot tests and the resolutions agreed by the CEWASTE Consortium.

### 3 NORMATIVE REFERENCES

The CEWASTE certification scheme has taken stock of normative requirements defined in existing relevant guidelines and standards in the field of electrical and electronic waste treatment and responsible sourcing of raw materials. Among others, development of the CEWASTE normative requirements is based on the European Standards on Collection, Logistics and Treatment Requirements for WEEE (EN50625)<sup>3</sup> approved by CENELEC (European Committee for Electrotechnical Standardization) on 2014-01-27. Moreover, for some requirements, other standards or guidelines have been referenced (See Annex I for a complete list). Where the existing requirements were not sufficient to meet the CEWASTE objectives, new set of requirements have been developed.

The CEWASTE certification scheme supports the essential requirements of Directive 2012/19/EU (WEEE).

### 4 WHY IS THE CEWASTE CERTIFICATION SCHEME NEEDED?

The European Commission has identified a list of Critical Raw Materials that are vital to the high tech and low carbon industry in Europe. These materials need a special attention due to their economic importance and higher risk of supply interruption. Currently the CRMs in the EU economy is far from being circular and it is essential to improve legislative framework concerning process to facilitate the extraction of CRMs from secondary input flows and from key types of waste which include considerable amount of these materials. To support policy

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<sup>2</sup> [https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL\\_Standard\\_Setting\\_Code\\_v6\\_Dec\\_2014.pdf](https://www.isealalliance.org/sites/default/files/resource/2017-11/ISEAL_Standard_Setting_Code_v6_Dec_2014.pdf)

<sup>3</sup> [https://ec.europa.eu/environment/waste/weee/standards\\_en.htm](https://ec.europa.eu/environment/waste/weee/standards_en.htm)

actions and improve framework conditions, standardization activities have been considered as one of the essential steps.

A variety of credible normative requirements in the field of waste collection, transport and treatment and responsible sourcing of raw materials do already exist. These standards and legislation are mainly focusing on secondary raw materials in general and currently there are no specific normative requirements for recovery of CRMs.

By focusing on valuable and critical raw materials and addressing the technical, sustainability and traceability requirements for their efficient recovery from WEEE and waste batteries, the CEWASTE Scheme aims to facilitate the sustainable access to these metals for the EU economy. Standardized recovery practices will have positive socio-economic impacts and will support the improvement of framework conditions for sustainable development. Moreover, by developing criteria for more level playing field, the CEWASTE Scheme will contribute to a roadmap and conditions for framework, where more security for investments in advanced valuable and CRMS recovery technologies exists.

## 5 SUSTAINABILITY OBJECTIVES

The overarching sustainability objectives of the CEWASTE Voluntary Scheme are summarized below:

- To provide a practical framework to improve recycling of CRMs and secure sustainable access to CRMs for the EU economy,
- To improve transparency and traceability along the supply chain of these materials and to promote level playing field for fair competition,
- To enhance the environmental performance of the recycling operation throughout the end-of-life chain of waste containing valuable and CRMs in a global level,
- To improve working conditions and to have a positive impact on employee's occupational, health and safety conditions,
- To expand knowledge base and awareness around sustainable productions/use of resources,
- To improve collaboration and partnership between multiple stakeholders across the sector.

# 6 SCOPE

## 6.1 BENEFICIARIES

Beneficiaries of the CEWASTE certification scheme include a wide range of stakeholders. The key groups are operators engaged in the recycling of valuable and CRMs from WEEE and waste batteries covering the entire end-of-life value chain. Electric and electronic equipment manufacturers, retailers, Extended Producer Responsibility Organizations (take-back schemes), municipalities and traders dealing with the secondary metals can benefit from the implementation of the Scheme. Standard setting organizations, certification schemes, auditing companies, policy makers and regulatory bodies can use the CEWASTE Certification Scheme as a framework for developing standards, laws, policies or regulation. Non-Governmental Organizations (NGOs) that organize capacity building activities on environmental and socio-economic impacts of secondary metal production can use this Scheme for the impact evaluation.

## 6.2 USERS

Users are considered as sub-group of beneficiaries and they include operators and facilities involved in the collection, pre-treatment and final treatment including related handling, sorting and storage of WEEE and waste batteries, seeking CEWASTE certification.

## 6.3 PRODUCTS AND MATERIALS WITHIN THE SCOPE

The CEWASTE certification scheme focuses on WEEE containing valuable and CRMs as well as discarded batteries from WEEE and ELVs. The Key CRM Equipment (KCEs) being considered in the scope of the CEWASTE Certification Scheme are:

- Cathod ray tube (CRT) monitors and televisions (Bi, Co)
- (Compact) fluorescent lamps (Eu, Tb, Y, Ce, La)
- Household appliances such as washing machines (Dy, Nd)
- Temperature exchange equipment (TEE) such as refrigerators and air-conditioning equipment (Nd)
- Mobile phones excl. batteries (Sm, Pr, Au, Ag, Bi, In, Pd, Sb)
- Laptops excl. batteries (Dy, Nd, Pr, Au, Ag, Bi, Pd, Sb, In)

- Tablets excl. batteries (Ag, Au, Bi, Pd, Sb, In)
- Desktop computers & professional IT equipment (Sm, Dy, Tb, Pr, Nd, Au, Ag, Bi, Pd, Sb)
- Lead-acid waste batteries (Sb)
- Lithium-ion waste batteries from electronic vehicles including those from e-bikes (Co)
- Battery electric vehicle (BEV), (plug-in) hybrid electric vehicle (P)HEV (Co)

CRMs are concentrated in the following components: magnets, fluorescent powder, printed circuit board and batteries.

## 6.4 VALUE CHAIN

The CEWASTE scheme will cover the following sectors in the value chain of WEEE and waste batteries:

- Collection: gathering of WEEE after disposal by either consumers or companies, including the preliminary sorting and storage of WEEE (before transport);
- Logistics: planning, implementing and controlling of transportation, handling, preliminary storage and/or sorting of waste from the point of origin to point of delivery;
- Pre-treatment: may include preparation for reuse, manual or mechanical pre-sorting, depollution, shredding and sorting of output fractions;
- Final treatment: refining of secondary materials from the output fractions of pre-treatment, through (pyro/hydro)metallurgical or chemical processes;
- Recycling: any material recovery operation by which waste materials are reprocessed into products, materials or substances.

## 6.5 GEOGRAPHICAL SCOPE

This Scheme does not have a specific geographical scope and aims to cover the normative requirements in a global level. To achieve this objective, in parallel to the pilot tests in Europe, the CEWASTE Scheme will be validated in three countries outside Europe (Turkey, South Africa, Colombia) to test the feasibility of the proposed approach in different geographical context.

## 7 RISK ASSESSMENT

For the implementation of the CEWASET certification scheme the following risks and mitigation measures have been considered:

*Table 1. Risks and mitigation measure associated with the development of the CEWASTE Certification Scheme*

Risk	Mitigation measures
Low initial interest in the CEWASTE scheme from volunteers and potential early adopters due to increased operation prices	Targeted communication activities and awareness raising about the benefits of implementing this scheme. Incentives by the governments can lead to a higher rate of acceptance.
Low initial interest in implementing the scheme due to its focus and dependency on European standards and regulation	Through pilot tests, the proposed requirements and assurance system will be tested in different geographical context and can be adjusted according to the local requirements.
Low interest from potential adopters due to high cost of certification process	Set financial incentives for the early adopters by the Member States. Promotion of a phased approach for the certification process.
Capability of bridging the voluntary approach to a legally binding status to exploit its full potential	Support from Member States to implement the requirements of the scheme or to approve an implementation act to make them mandatory
Drop of market prices of natural resources	Develop business models for adopting to price variations.
Development of new technologies for recovery of valuable and CRM and introduction of new set of equipment which have not been in the scope of the CEWASTE Scheme	Regular review and revision of the requirements

## 8 DEVELOPMENT PROCESS

The first draft of the Certification Scheme is developed by the CEWASTE Consortium which includes key partners with relevant expertise in the field of e-waste collection and treatment, critical raw materials as well as developing standards and verification schemes (Annex II – CEWASTE Consortium Partners). The proposal for developing this Scheme was formally accepted by the European Commission (Horizon 2020 Programme) in October 2018 and the project was launched in November 2018.

Before starting with developing normative requirements, a baseline and gap analysis was conducted to identify Key CRM Equipment (KCEs) with sufficiently high concentration and processing technologies enabling the recycling of CRMs. Moreover, the existing normative requirements such as legislation, standards and their certification schemes applicable to the KCEs were mapped and those that could be referenced and used for CRM recovery were identified. The result of the baseline analysis revealed that the European Standards on Collection, Logistics and Treatment Requirements for WEEE (EN 56 50625) approved by CENELEC (European Committee for Electrotechnical Standardization) on 57 2014-01-27, is the most comprehensive standard relevant for the purpose of the CEWASTE project.

Where the existing requirements were not sufficient to meet the CEWASTE objectives, new set of requirements were developed. These requirements include governance, environmental, social and technical requirements for collection, logistic and treatment facilities of WEEE and waste batteries with sufficiently high concentration of valuable and CRMs.

In addition to the normative requirements, an assurance system and related verification mechanisms has been developed to effectively ensure that collection, transport and treatment facilities reliably comply with the new normative requirements system was developed.

To ensure a systematic stakeholder participation, a working draft of the CEWASTE Certification Scheme was presented in a face-to-face meeting and will be published online for two rounds of public consultations (See section 9). In the meantime, the validity and feasibility of the CEWASTE scheme will be tested through 20 pilot audits.

Based on the feedbacks received from stakeholders during consultation process, the outcomes of the pilot tests and the resolutions agreed by the CEWASTE Consortium, the certification scheme will be reviewed and revised.

## 9 PUBLIC CONSULTATION

The first working draft of the CEWASTE normative requirements and verification system was presented to the experts and related stakeholders (including CEWASTE Advisory Board members) in a physical meeting in October 2019 in Geneva. After evaluating and integrating the comments, a revised version of the document will be published online (on CEWASTE website<sup>4</sup>) for two rounds of public consultations. The first round of online consultation will

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<sup>4</sup> <https://cewaste.eu/>

include at least 60 days for comment submissions and the second round will take at least 30 days. The online consultations are planned for December 2019 and June/July 2020.

Consultation is open to public and participation is based on a voluntary basis. The CEWASTE project team invites stakeholders from different parts of the value chain to contribute to the consultation process with the aim of getting responses from those with a specific interest in the subject matter and with a wide geographic spread so that opinion is received from informed participants across many countries.

During public consultation various communication strategies will be implemented to raise awareness and engage a wide range of stakeholders. Direct outreach to the CEWASTE Advisory Board and the Stakeholder Network (those stakeholders who have registered to the project's network) will be carried out to support the awareness raising process.

## 10 HOW IS STAKEHOLDER INPUT USED?

For submission of comments in the public consultation round following rules apply:

- Participants are asked to provide their name, country, organization, sector and contact data. Providing information about their role in the organization is optional.
- Participant's personal data will be recorded by the CEWASTE Project Manager and will not be shared with third parties or be publicly available in project reports and communication materials without consent. An informed consent form, explaining the use of personal data will be available as part of the consultation documentation.
- A feedback form (spread sheet) will be provided to the participants in which they are expected to enter their comments as well as their personal data.
- After the consultation has ended one on one communication with stakeholders who have submitted their comments might have to be held for issues where further clarifications or discussion is needed.
- After each consultation round, the CEWASTE Project Team will compile comments and will prepare a summary table including all comments and information about how each comment has been addressed. This summary will be publicly available on the CEWASTE website and will be sent to all parties that submitted comments. The table will also include the results of the physical meeting. Only if it is confirmed by a participant, his/her personal data will be added to the comment's table.

- Participants may contact the CEWASTE Project Manager if further clarification about the results of the consultation is needed ([info@cewaste.eu](mailto:info@cewaste.eu)).

## 11 DECISION MAKING

The decision-making body for the development of the CEWASTE certification scheme is the CEWASTE Management Committee, composed of one representative from each Consortium party. Decision making within this group shall be by consensus.

Decisions about the comments provided by the stakeholders, will be made based on the agreement and compromise of all Consortium parties. The CEWASTE Project Manager will be responsible to determine when consensus of the parties has been reached on a particular item. When consensus is not achieved within the Management Committee, the issue will be raised to the CEWASTE Advisory Board.

## 12 REVIEW AND REVISION

Based on the information collected from stakeholder input, pilot results, as well as new knowledge and practices, the normative requirements identified in the CEWASTE scheme shall be reviewed every five years. If the review concludes that changes to the scheme and the related documents are needed, then the revision process will be applied.

It is noteworthy that the CEWASTE certification scheme is developed in the frame of a two-year project (2018-2020) funded by the European Commission. Therefore, review and revision process will depend on the continuation of the project or the future owner of the Scheme.

## 13 GRIEVANCE MECHANISM

The CEWASTE Management Committee will make sure to provide a transparent mechanism for stakeholders to raise their concerns and complaints. The stakeholders may contact the CEWASTE Management Committee to:

- Raise their concerns related to the process of developing the CEWASTE Certification Scheme (procedural complaints) and the way their comments have been addressed. This will be done based on a publicly documented complaints resolution mechanism.

- Raise their complaints about the content of the documents (substantive complaints) and the way their comments have been addressed in the review and revision process.
- Report or complain about any misuse of the documents developed in the frame of the CEWASTE Scheme.
- Report or complain about any misuse of the personal data.
- Raise concerns about misrepresentation or infringement of these TORs.

## 14 PUBLIC COMMUNICATION

The Management Committee will make sure to make the following items publicly available on the CEWASTE website:

- An updated summary of the process, including a timeline for the publication of the working drafts of the Certification Scheme and the start/end of the public consultations;
- The updated working draft of the relevant documents;
- All governance documents related to the process including this TORs.

# ANNEX I – COMPLETE LIST OF THE NORMATIVE

## REFERENCES

- CLS/TS 50625-3-2 Collection, logistics & Treatment requirements for WEEE - Part 3-2: Technical specification for de-pollution – Lamps
- CLS/TS 50625-3-3 Collection, logistics & treatment requirements for WEEE - Part 3-3: Specification for de-pollution - WEEE containing CRTs and flat panel displays
- CLC/TS 50625-4, Collection, logistics & treatment requirements for WEEE - Part 4: Specification for the collection and logistics associated with WEEE
- CLC/TS 50625-5, Collection, logistics & Treatment requirements for WEEE - Part 5: Specification for the final treatment of WEEE fractions
- EN 50625-1, Collection, logistics & Treatment requirements for WEEE - Part 1: General treatment requirements
- EN 50625-2-1, Collection, logistics and treatment requirements for WEEE - Part 2-1: Treatment requirements for lamps
- EN 50625-2-2, Collection, logistics & Treatment requirements for WEEE - Part 2-2: Treatment requirements for WEEE containing CRTs and flat panel displays
- EN 50625-2-3, Collection, logistics & treatment requirements for WEEE - Part 2-3: Treatment requirements for temperature exchange equipment and other WEEE containing VFC and/or VHC
- European Directive on Industrial Emissions (Directive 2010/75/EU) and the Best Available Techniques Reference Documents as well as national regulations
- UNEP (2003). Technical Guidelines for the Environmentally Sound Management of Waste Lead-acid Batteries (Basel Convention series/SBC No 2003/9)

## ANNEX II – CEWASTE CONSORTIUM PARTNERS

- World Resources Forum Association (WRFA)
- Oeko Institute (Oeko):
- Sofies SA (Sofies) – including Sofies UK and Sofies-EMAC as Linked Third Parties
- United Nations University (UNU)
- WEEE Forum (WF) – including ECODOM and AMB3E as Linked Third Parties
- Austrian Standards International (ASI)
- European Electronics Recyclers Association (EERA) – including Coolrec, Umicore, KMK Metals, Relight and Stena as Linked Third Parties
- European Environmental Citizens' Organisation for Standardisation (ECOS)
- SGS Fimko