CERA – System

A Certification System for Sustainable Production and Processing of Raw Materials

Overview
Overview CERA

Our Project Team consists of universities, institutes and independent audit and consulting companies.

PARTNERS

Mining Certification Proof of Origin

Chain of Custody Market Entry Blockchain
Overview CERA

ADVISORY BOARD

An international Advisory Board supports the project team and brings aspects into the discussion.
CERA Uniqueness

Situation: Existing certification schemes
• Not holistically applicable to all raw materials and fossil fuels.
• Missing global scale.
• Small-scale mining (ASM) or recycling is often not considered.

The CERA standard closes this gap by being a holistic certification scheme that is
• applicable to the entire value chain from greenfield to consumer
• applicable on a global scale, all mining-related operations, all sizes of operation and all raw materials,
• introduces mechanisms to ensure reliability in the Chain of Custody.
The CERA system consists of four different Sub-standards that look at different aspects but build on each other and are optimized for the value chain actors. These are the:

- Readiness Standard (CRS)
- Performance Standard (CPS)
- Chain of Custody Standard (CCS)
- Final Product Standard (CFS)

The overall system leads to certification of the complete mineral resources & recovery chain.
CERA Structure and Labeling

CERA Performance Standard (CPS)

Process

- Exploration
- Mining
- Processing
- Refining
- Consumption

Output

- Deposits
- Run Of Mine
- Concentrate
- Raw Materials
- End Products

Recycling
CERA – 4 Standards in 1 System

1. CERA Performance Standard (CPS) – published in April 2019

The Performance Standard certifies a facility or sequence of operations.

The standard defines a set of minimum criteria, which every operation in the upstream supply chain have to fulfil.

The individual aspects of the respective minerals or processes are taken into account.
The Chain of Custody Standard refers to the mining product. The standard aims to provide criteria for appropriate management systems for a complete traceability, that guarantee a chain of custody of sustainably extracted raw materials. The standard will also include ASM and recycling through specific approaches.
CERA Structure and Labeling

CERA Performance Standard (CPS)

CERA Chain of Custody Standard (CCS)

CERA Final Product Standard (CFS)

Process

Exploration → Mining → Processing → Refining → Consumption

Deposits → Run Of Mine → Concentrate → Raw Materials → End Products

Output

Recycling

CERA Certification of Raw Materials
4. CERA Product Standard (CFS)

The CERA Product standard certifies the end product that the consumer ultimately purchases.

For the CFS the former standards CPS and CCS are required.

The assignment of the standard is indicated by a product label. (→ Label on Final Product)
CERA Readiness – Standard (CRS)

Overview
Status Quo 1/2

Situation:

• Increasing demand of OEM, consumer as well as financial and trade sector for sustainable raw materials production.

• Pressure on value chain actors handling with raw materials regarding sustainable sourcing.

• Insufficient harmonization of already existing evaluation standards with Agenda 2030.

• Missing clear, minimal sustainability criteria within the evaluation phase.
Results:

- Fragmented market of evaluation schemes that are not applicable with the required sustainability in mining.

Within **CERA** system a comparable standard with clear criteria is defined that is considered during the e.g. feasibility studies and mine planning to ensure sustainable sourcing from the beginning.

More over **CERA** tries to contribute in:

- Harmonization. Linking the SDG´s with already existing standards and add missing aspects.
- Raising acceptance in financial and trade sector by considering their demands.
CERA Readiness Standard (CRS)

**Process**
- Exploration
- Mining
- Processing
- Refining
- Consumption

**Output**
- Deposits
- Run Of Mine
- Concentrate
- Raw Materials
- End Products

Recycling

**Deposits**
- Run Of Mine
- Concentrate
- Raw Materials
- End Products

Recycling
3. CERA Readiness Standard (CRS)

The CERA Readiness standard certifies the companies that are executing feasibility studies.

The Readiness Standard defines binding sustainability minimum criteria to be considered before the extraction of a deposit.

Concretized evaluation from resources to reserves and it is taken into account when preparing e.g. feasibility studies.
The aim is to exclude an arbitrary, subjective assessment with regard to sustainability and to replace it with clear evaluation.

**Modifying Factors:**

- Mining
- Processing
- Metallurgical
- Infrastructure
- Economic
- Marketing
- Legal
- Government
- Environment
- Social

Clear Classification of sustainable aspect within the **CERA Performance (CPS)** and Readiness **Standard (CRS)**
The Modified Factors are covered by three sustainable aspects within the CERA Performance Standard (CPS).

Modifying Factors:
- Mining
- Processing
- Metallurgical
- Economic
- Government
- Environment
- Social

**ENVIRONMENTAL RESPONSIBILITY**
- Emission & Waste, Resource & Energy use, Biodiversity

**SOCIAL RESPONSIBILITY**

**CORPORATE GOVERNANCE**
- Legal Compliance, International Best Practice, Business Integrity, Stakeholder Involvement, Supply Chain Due Diligence, Complaints and Grievance Mechanism, Management Approach
The CRS-system modify and extend the existing evaluation tools of resources to reserves.

Modifying Factors:
- Mining
- Processing
- Metallurgical
- Economic
- Government
- Environment
- Social

Within the CRS the impacts on the three sustainability aspects in mining are further categorized into:

- **Space**
  - Location, Region, Country, Global

- **Time**
  - Short-Term, Mid-Term, Long-Term, Eternal
You are welcome to become part of CERA! Join us as

• Member of the Advisory Board (society, politic and industry)
• Partner for pilot phase

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