

Factsheet - CERA 4in1

TÜV NORD CERA 4in1 at a glance

TÜV NORD CERA 4in1 system is the first and so far only certification concept that proves sustainable development along the entire mineral raw material value chain – from exploration, through extraction and processing, manufacturing up to the end products.

CERA 4in1 targets all kind of minerals, everywhere in the world and is applicable to any size of enterprise.

Which standards are part of CERA 4in1?

CERA 4in1 divides the raw materials value chain into four separate standards:

- Exploration & mine development: CERA 4in1 Readiness Standard (CRS)
- Extraction & Processing: CERA 4in1 Performance Standard (CPS)
- Supply chain: CERA 4in1 Chain of Custody Standard (CCS)
- End products: CERA 4in1 Final Product Standard (CFS)

What are the benefits of CERA 4in1?

- Reduction of insurance and financing risks due to improved ESG performance
- Readiness for and compliance with actual and upcoming legislation
- Reduced supply chain risks
- Market advantages, e. g. brand differentiation, consumer recognition for responsible products
- Compliance with stakeholders' expectations: civil society, customers, banks, stock exchanges etc.
- Improved or sustained community involvement and consultation to obtain and maintain Social License to Operate

Who was involved in the development of CERA 4in1?

The CERA 4in1 project has been in development since 2015 by TÜV NORD GROUP, more precisely by its experts in certification TÜV NORD CERT and its experts in mining DMT, an international independent engineering and consulting company headquartered in Germany. In 2017, a formal project consortium, partly funded by the European Union via the EIT Raw Materials, was formed and took care of the further development. The CERA 4in1 project consortium has been drawn from some of Europe's leading raw materials research institutions, academia, as well as engineering and consulting service providers including: DMT, Leiden University in the Netherlands, LTU Business, Research Institutes of Sweden, TÜV NORD CERT GmbH, University of Leoben in Austria. CERA's Advisory Board includes: EBRD, Euromines, EU Joint Research Centre (for the first standard), Siemens, United Nations ECE, University of Southern Denmark, and Volkswagen. In 2021, the project was completed with draft versions of the certification system and the CPS standard. From 2021 to 2023, the certification system and the CPS were developed to market maturity by TÜV NORD GROUP.

Future outlook

Since 2023, the ongoing development of the not yet launched three standards CRS, CCS and CFS takes place within the EU-funded research consortium MaDiTraCe. The **market launch** of these standards is **scheduled for 2024 to 2026**.

What is MaDiTraCe?

MaDiTraCe is an EU-funded project, which focuses, among other things, on the further development of CERA 4in1 to market maturity and aims to reinforce the transparency, reliability, and sustainability of complex critical raw material supply chains. The project runs until 2025 and is supported by many strong and international partners, including BRGM, CEA, EIT Raw Materials, European Lithium Institute, Leiden University, Metso, Microsoft, Outotec, Rare Earths Norway, Stellantis, TÜV NORD GROUP, United Nations Economic Commission for Europe, and many more.

Factsheet - CERA 4in1 Performance Standard (CPS)

TÜV NORD CERA 4in1 Performance Standard (CPS) at a glance:

CPS is one of four standards of the certification scheme CERA 4in1 and covers the areas mining, processing, smelting and refining. It helps companies of all sizes worldwide to meet ESG requirements for all mineral raw materials in a structured and step-by-step approach and certifies a facility (e.g. mine site)

What are the benefits of CPS?

- Cost reduction: efficient production, reduced costs for environmental and social damages, reduced insurance costs
- Increased attractiveness for investors/partners/clients: Competitive advantages, access to unique markets
- Improvement of brand image: positioning as more sustainable and responsible partner
- Risk minimization: social license to operate, ensured credibility for stakeholders, reduced supply chain risks
- Legal certainty: preparation for legal compliance, acting as reliable business partner

What is characteristic about the CPS certification process?

The well-designed, holistic certification standard covers the complete scope and ensures certification for:

- all sizes of enterprises
- all locations
- all mineral raw materials

Structured certification process prevents overburdening of the companies during certification through:

- step-by-step implementation of standard requirements considering the ISO 9001 and 5-step OECD Due Diligence Guidance
- a standardized audit process according to ISO 19011

Which regulations and standards are considered by the CPS?

CPS requirements consider international legislation, guidance and sustainability standards such as:

- Supply Chain Due Diligence Act
- OECD Due Diligence Guidance for Responsible Supply Chains of Minerals from Conflict-Affected and High-Risk Areas
- OECD Due Diligence Guidance for Minerals - 5-Step Framework for Upstream and Downstream Supply Chains
- ISO 9001
- ILO Conventions 87, 100, 105, 138, 182
- IRMA
- ASI
- TSM and may others

How does the CPS assess the sustainability of a project?

CPS defines for this purpose a set of minimum criteria for every operation according to ESG principles. All in all, over 140 ESG criteria are considered and are evaluated meeting the individual aspects of the respective mines, minerals and processes. This individual approach prevents an overburdening of the company at any time.