CERATIZIT's road to net-zero greenhouse gas emissions

SBTi approved goals and measures to reach them

CERATIZIT is a high-technology engineering group specialised in cutting tools and hard material solutions.

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CERATIZIT Achieves SBTi Validation for Science-Based Net-Zero Targets

CERATIZIT is proud to announce that the Science Based Targets initiative (SBTi) has officially approved our near- and long-term science-based emissions reduction targets. This validation confirms that our decarbonisation pathway is aligned with the SBTi Net-Zero Standard and the goal of limiting global warming to 1.5°C.

Our science-based net-zero target reflects CERATIZIT's commitment to deep and rapid emissions reductions across our entire value chain, prioritizing direct decarbonisation in line with climate science.

Near-Term Target

CERATIZIT commits to reduce absolute scope 1, 2 and scope 3 (upstream and downstream investments) GHG emissions 54% by FY2030 from a FY2020 base year.

Long-Term Target

CERATIZIT commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by FY2040 from a FY2020 base year.

Overall Net-Zero Target

CERATIZIT commits to reach net-zero greenhouse gas emissions across the value chain by FY2040.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

BUSINESS AMBITION FOR 1.5°C

The Science Based Target initiative (SBTi) is a collaboration between the Carbon Disclosure Project (CDP), the United Nations Global Compact (UNGC), World Resources Institute (WRI) and the WorldWide Fund for Nature (WWF). The initiative defines and promotes best practices in science-based target setting and independently assesses companies' targets for consistency with the level of decarbonization required according to the latest science.

CERATIZIT Decarbonisation Plan (Road to net-zero until 2040)

Objective

Achieve net-zero greenhouse gas (GHG) emissions by 2040 in alignment with the Science Based Targets initiative (SBTi) and the 1.5°C climate pathway.

Emissions Baseline, Scope, and Monitoring

- Base Year: Comprehensive GHG inventory covering Scope 1, 2, and 3.
- Extended Scope: Includes additional emissions from scope 3 categories for full value chain accountability over the years.
- Annual emissions tracking against SBTi-aligned targets.
- Transparent reporting of actual status vs. ambition using key performance indicators (KPIs). performance indicators (KPIs).

Targets and Coverage

2025

Voluntary Short-Term Target

- 35% absolute reduction by covering emissions from Scope 1, 2 and 3 upstream categories until the factory gate.

2030

Near-Term Target

- 54% absolute reduction by covering emissions from Scope 1, 2, and 3 (upstream and downstream investments).

2040

Long-Term Target

- Net-zero emissions across all scopes and value chain (90% absolute reduction).
- Circular economy integration and full product lifecycle decarbonisation.

Reduction Measures

Achieved

- Energy efficiency upgrades, process optimization.
- Procurement of electricity from renewable sources.

Planned

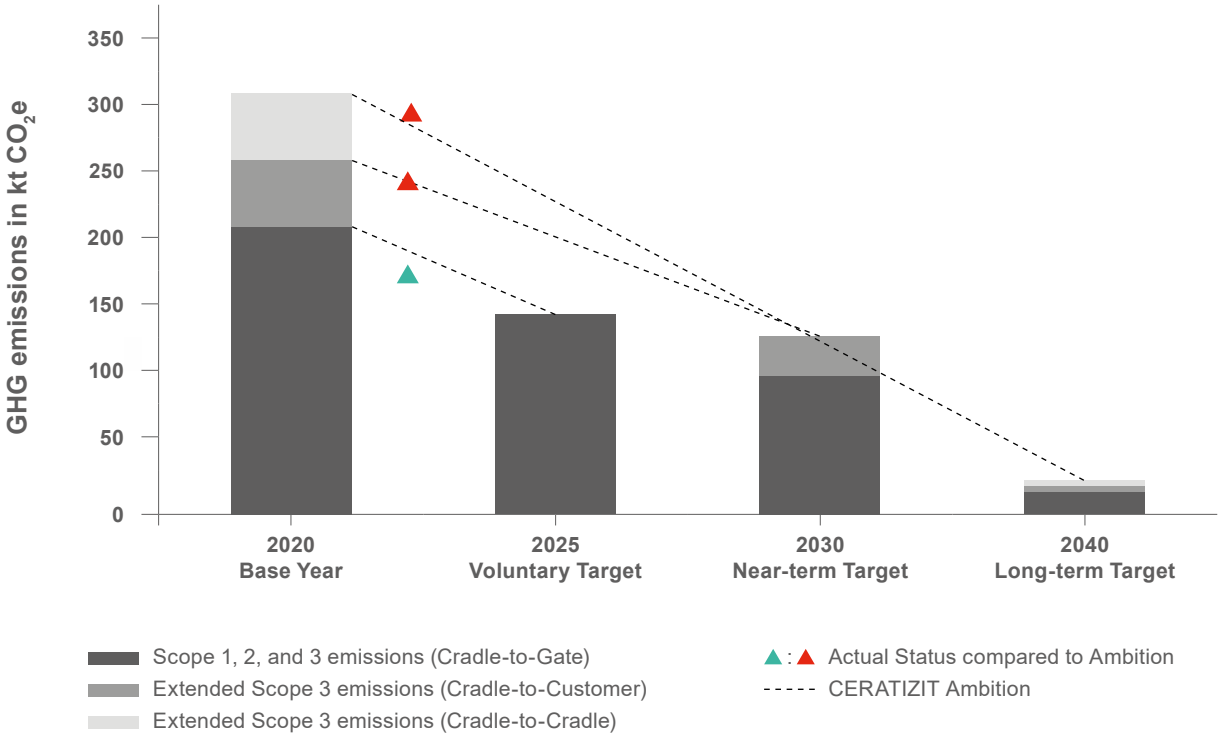
- Electrification of production processes.
- Low-carbon logistics and transportation.
- Extension of supplier decarbonisation programs by low-carbon chemicals, raw materials and industrial gases.
- Product redesign for circularity.

Undefined (Under Evaluation)

- Engagement with downstream business partners.
- Inspiring cross-sector decarbonisation efforts by transparently disclosing data and taking action.

CERATIZIT Decarbonisation Plan

The graphic illustrates **greenhouse gas (GHG) emissions in kt CO_2e** from **base year 2020 to net-zero goal year 2040**, incorporating **CERATIZIT's** emissions reduction strategy.



This visualization helps track progress toward emissions reduction goals, showing both historical data and future projections, along with the company's strategy for achieving its climate targets.

Measures to reduce greenhouse gas emissions

CERATIZIT has implemented a structured decarbonisation strategy, achieving a reduction of 48 kt CO_2e through energy efficiency, renewable energy adoption, and electrification of natural gas-based systems.

Looking ahead, the company plans to reduce an additional 124 kt CO_2e by expanding these efforts and introducing fossil fuel alternatives, as well as phasing out or modifying carbon-intensive supplies, products, and processes. This comprehensive approach supports CERATIZIT's validated science-based targets and its alignment with the SBTi Net-Zero Standard.

Achieved Measures (48 kt CO_2e reduced)

Energy efficiency and consumption reduction

- Solar parks installations at our production facilities
- High efficient heat supply systems
- Investments in energy efficient buildings

Transition toward low-carbon supplies

- Procurement of Transition to renewable energy in own operations
- Procurement of low-carbon industrial gases

Electrification of natural gas-based equipment

- Replacement of natural-gas furnaces by electrical ones
- Replacement of natural-gas heating units by electrical ones

Material efficiency projects

- Direct reuse of production returns
- Increase of share of raw material from low-carbon recycling routes

Planned Measures (124 kt CO_2e reduction expected)

Energy efficiency and consumption reduction

- Mechanical vapor recompression for energy efficient crystallisation
- Water-to-water heat pump installations for building heating
- Renovation of buildings by thermal insulation and high-energy efficient heating or ventilation technologies

Alternatives to fossil fuels

- Transition to e-fuel, bio-fuel or low-carbon-H_2 fuel technologies
- Pyrolysis as a low-carbon technology for H_2 generation
- Decarbonize employee commuting

Electrification of fossil fuel-based equipment

- Electricity-based steam generation
- Expand the share of electrified furnace and heating equipment

Transition to renewable energy in investments

- Engage shareholder to decarbonize the electricity supply of shared companies

Phase-out, substitution, or modification of:

Supplies

- Substitution of auxiliary materials and chemicals by low-carbon supplies
- Extent the scope of purchasing low-carbon raw-materials and industrial gases
- Decarbonize subcontractors and business partners
- Implement a comprehensive low-carbon transportation of goods

Products

- Phase-out of ore-based products
- Intensify circular economy models by offering secondary raw material return options and benefits

Processes

- Further increase and secure a high share of raw materials from low-carbon recycling pathways
- Research programs to decarbonize energy-intensive production processes

Decarbonisation Through Smart Procurement and Local Initiatives

Targeted procurement strategies and site-level innovations are working hand in hand to accelerate the company's decarbonisation journey.

Decarbonising GTP's Tungsten Powder Production

Global Tungsten & Powders (GTP), part of CERATIZIT since 2021, is a key supplier of high-quality tungsten powders and components. Due to its energy- and chemical-intensive processes, GTP accounts for one third of CERATIZITs total GHG emissions.

In 2023, GTP launched a sustainability program to reduce its carbon footprint and support CERATIZITs net-zero 2040 target. A cross-departmental initiative identified key decarbonisation levers, including alternatives to natural gas and chemical recycling. These were developed into two strategic programs: an infrastructure track supported by external consultants and a manufacturing track driven by internal R&D.
To further reduce upstream emissions, CERATIZIT aims for a tungsten recycling rate of 90% annually. These efforts not only decarbonise GTP's operations but also lower the footprint of downstream products. Initial implementations started in fiscal year 2024/25.

Procurement's Role in Decarbonisation

The Procurement Department has been central to advancing CERATIZITs decarbonisation strategy. By prioritizing low-carbon and circular solutions, it enabled key transitions such as the procurement of renewable electricity, green hydrogen, and more sustainable supplies.

Procurement also supported energy efficiency through solar park installations, high-efficiency heat systems, and energy-efficient buildings. It facilitated the electrification of gas-based equipment and sourced low-carbon industrial gases and raw materials from recycling routes.

Looking ahead, procurement is driving further reductions through low-carbon fuel alternatives, electrified process equipment, and sustainable transport and supply chain practices – contributing to the overall greenhouse gas emissions reduction.

Glossary

Cradle-to-Gate

Cradle-to-gate refers to the greenhouse gas (GHG) emissions and environmental impacts associated with all processes from raw material extraction through to the point where the product leaves the company's manufacturing facility. In this context, it includes only those emissions and activities that the company directly pays for or controls. Consequently, covers the following GHG scopes and categories:

Scope 1, Scope 2 (market-based), Scope 3 Categories: 3.1, 3.2, 3.3, 3.4 (only until the factory gate, no emissions from transportation to the customer), 3.5 to 3.7.

Cradle-to-Customer (company-paid perspective)

Cradle-to-customer expands upon cradle-to-gate by including the transportation and distribution of the product to the customer (financial boundary, company-paid perspective). It captures the full environmental impact from raw material extraction to the point of sale or delivery. It covers scope 1, scope 2 and scope 3.1-3.7 as well as 3.15 categories.

SBTi definitions:

Overall Net-Zero Target

CERATIZIT commits to reach net-zero greenhouse gas emissions across the value chain by FY2040.

Near-Term Targets

CERATIZIT commits to reduce absolute scope 1, 2 and scope 3 GHG emissions from purchased goods and services, capital goods, fuel- and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, employee commuting and investments 54% by FY2030 from a FY2020 base year.

Long-Term Targets

CERATIZIT commits to reduce absolute scope 1, 2 and 3 GHG emissions 90% by FY2040 from a FY2020 base year.

Cradle-to-Cradle

Cradle-to-cradle includes the entire life cycle of the product, from raw material extraction to end-of-life treatment and potential recycling or reuse. It aims to create a closed-loop system where materials are continuously repurposed. It covers all scope 1, scope 2 and scope 3 categories.

GHG Scope/Category	Cradle-to-Gate	Cradle-to-Customer (company-paid perspective)	Cradle-to-Cradle
Scope 1: Direct emissions	included	included	included
Scope 2: Indirect emissions (market-based)	included	included	included
Scope 3.1: Purchased goods and services	included	included	included
Scope 3.2: Capital goods	included	included	included
Scope 3.3: Fuel- and energy-related activities	included	included	included
Scope 3.4: Upstream transportation and distribution	included (to gate only)	included	included
Scope 3.5: Waste generated in operations	included	included	included
Scope 3.6: Business travel	included	included	included
Scope 3.7: Employee commuting	included	included	included
Scope 3.8: Upstream leased assets	-	-	included
Scope 3.9: Downstream transportation and distribution	-	-	included
Scope 3.10: Processing of sold products	-	-	included
Scope 3.11: Use of sold products	-	-	included
Scope 3.12: End-of-life treatment of sold products	-	-	included
Scope 3.13: Downstream leased assets	-	-	included
Scope 3.14: Franchises	-	-	included
Scope 3.15: Investments	-	included	included

All current information can be found on the SBTi website: https://sciencebasedtargets.org/target-dashboard

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