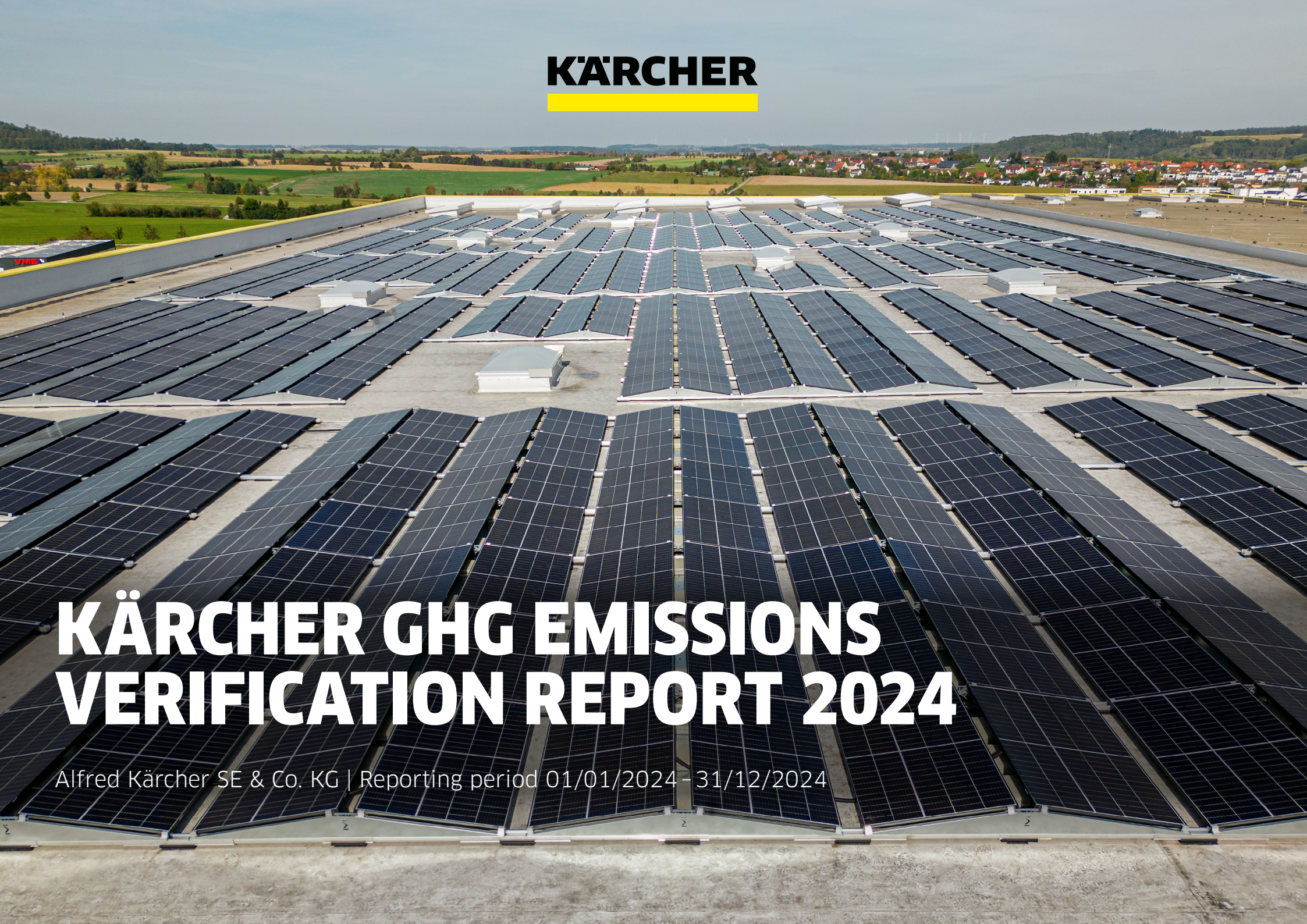

KÄRCHER GHG EMISSIONS VERIFICATION REPORT 2024

Alfred Kärcher SE & Co. KG | Reporting period 01/01/2024 – 31/12/2024

GENERAL INFORMATION AND AUDIT CRITERIA

Introduction

Kärcher is a German family-owned company that focuses on two core business segments: Professional, for commercial and industrial use, and Home & Garden, for private use in and around the home. Products range for example from high pressure cleaners, floor care solutions, home appliances such as vacuum cleaners to industrial cleaning solutions and car wash. The Kärcher group is led by five board members. Kärcher customers are for example private households as well as cleaning businesses, agriculture, industry, hotels, the building sector and the public institutions. Production sites are in the USA, Mexico, Brazil, Germany, Italy, Romania, Latvia, China and Vietnam. Subsidiaries are located in 85 countries.

GHG Emissions Calculation Boundary

The boundary for calculating the greenhouse gas (GHG) emissions are in alignment with the consolidation group for the financial report. A two-stage approach for consolidation is used:

1. All companies with >50% operational control are included.
2. A materiality assessment is carried out, which excludes companies with net sales and annual earnings less than five per cent of the Group's total value.

In 2024, the consolidation boundary consisted of a total of 81 subsidiaries.

Science-based emission reduction target

In 2024, Kärcher had its short-term science-based target validated by the SBTi. The target formulation is:

"Alfred Kärcher SE & Co. KG commits to reduce absolute Scope 1 and 2 GHG emissions 42% by 2030 from a 2020 base year. Alfred Kärcher SE & Co. KG also commits to reduce Scope 3 GHG emissions from purchased goods and services and use of sold products 51.6% per thousand EUR value added by 2030 from a 2022 base year."*

** The target boundary includes land-related emissions and removals from bioenergy feedstocks.*

About the cover picture: Since 2021, we produce and assemble our products at all Kärchers facilities with 100% electricity from renewable* sources.
* From solar power (on-site and off-site), hydropower, wind power.

Specific Exclusions from the Emissions Inventory

Kärcher considers the following gases when calculating its CO_2 equivalents: carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O). In this process, Kärcher has noted that sulfur hexafluoride (SF_6) and nitrogen trifluoride (NF_3) is currently not relevant for the company's Scope 1 emissions.

Fugitive emissions from F-gases (HFCs & PFCs) are not included in our short-term reduction target and are therefore excluded from our inventory.

The stated GHG reduction targets are gross targets without GHG removals and do not consider GHG removals, carbon credits, or avoided emissions.

Recalculation policy

The base year emission recalculation policy adheres to the recommendations of the GHG Protocol Scope 3 standard. The need for recalculation of the base year is evaluated on a yearly basis. The main drivers which may trigger a recalculation could be:

- structural changes e.g. mergers, outsourcing, etc.
- changes in calculation methodologies, emission factors, improvements in data accuracy, and/or discovery of significant errors,
- changes in the categories or activities included in the Scope 3 inventory.

A significance threshold is set at five per cent and this can be reached either by one of listed drivers or by a combination of more drivers (i.e. a cumulative effect).

METHODS FOR CALCULATING OR MEASURING EMISSIONS

For GHG accounting and reporting, Kärcher follows the requirements outlined in GHG Protocol Corporate Standard (Version 2004), GHG Protocol Scope 2 Guidance and Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Scope 1 Emissions

Calculated using emission factors in kg CO_2e/kWh per energy source.
Source of emission factors: information sheet from the BAFA (German Federal Office for Economic Affairs and Export Control).

Scope 2 Emissions

For the market-based method, supplier-specific emission factors are primarily used.
In the absence of supplier-specific factors, the Ecoinvent database was used, considering the respective market activity. Missing energy consumption data was extrapolated with regression analyses on previous years' values, climatic zones or the number of employees.

Scope 3 Emissions:

Significant indirect emission sources:
Category 3.1 "Purchased goods and services" and Category 3.11 "Use phase of sold products"
Category 3.1: spent-based emission factors from Systain's proprietary estell input-output model, OECD ICIO, U.S. Bureau of Economic Analysis (BEA), EXIOBASE, and World Development Indicators from the World Bank
Category 3.11: average emission factors from Ecoinvent for market-based electricity emissions

Greenhouse Gases Considered:
CO_2, CH_4, N_2O, HFCs, PFCs, SF_6, NF_3.

BASE YEAR AND EMISSIONS TREND

Total GHG emissions of categories of Scope 1, 2, and 3[1]

Year	Scope 1 (in t CO_2e)	Scope 2 Market-Based (in t CO_2e)	Scope 2 Location-Based (in t CO_2e)	Scope 3 (in t CO_2e)
2020[2]	35,167[2]	30,653[2]	34,125[2]	–
2021	31,691	29,766	36,830	–
2022[3]	30,430	28,312	48,070	5,158,735[3]
2023	30,519	23,992	45,783	5,997,987
2024	30,316	7,656	50,156	5,216,305

[1] The emission values for the years 2020–2023 have not been externally verified.
[2] **Scope 1 & 2 base year: 2020.** The first year when Kärcher set an internal and external GHG emission reduction target for Scope 1 & 2.
[3] **Scope 3 base year: 2022.** This is the first year when Kärcher had complete Scope 3 emissions data.

Scope 1[4] Emissions data for GHGs separately

	t	t CO_2e
CO_2	23,517	23,517
CH_4	4.6	129
N_2O	1.35	357

[4] See the "Specific Exclusions from the Emissions Inventory" section for additional information about the GHG gases.

GHG emissions from the combustion of biomass

	t CO_2e
Biogenic CO_2 emissions	100

SCOPE 3 EMISSIONS ANALYSIS: DATA, METHODOLOGY AND RESULTS

Category	Types of data used, data sources and data quality[1]	Methodology	t CO_2e[2]	Total from Scope 3 emissions
3.1 Purchased goods and services	**Activity Data:** spent-based data on purchasing of goods & services. Data collection from internal ERP systems **Qualitative data quality:** good **Emission Factors:** use of Systain's proprietary estell input-output model. OECD ICIO, BEA, EXIBOBASE, World Bank WDI. Application of country-level emission factors **Qualitative quality of emission factors:** good **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Spent data provided in totals per "material group" (direct/indirect) ■ Data aggregation at the country level ■ Input and sector mapping in scope3analyzer ■ Extrapolation factor of 9.5% (based on headcount) applied for non-reporting subsidiaries **Qualitative data quality:** fair	934,257	17.91%
3.2 Capital goods	**Activity data:** spent-based data on investments in capital goods. Capital goods were identified from the internal ERP system by listing all the fixed assets which have an amortisation time **Qualitative data quality:** good **Emission factors:** EFs from https://scope3analyzer.pulse.cloud/ and its underlying database (Systain's proprietary estell input-output model, data basis OECD ICIO, U.S. Bureau of Economic Analysis (BEA), EXIOBASE and World Development Indicators of the World Bank). Global EFs were used **Qualitative quality of emission factors:** fair **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Data aggregation by matching asset class metadata with scope3analyzer categories ■ Extrapolation factor of 9.5% (based on headcount) applied after initial GHG calculation **Qualitative data quality:** fair	11,695	0.22%
3.3 Fuel- and energy-related activities (not included in Scope 1 or Scope 2)	**Activity data:** consumption data (converted to kWh) was collected from all subsidiaries via internal sustainability data software or via forms **Qualitative data quality:** very good **Emission factors:** EFs from https://scope3analyzer.pulse.cloud/ and its underlying database. Scope 3.3 emission factors including associated upstream chain: UK government GHG Conversion Factors for Company Reporting https:/gov.uk/government/collections/government-conversion-factors-for-company-reporting. For T&D losses, the source is IEA Life cycle Upstream Emission Factors 2023 **Qualitative quality of emission factors:** good **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Consumption data for fossil fuels: aggregated at the group level ■ Electricity consumption data: grouped by country ■ Data imputation in scope3analyzer ■ Results: two files (upstream fuel and electricity emissions) ■ Transmission & Distribution (T&D) losses for electricity: calculated manually in spreadsheets **Qualitative data quality:** good	9,899	0.19%

[1] Data quality of reported emissions data is qualitative and subjective and based on data quality criteria according to the GHG Protocol. The quality steps are: poor/ fair/ good/ very good.
[2] Total emissions excluding biogenic CO_2 emissions and independent of any GHG trades, such as purchases, sales, or transfers of offsets or allowances.

Category	Types of data used, data sources and data quality[1]	Methodology	t CO_2e[2]	Total from Scope 3 emissions
3.4 Upstream transportation and distribution	**Activity data:** monetary spent on transport and distribution services **Qualitative data quality:** good **Emission factors:** EFs from https://scope3analyzer.pulse.cloud/ and its underlying database (Systain's proprietary estell input-output model, data basis OECD ICIO, U.S. Bureau of Economic Analysis (BEA), EXIOBASE and World Development Indicators of the World Bank) **Qualitative quality of emission factors:** fair **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Statistical internal orders data collected from internal ERP system (all countries) ■ Data mapped to type of transport ■ Limited assumptions on air/land/water transport share (based on known data) ■ Cost centres for storage identified and totals compiled ■ Transport and storage totals entered into scope3analyzer and mapped to relevant categories **Qualitative data:** fair	211,340	4.05%
3.5 Waste generated in operations	**Activity data:** monetary spent from G/L accounts relevant to waste treatment by third parties **Qualitative data quality:** good **Emission factors:** EFs from https://scope3analyzer.pulse.cloud/ and its underlying database (Systain's proprietary estell input-output model, data basis OECD ICIO, U.S. Bureau of Economic Analysis (BEA), EXIOBASE and World Development Indicators of the World Bank). Global EFs were used **Qualitative quality of emission factors:** fair **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Total spent imputed to scope3analyzer and mapped to waste treatment and water treatment categories ■ No differentiation by waste treatment type **Qualitative data quality:** fair	28,891	0.55%
3.6 Business travel	**Activity data:** primary data and calculated emissions available from the business travel management agency which covers subsidiaries from France, the UK,USA, Austria and Germany **Emission factors:** EFs from GLEC **Qualitative quality of emission factors:** poor **Emissions calculated using data obtained from suppliers or other value chain partners:** 60%	■ Emissions calculated by travel agencies (split by air and land travel) ■ Extrapolation for missing subsidiaries based on revenue (as a proxy for travel data) **Qualitative data quality:** fair	11,600	0.22%
3.7 Employee commuting	**Activity data:** number of FTEs in 2024. **Qualitative data quality:** good **Emission factors:** EFs from (http://scope3analyzer.pulse.cloud) and its underlying database. In the case of 3.7, these are Systain's own calculations based on public studies including Statista, Mobilitaet in Zahlen Deutschland, Kraftfahrbundesamt, BMVi, Umweltbundesamt and DIW **Qualitative quality of emission factors:** fair **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Activity data uploaded to scope3analyzer. ■ Results documented in spreadsheets. **Qualitative data quality:** poor	23,480	0.45%

[1] Data quality of reported emissions data is qualitative and subjective and based on data quality criteria according to the GHG Protocol. The quality steps are: poor/ fair/ good/ very good.
[2] Total emissions excluding biogenic CO_2 emissions and independent of any GHG trades, such as purchases, sales, or transfers of offsets or allowances.

Category	Types of data used, data sources and data quality[1]	Methodology	t CO_2e[2]	Total from Scope 3 emissions
3.8 Upstream leased assets	Not applicable because Kärcher does not lease assets from other organisations.			
3.9 Downstream transportation and distribution	**Activity data:** the number of purchase orders worldwide are used as a proxy for travel and storage **Qualitative data quality:** poor **Emission factors:** custom EF based on EPA - ghg-emission-factors-hub-2025 **Qualitative quality of emission factors:** poor **Emissions calculated using data obtained from suppliers or other value chain partners**: 0%	■ Kärcher conducted a materiality analysis using criteria like influence, data availability, and magnitude to select relevant Scope 3 categories ■ Downstream T&D is currently deemed not relevant and excluded, but still calculated ■ The materiality analysis will be updated every five years **Qualitative data quality:** poor	25,856	0.50%
3.10 Processing of sold products	Not applicable to Kärcher because Kärcher does not sell intermediate products which require further processing.			
3.11 Use of sold products	**Activity data:** primary data on sales of products and country of sale. Primary data on product specifications (energy use kW, operating hours for entire lifetime) **Qualitative data quality:** good **Emission factors:** EFs represent the market for electricity, low voltage for each of the countries of sales using ecoinvent database for each country. LCIA method is IPCC 2021, impact category is climate change and the indicator is global warming potential GWP 100. For geographies not included in ecoinvent EF source there is Ember (2024); Energy Institute - Statistical Review of World Energy (2024) – with major processing by Our World in Data **Qualitative quality of emission factors:** good **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Use phase calculation: energy use (kW)* operating hours (lifetime)* EF (kg CO_2eq/kWh) per sales country ■ Product use phase determined by tested machine data from product development (lifetime in working hours, consumption based on design) ■ ecoInvent data (versions 3.9.1 for 2022, 3.10.1 for 2023, 3.11 for 2024) used for grid decarbonisation impact ■ Extrapolation (> 25%) applied for products with missing specifications **Qualitative data quality:** fair	3,833,088	73.48%
3.12 End-of-life treatment of sold products	**Activity data:** gross sales, quantity and gross weights including packaging of machines sold **Qualitative data quality:** good **Emission factors:** EFs source is WARP report for DEFRA 2022 **Qualitative quality of emission factors:** fair **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Machine weights are totalled ■ Global ratio (25/65/10 for recycled/landfill/incineration) applied to total weights ■ Global EFs used for each waste type ■ Total emissions extrapolated to total gross sales of all products **Qualitative data quality:** fair	60,799	1.17%

[1] Data quality of reported emissions data is qualitative and subjective and based on data quality criteria according to the GHG Protocol. The quality steps are: poor/ fair/ good/ very good.
[2] Total emissions excluding biogenic CO_2 emissions and independent of any GHG trades, such as purchases, sales, or transfers of offsets or allowances

Category	Types of data used, data sources and data quality[1]	Methodology	t CO_2e[2]	Total from Scope 3 emissions
3.13 Downstream leased assets	**Activity data:** internally collected data on energy consumption (in kWh) from invoices for two production locations. Assumed energy consumption for three leased private houses located in Winnenden based on area **Qualitative data quality:** good **Emission factors:** EF used are from BAFA, the same source for Scope 1 **Qualitative quality of emission factors:** good **Emissions calculated using data obtained from suppliers or other value chain partners:** 98%	■ Energy consumption (kWh) multiplied by relevant EFs using average data methodology **Qualitative data quality:** good	353	0.01%
3.14 Franchises	Not applicable because Kärcher does not operate a franchising model.			
3.15 Investments	**Activity data:** external investments of Kärcher group in MEUR. Headcount of entities with less than 5.1% **Qualitative data quality:** good **Emission factors:** EFs from Quantis Scope 3 Evaluator **Qualitative quality of emission factors:** poor **Emissions calculated using data obtained from suppliers or other value chain partners:** 0%	■ Emissions calculated by multiplying spent data with EF in a spreadsheet ■ Extrapolation for < 51% entities based on headcount **Qualitative data quality:** poor	65,047	1.25%

[1] Data quality of reported emissions data is qualitative and subjective and based on data quality criteria according to the GHG Protocol. The quality steps are: poor/ fair/ good/ very good.
[2] Total emissions excluding biogenic CO_2 emissions and independent of any GHG trades, such as purchases, sales, or transfers of offsets or allowances.

INDEPENDENT PRACTITIONER'S REPORT ON A LIMITED ASSURANCE ENGAGEMENT ON THE GHG EMISSIONS VERIFICATION REPORT 2024

To Alfred Kärcher SE & Co. KG, Winnenden, Germany

Assurance Conclusion

We have conducted a limited assurance engagement on the GHG Emissions Verification Report 2024 of Alfred Kärcher SE & Co. KG, Winnenden (hereinafter referred to as "the Company") for the financial year from January 1 to December 31, 2024.

The disclosures on greenhouse gas emissions for the years 2020 to 2023 in table "Total GHG emissions of categories of Scope 1, 2, and 3", which are marked as not externally verified, were not subject to our assurance engagement.

Based on the procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the GHG Emissions Verification Report 2024 is not prepared, in all material respects, in accordance with the requirements of the Greenhouse Gas (GHG) Protocol Corporate Accounting and Reporting Standard, Revised Edition (Scope 1 and 2) and the Greenhouse Gas Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard.

Basis for the Assurance Conclusion

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3410: Assurance Engagements on Greenhouse Gas Statements issued by the International Auditing and Assurance Standards Board (IAASB).

The procedures in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

Our responsibilities under ISAE 3410 are further described in the section "Responsibility of the Assurance Practitioner".

We are independent of the entity in accordance with the requirements of European law and German commercial and professional law, and we have fulfilled our other German professional responsibilities in accordance with these requirements. Our audit firm has applied the requirements for a system of quality control as set forth in the IDW Quality Management Standard issued by the Institut der Wirtschaftsprüfer [Institute of Public Auditors in Germany] (IDW): Requirements for Quality Management in the Audit Firm (IDW QMS 1 (09.2022)) and International Standard on Quality Management (ISQM) 1 issued by the IAASB. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our assurance conclusion.

Responsibilities of the executive directors

The executive directors are responsible for the preparation of the GHG Emissions Verification Report 2024 in accordance with the requirements of the GHG Protocol Corporate Accounting and Reporting Standard, Revised Edition (Scope 1 and 2) and the GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard and for designing, implementing and maintaining such internal control that they have considered necessary to enable the preparation of the GHG Emissions Verification Report 2024 in accordance with these requirements that is free from material misstatement, whether due to fraud (i.e., fraudulent the GHG Emissions Verification Report 2024) or error.

This responsibility of the executive directors includes selecting and applying appropriate reporting policies for preparing the GHG Emissions Verification Report 2024, as well as making assumptions and estimates.

Inherent limitations in the quantification of greenhouse gas emissions

Greenhouse gas quantification is subject to inherent uncertainty because of incomplete scientific knowledge used to determine emissions factors and the values needed to combine emissions of different gases.

These inherent limitations also affect the assurance engagement on the GHG Emissions Verification Report 2024.

Responsibilities of the assurance practitioner

Our objective is to express a limited assurance conclusion, based on the assurance engagement we have conducted, on whether any matters have come to our attention that cause us to believe that the GHG Emissions Verification Report 2024 has not been prepared, in all material respects, in accordance with the GHG Protocol Corporate Accounting and Reporting Standard, Revised Edition (Scope 1 and 2) and the GHG Corporate Value Chain (Scope 3) Accounting and Reporting Standard, and to issue an assurance report that includes our assurance conclusion on the GHG Emissions Verification Report 2024.

As part of a limited assurance engagement in accordance with ISAE 3410, we exercise professional judgment and maintain professional scepticism. We also:

- obtain an understanding of the process used to prepare the GHG Emissions Verification Report 2024.
- identify and assess risks of a material misstatement due to fraud or error, design and perform procedures to address these risks and obtain limited assurance to support the assurance conclusion. The risk of not detecting a material misstatement resulting from fraud is higher than the risk of not detecting a material misstatement resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control. In addition, the risk of not detecting a material misstatement in information obtained from sources not within the entity's control (value chain information) is ordinarily higher than the risk of not detecting a material misstatement in information obtained from sources within the entity's control, as both the entity's executive directors and we as practitioners are ordinarily subject to restrictions on direct access to the sources of the value chain information.

Summary of the Procedures Performed by the Assurance Practitioner

A limited assurance engagement involves the performance of procedures to obtain evidence about the sustainability information in the GHG Emissions Verification Report 2024. The nature, timing and extent of the selected procedures are subject to our professional judgment.

In performing our limited assurance engagement, we:

- inquired the executive directors and relevant employees involved in the preparation of the GHG Emissions Verification Report 2024 about the preparation process, and about the internal controls relating to this process
- evaluated the policies used by the executive directors to prepare the GHG Emissions Verification Report 2024
- evaluated the reasonableness of the estimates and related information provided by the executive directors
- performed analytical procedures and made inquiries in relation to selected information in the GHG Emissions Verification Report 2024
- reconciliations with supporting documentation
- considered the presentation of the information in the GHG Emissions Verification Report 2024

Restriction of use

We draw attention to the fact that the assurance engagement was conducted for the Company's purposes and that the assurance report is intended solely to inform the Company about the result of the assurance engagement. Consequently, it may not be suitable for any other purpose than the aforementioned. Accordingly, the assurance report is not intended to be used by third parties for making (financial) decisions based on it. Our responsibility is to the Company alone. We do not accept any responsibility to third parties. Our assurance conclusion is not modified in this respect.

Engagement terms

This engagement is based on the "Special Terms and Conditions of BDO AG Wirtschaftsprüfungsgesellschaft" dated January 1, 2024, agreed with the Company as well as the "General Engagement Terms for Wirtschaftsprüferinnen, Wirtschaftsprüfer and Wirtschaftsprüfungsgesellschaften (German Public Auditors and Public Audit Firms)" dated January 1, 2024, issued by the IDW (www.bdo.de/engagement-terms-conditions).

Munich, 30.05.2025

BDO AG Wirtschaftsprüfungsgesellschaft

Carmen Auer ppa. Nick Stephan

KÄRCHER

makes a difference

LEGAL INFORMATION

Publisher

Alfred Kärcher SE & Co. KG
Alfred-Kärcher-Straße 28–40
71364 Winnenden, Germany

T +49 7195 14-0
F +49 7195 14-2212

www.Karcher.com

Contact

Corporate Sustainability Team
Paul Zimmermann v. Siefart
sustainability@karcher.com

GHG inventory authors

Ali Genc
Cosmin Parlog
Simone Quitt
Alfred Kärcher SE & Co. KG

Design

aha grafikdesign

Visit us at karcher.com/sustain
and find out more about
sustainability at Kärcher