giz Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

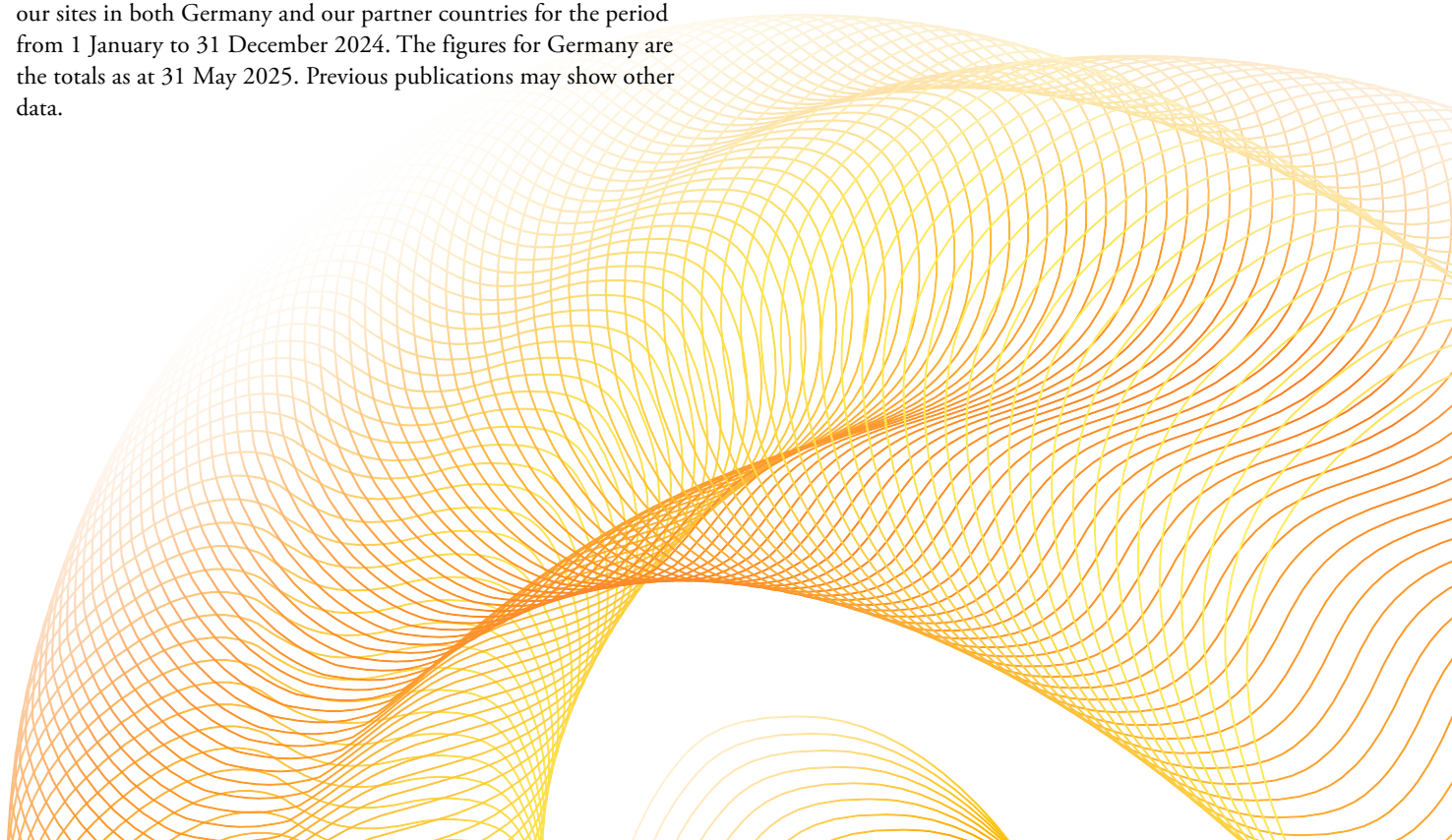
Climate and environmental data 2024

About this report

Sustainability is GIZ's guiding principle and forms the basis for our contributions to shaping a society that is fit for the future. We compile and analyse all the most important climate and environmental data every year to gain a better understanding of our environmental sustainability and continuously improve our performance. Externally validated information about our activities in Germany is provided by the Eco-Management and Audit Scheme (EMAS). We have also developed our own environmental management tool, the Corporate Sustainability Handprint® (CSH), as a source of data on our operations in other countries.

GIZ has gathered climate and environmental data for its German locations since 1999. Following the adoption of EMAS in 2013, environmental figures are now checked each year by an accredited environmental consultant to ensure that they are complete and plausible. In the same year, we piloted systematic data collection in our partner countries. Annual data compilation has been mandatory since 2018. Further information about the methods we use to calculate climate and environmental data can be found in the section entitled 'Notes on calculation methods'.

The publication 'Climate and Environmental Data 2024' is aimed at GIZ employees and anyone outside the company with a professional interest in our environmental performance. This document includes all the most important climate and environmental data for our sites in both Germany and our partner countries for the period from 1 January to 31 December 2024. The figures for Germany are the totals as at 31 May 2025. Previous publications may show other data.



Summary of climate and environmental

Workforce	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Total number of internal staff [FTE]	5,183	6,036	6,272	5,959	No distinction between internal and external staff is made			
Total number of external staff [FTE]	315	240	229	228				
Total number of internal and external staff [FTE]	**5,497**	**6,276**	**6,502**	**6,187**	**18,228**	**20,093**	**19,921**	**18,855**

Summary of GHG emissions[1]					Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Scope 1								
Heating [in t CO_2e]	2,760	864	516	345	1,850	1,007	1,243	1,635
Fuel for company vehicles in t CO_2e	23	8	9	10	11,550	10,741	9,627	7,817
Coolants in t CO_2e	31	13	45	17	4,048	4,055	4,240	4,119
Generators in t CO_2e	3	6	0	4	1,765	2,641	2,350	2,388
Scope 2								
Electricity[2] in t CO_2e	380	185	219	238	9,693	8,416	9,149	7,472
District heating in t CO_2e	176	178	165	136	351	218	248	234
District cooling in t CO_2e	47	46	33	30	76	0	0	0

1 Due to improved data quality, these figures partly deviate from previously published data. This applies in particular to the year 2023.

2 Emissions from electricity were calculated using the market-based method domestically. The location-based method is used abroad.

Emissions from sourcing biomethane[3]	Germany				Abroad
	2019	2022	2023	2024	
Heating in t CO_2e	no supply	118	156	172	No biomethane is purchased for heating abroad
Fuel and energy-related emissions in t CO_2e	no supply	42	56	62	

3 Since 2021, biomethane has been purchased for heating at most locations in Germany.

Electricity[4]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Electricity (location-based method) in t CO_2e	4,459	3,801	3,960	3,990	9,693	8,416	9,149	7,472
Electricity (market-based method) in t CO_2e	380	185	219	238	Data not mapped in the CSH			

4 Updated data results in changes to the data. Outside Germany, we exclusively use the location-based method. No data are available for calculating the market-based method.

Scope 3	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Purchased goods and services[5] in t CO_2e	132,223	139,122	138,011	143,210	61,789	68,151	67,975	41,008
Fuel and energy-related emissions[6] in t CO_2e	412	241	273	268	8,276	5,922	5,740	5,023
Business trips[7] in t CO_2e	23,275	13,239	17,602	17,089	86,254	59,531	78,362	72,880
Commuting[8] in t CO_2e	3,042	4,903	3,926	3,587	10,008	13,974	13,854	13,909
Events in t CO_2e	Data not yet mapped	81	407	228	Data not mapped in the CSH			

5 Estimate based on financial data. These are only emissions from purchased services since these are essential for GIZ. This excludes tangible assets and construction services.

6 Due to improved data quality, figures may differ in part from previously published data. For operations abroad, an estimate was made for the year 2019, and the years 2022 and 2023 were adjusted retrospectively.

7 Refers to business travel by airplane.

8 Commuter traffic abroad was roughly estimated for 2019 using flat-rate values. For 2022 and 2023, extrapolations were made based on a staff survey. In 2024, the calculation was carried out using country-specific emissions factors.

Achievement of SBTi target[9]	Entire company			
	2019	2022	2023	2024
Scope 1 + 2 in t CO_2e	32,709	28,378	27,843	24,445
Scope 3 in t CO_2e	325,157	305,083	325,743	296,975

9 The totals deviate in part from previously communicated figures because data quality has improved thanks to more accurate recalculations. The base year 2019 remains unchanged, as it is not subject to retrospective adjustments in the context of achieving the SBTi targets.

Other Airborne Emissions[10]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
NO_X (nitrogen oxides) in kg	8,822	13,196	13,530	12,890				
SO_2 (sulfur dioxide) in kg	4,964	4,913	5,112	4,957		Data not mapped in the CSH		
PM_{10} (coarse particular matter) in kg	233	859	697	558				

10 Figures for 2019 and 2023 have been recalculated based on new data.

Offsets[11]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Climate neutralized t CO_2e	29,721	19,778	23,229	21,952	0	93,752	111,583	101,568

11 Since we cannot reduce all GHG emissions from different sources, we offset the emissions that are directly related to our activities. Scope 1 and 2 emissions have been offset for domestic operations since 2013, while foreign emissions have been offset since 2020.

In the area of Scope 3 emissions, we have been offsetting emissions from business travel and commuter traffic in Germany since 2013. In 2020, the offsetting of business travel was expanded to include foreign countries. In addition, emissions from events in Germany and energy-related emissions in Germany and abroad were added in 2021.

The other emission sources are beyond the control of GIZ and can in part only be recorded by means of rough estimates. They are not offset. The emissions to be offset are determined in the respective reporting year and are not adjusted retrospectively in subsequent years. Some of the emissions shown have already been offset or will be offset in the future.

Mobility	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Total flights in 1,000 km	69,621	41,831	56,738	55,823	361,454	250,994	312,600	284,997
Distance flown per staff member in km	13,434	6,930	9,046	9,368	19,830	12,492	15,692	15,115
Total rail trips in 1,000 km	12,357	6,447	8,768	7,214				
Distance travelled by rail per staff member in km	2,384	1,068	1,398	1,211				
Total trips using company vehicles in 1,000 km	137	147	108	104		Data not mapped in the CSH		
Total distance travelled in 1,000 km	**82,115**	**48,426**	**65,613**	**63,141**				
Distance travelled per staff member in km	15,845	8,023	10,461	10,596				

Energy Consumption[12]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Total energy consumption								
Total energy consumption in kWh	**24,114,794**	**20,419,593**	**20,403,542**	**20,441,019**	**80,277,407**	**75,989,840**	**71,939,372**	**63,460,165**
Total energy consumption per staff member in kWh	4,387	3,254	3,138	**3,304**	4,404	3,782	3,611	**3,366**
Electricity								
Total electricity consumption in kWh	10,088,941	8,598,906	8,999,943	**9,141,478**	19,717,828	17,620,037	18,948,788	**16,608,419**
Total electricity consumption per staff member in kWh	1,835	1,370	1,384	**1,478**	1,082	877	951	**881**
Green electricity percentage	84 %	94 %	93 %	93 %	Data not mapped in the CSH			
Heating / Cooling energy								
Total heating / cooling energy in kWh	13,925,530	11,765,671	11,343,581	**11,228,052**	7,083,143	3,926,957	4,363,030	**4,891,397**
Total heating / cooling energy per staff member in kWh	2,533	1,875	1,745	**1,815**	389	195	219	**259**
Percentage of heating energy from renewable sources	12 %	57 %	72 %	**81 %**	Data not mapped in the CSH			
Fuel for company vehicles and generators								
Total energy consumption from motor vehicle fuel in kWh	94,826	36,309	60,018	**59,690**	46,036,759	43,728,348	38,866,303	**32,095,268**
Total energy consumption from motor vehicle fuel per staff member in kWh	18	6	10	**10**	2,526	2,176	1,951	**1,702**
Total energy consumption by generators in kWh	5,498	18,707	0	**11,799**	7,439,677	10,714,498	9,761,250	**9,865,081**
Total energy consumption by generators per staff member in kWh	1	3	0	**2**	408	533	490	**53**

12 Due to improved data quality, these figures differ in part from previously published data.

Water Consumption[13]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Total drinking water consumption in m^3	50,678	27,525	28,998	**26,473**	608,612	395,006	364,576	**362,994**
Total drinking water consumption per staff member in l	9,219	4,386	4,460	**4,279**	33,390	19,659	18,301	**19,252**

13 Due to improved data quality, some of these figures for 2022 and 2023 differ from previously published data.

Paper Consumption[14]	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Paper consumption (sheets)	11,897,087	4,738,544	3,537,173	2,471,264	73,673,934	42,972,940	36,958,001	31,734,903
Per-capita paper consumption (sheets per staff member)	2,164	755	544	399	4,042	2,139	1,855	1,683
Percentage of recycled paper used	95 %	100 %	100 %	100 %	15 %	22 %	24 %	26 %

14 Due to improved data quality, some of these figures for 2022 and 2023 differ from previously published data.

Waste	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Total non-hazardous waste in t	1,009	807	807	834	Data not mapped in the CSH			
Total non-hazardous waste per staff member in kg	183	129	124	135				
Total residual waste in t	303	187	182	180				
Total residual waste per staff member in kg	55	30	28	29				
Total paper waste in t	283	215	209	215				
Total paper waste per staff member in kg	51	34	32	35				
Total hazardous waste in t	5	14	13	11				

Biodiversity	Germany				Abroad			
	2019	2022	2023	2024	2019	2022	2023	2024
Usable space in m^2	157,352	161,589	155,333	149,937	Data not mapped in the CSH			
Usable space per staff member in m^2	29	26	24	24				
Sealed outer surface in m^2	Data not yet mapped	38,076	42,455	42,455				
Green areas (not sealed) in m^2		48,379	48,284	45,751				
Near-natural, biodiversity-friendly areas in m^2		31,322	31,184	29,884				

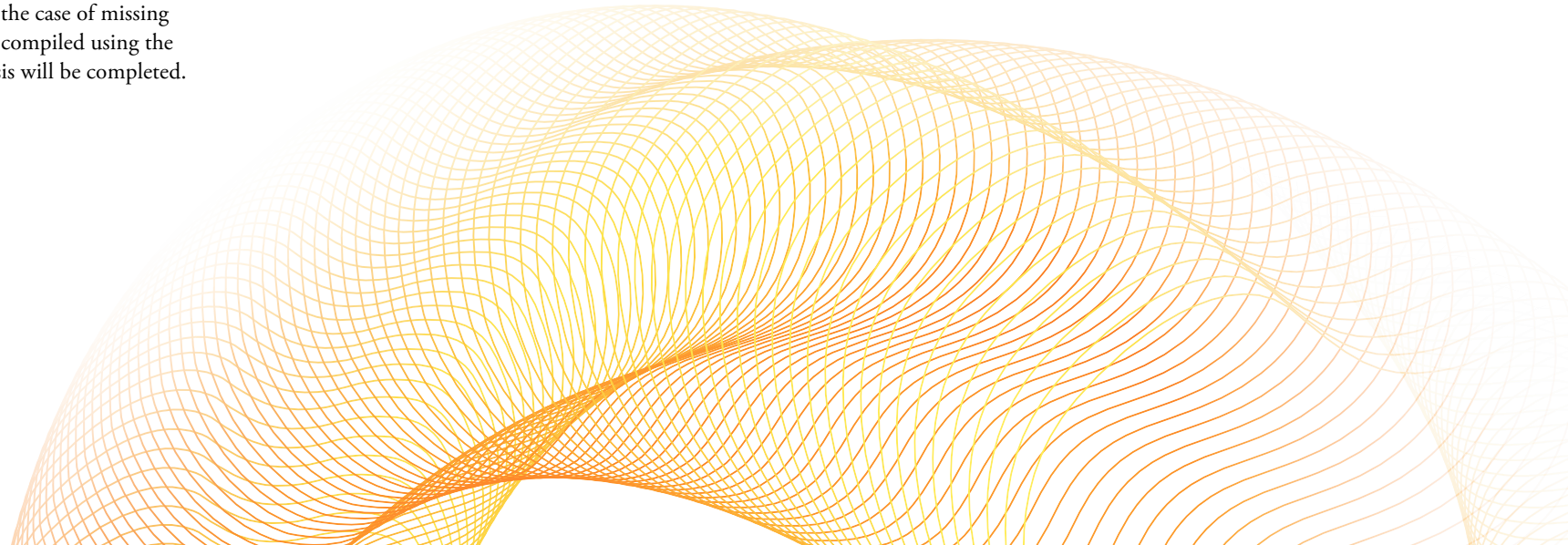
Notes on calculation methods

For Germany, data on the amount of energy, water and paper we use and the waste we produce is compiled and submitted to the Sustainability Office by the participating organisational units at our six EMAS sites in Bonn, Eschborn, Berlin (two locations), Bonn-Röttgen and Feldafing. All consumption figures are reviewed and verified for plausibility. The corresponding figures for smaller non-EMAS locations are extrapolated from this compiled data. Also, we calculate an approximate figure to indicate the resources consumed by a single, statistically average employee. This figure is then multiplied by the number of employees at our smaller locations to represent consumption levels at sites without EMAS validation. Outside Germany, consumption data for energy, water and paper are compiled and totalled using the CSH. There have been consistent improvements in data availability and quality in recent years. The CSH data is also verified for plausibility; any discrepancies are clarified. Within the scope of the query zero values that indicate zero consumption are distinguished from zero values which indicate missing data. If specific data of a country is missing, it will be extrapolated using the country average. In the case of missing data about an environmental aspect it will be compiled using the related division average. Thereby, the data basis will be completed.

The climate and environmental figures per employee shown in the report are based on the number of full-time equivalent (FTE) posts for the corresponding years. These notes on our calculation methods apply to the current reporting year. The figures for Germany are the totals as at 31 May 2025. Due to better availability of data, some figures have been updated for 2022 and 2023. In addition, errors in the Excel system were corrected and the process improved.

Both EMAS and the CSH provide consumption data for calculating GIZ's greenhouse gas (GHG) emissions. In doing so, we are guided by the international standard known as the Greenhouse Gas Protocol (GHGP). The GHGP distinguishes between direct and indirect emissions within three scopes:

- **Scope 1**: Direct sources of GHG emissions that are owned or controlled by the company, such as fuel for cars or generators and heating energy from combustion processes;
- **Scope 2**: Indirect emissions from purchased energy such as electricity or district heating/cooling;
- **Scope 3**: Other indirect emissions generated along the upstream and downstream value chain that are therefore also within the responsibility of the company (e.g. goods and services purchased, business flights and commuting).



Changes to the assessment system were made as of 2021 so that GHG emissions could be calculated in accordance with the requirements of the Science Based Targets initiative (SBTi). Wherever possible, these changes were also made retroactively to ensure data comparability. We do not have raw data for all emissions categories. In light of this, we have to estimate some emissions in our upstream and downstream value chain. For this reason, we performed a Scope 3 screening to obtain a complete picture with the SBTi in mind and to make our progress towards objectives transparent. One considerable challenge lies in the lack of primary data in the value chain, especially for procurement. An activity-based accounting method is currently being developed for the procurement of services. Emissions from the procurement of material goods and capital goods, on the other hand, are not part of the reduction targets. Only estimates based on the expenditure-based method are available here. This means that they cannot be controlled directly.

The emission factors for **heating energy** from combustion processes, such as biomethane and natural gas, and **fuels for cars and generators** are taken from the Global Emission Model for Integrated Systems (GEMIS) 5.0, the UK Department for Environment, Food and Rural Affairs (DEFRA 2023), and the International Energy Agency (IEA 2024). They refer to emission factors without the upstream chain. In Germany, we also use utility-specific emission factors.

The global warming potential (GWP) from **coolants** is determined using conversion factors specified by the Intergovernmental Panel on Climate Change (IPCC) IV. In Germany, this calculation is based on actual reported amounts of coolant refilled during maintenance work. Since 2019, we have also compiled data on coolant emissions from our operations outside Germany. These figures are based on whole life-cycle emissions.

The emission factors for **electricity** in Germany are published by the German Environment Agency (2023) and refer to emission factors without the upstream chain. Outside Germany, GHG emissions from electricity consumption are calculated on the basis of country-specific emission factors set by IEA (2024).

The emission factors for **district heating and cooling** are based on specific data provided by each energy supplier. Where this information is not available, emission factors from DEFRA (2021/22) are used.

GHG emissions from **purchased goods and services** are estimated with the help of the Scope 3 Evaluator from the Greenhouse Gas Protocol and Quantis based on WIOD (2015) emission factors.

The emission factors for **fuel and energy-related emissions** (excluding the upstream value chain) are taken from the respective source for each energy type, for instance the German Environment Agency for electricity and GEMIS 5.0 or DEFRA 2022 and 2023 for natural gas. Where emission sources are not differentiated, figures from DEFRA 2022 were used.

GHG emissions from **business flights** are calculated using the German Business Travel Association (VDR) standard. We then apply a radiative forcing index (RFI) factor of 2.7 to reflect the additional greenhouse effect of high-altitude emissions. All business flights booked via our German travel agency are reported by it to an external service provider once a year. Outside Germany, the local travel agencies under contract with GIZ pass raw data for all flight bookings to an external service provider. These service providers then calculate the data for specific employee groups and, outside of Germany, for every country office. Emissions for rail travel in Germany are calculated using the data specifically provided for GIZ by Deutsche Bahn.

GHG emissions from **commuting** in Germany were compiled using the results of a mobility survey and calculated using emission factors from the German Environment Agency. Due to new findings and updating of emission factors, the data from 2022 onwards are only comparable with previous years to a limited extent. For operations outside Germany, country-specific average values were used as a basis: working and commuting days, commuting distances, and modal splits. Based on this data, emissions were extrapolated to the respective full-time equivalents (FTEs) of each country.

In addition to GHG emissions, the tables summarising our climate and environmental data also take into account **other air pollutants** such as nitrogen oxides (NO_X), sulphur dioxide (SO_2) and particulate matter (PM10) in Germany. The total figures for these additionally recorded air pollutants come from building-related emissions (e. g. from electricity and district heating / cooling), company cars and commuting. Emission factors are taken from the GEMIS 5.0 database.

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