

# GREENHOUSE GAS REPORT 2024 Dietz GmbH



# Greenhouse gas report 2024 Dietz GmbH

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The greenhouse gas report applies to our locations:

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## 1 Introduction

The calculation of Dietz GmbH's greenhouse gas emissions is based on the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard, which is the most common standard used worldwide for the accounting of greenhouse gases. Scope 3 emissions are calculated in accordance with the guidelines of the Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The five principles of relevance, completeness, consistency, transparency and accuracy are always taken into account.

## 2 Characterization of Dietz GmbH

Dietz GmbH is a medium-sized traditional company with its head office in Neustadt bei Coburg and a further site in Sonneberg. With over 95 years of expertise and experience, we are one of the leading manufacturers of hybrid assemblies, wire and strip bending parts, precision springs as well as stamped and formed parts, which we produce individually and ready for installation. We offer our customers innovative system solutions, the processing of a wide range of materials and material combinations, assembly and the appropriate surface finish from a single source. Dietz GmbH serves a wide range of customers. More than half of the annual turnover is generated in the automotive industry and nearly a quarter in the electrical engineering sector. Electrical engineering, household appliances, locks and fittings, toys and Christmas decorations are other sectors in which the company is represented.

We are ambitiously pursuing the climate targets we have set ourselves and want to set an example for climate-conscious trading in the industry. We are EMAS-certified and want to increase our transparency with greenhouse gas accounting. This assessment covers the two company sites in Neustadt bei Coburg and Sonneberg.

## 3 The system limits of greenhouse gas accounting

The reporting period represents a full year from January 1 to December 31. Reporting is based on the equity approach, which at Dietz also corresponds to the control approach. The year 2020 is the base year for the annual balance sheet. The report is based on the requirements of the Greenhouse Gas Protocol and distinguishes between three emission areas, known as scopes:

- Scope 1 covers the direct CO<sub>2</sub> emissions caused by the Dietz GmbH sites (e. g. heating systems, electricity generation)
- Scope 2 includes indirect CO<sub>2</sub> emissions from electricity generation by suppliers
- Scope 3 refers to indirect CO<sub>2</sub> emissions caused along the value chain (e. g. purchased goods and services, transportation and disposal).

In the greenhouse gas report, Scope 1 and Scope 2 are reported separately in accordance with the Greenhouse Gas Protocol and the individual greenhouse gases are presented in tons and tons of CO<sub>2</sub> equivalents. Scope 2 emissions are reported on a market- and location-based basis in accordance with the GHG Protocol Scope 2 Guidance.

Dietz only includes the upstream value chain in Scope 3, as the “cradle-to-gate” approach (= “from the cradle to the factory gate”) was chosen. The tracking of products and their use by our customers is difficult for us to track and is therefore not included in the accounting.

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The following eight upstream categories of value chains are taken into account in greenhouse gas accounting:

- Category 1: Purchased goods and services
- Category 2: Capital goods
- Category 3: Fuel- and energy-related emissions
- Category 4: Upstream transportation and distribution
- Category 5: Waste generated in operations
- Category 7: Employee commuting
- Category 8: Upstream leased assets

Category 6: Business travel of Scope 3 emissions is not included due to a lack of materiality. This was determined using the materiality analysis, the limit of which was defined internally.

## 4 The greenhouse gas emissions data

Scope 1 and Scope 2 are each reported in tons of greenhouse gas and tons of CO<sub>2</sub> equivalents.

	CO <sub>2</sub>		CH <sub>4</sub>	
	Tons of CO <sub>2</sub>	Tons of CO <sub>2</sub> e	Tons of CH <sub>4</sub>	Tons of CO <sub>2</sub> e
Scope 1	1,11	1,11	0,00015	0,0037
Scope 2	0	0	0	0

	N <sub>2</sub> O		HFCs	
	Tons of N <sub>2</sub> O	Tons of CO <sub>2</sub> e	Tons of HFCs	Tons of CO <sub>2</sub> e
Scope 1	0,00008	0,023	0	0
Scope 2	0	0	0	0

	PFCs		SF <sub>6</sub>	
	Tons of CO <sub>2</sub>	Tons of CO <sub>2</sub> e	Tons of CH <sub>4</sub>	Tons of CO <sub>2</sub> e
Scope 1	0	0	0	0
Scope 2	0	0	0	0

The following table summarizes the total greenhouse gases caused by the Dietz company in the year 2024. They are specified in tons of CO<sub>2</sub> equivalents and integrated into the results with the help of the Global Warming Potential of the IPCC 2007.

([https://www.ipcc.ch/site/assets/uploads/2018/05/ar4\\_wg1\\_full\\_report-1.pdf](https://www.ipcc.ch/site/assets/uploads/2018/05/ar4_wg1_full_report-1.pdf), p. 33-34).

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Dietz GmbH		2020	2023	2024	% Scope 3
Scope 1		29,8	2,5	1,129	-
Scope 2	Market-based	0	0	0	-
Scope 2 <sup>1</sup>	Location-based	501,4	501,1	428,885	-
Scope 3.1	Purchased goods and services	5.582,6	6.469,5	5.286,064	89,5%
Scope 3.2 <sup>2</sup>	Capital goods	208,3	141,4	502,104	8,5%
Scope 3.3	Fuel- and energy-related emissions	59,9	44,6	31,171	0,5%
Scope 3.4	Upstream transportation and distribution	217,5	101,6	0	
Scope 3.5	Operational waste	5,1	4,5	6,145	0%
Scope 3.6 <sup>3</sup>	Business travel	-	-	-	0,1%
Scope 3.7	Commuting by employees	85,7	81,4	80,977	0%
Scope 3.8 <sup>4</sup>	Leased assets	-	-	-	1,4%
Total:		6.188,9	6.845,5	5.907,593	

<sup>1</sup> The emission factors for the average annual generation were taken from the following source:  
<https://app.electricitymaps.com/zone/DE?lang=de>

<sup>2</sup> The emissions of the new administration building in 2020 with CO<sub>2</sub>e emissions of 685.9 tons are not included, as otherwise the values for the base year would be distorted and comparability with following years would not be guaranteed.

<sup>3</sup> Business trips were not included in the calculation due to a lack of materiality.

<sup>4</sup> Emissions from the operation of rented or leased assets are already included in Scope 1 and 2

## 5 Calculation methodology and data sources

The following table describes the data sources used for the activity data and the emission factors for Scope 1, Scope 2 and Scope 3 emissions.

	Description of the data sources for the calculation	Description of the methods and assumptions for the calculation
<b>Scope 1</b>	<b>Activity data (primary):</b> The amount of combustibles and fuels consumed is taken from invoices.  <b>Emission factors (primary/secondary):</b> <ol style="list-style-type: none"> <li>Natural gas: supplier-specific without upstream supply chain</li> <li>Fuel offset: supplier-specific emission factor</li> <li>Fuel not offset: The emission factors were taken from the GEMIS 5.1 database without an upstream supply chain.</li> </ol>	<ol style="list-style-type: none"> <li>Natural gas: the consumption volume in kWh was multiplied by the delivery-specific emission factor (kg CO<sub>2</sub>e/kWh).</li> <li>Fuel offset: the amount of fuel consumed (L) was multiplied by the emission factor (kg CO<sub>2</sub>e/L).</li> <li>Fuel not offset: The amount of fuel (L) consumed was multiplied by the selected emission factors.</li> </ol>
Description of data quality		medium
Percentage of emissions with supplier-specific emission factors:		0
<b>Scope 2</b>	<b>Activity data (primary):</b> <ol style="list-style-type: none"> <li>The amount of energy purchased was taken from invoices.</li> <li>The amount of self-produced electricity was taken from invoices, internal documents and an online portal.</li> </ol> <b>Emission factors (primary):</b> <ol style="list-style-type: none"> <li>Electricity: supplier-specific</li> <li>No emissions from own electricity production with PV systems</li> </ol>	<ol style="list-style-type: none"> <li>The consumption volume in kWh was multiplied by the supplier-specific emission factor (kg CO<sub>2</sub>e/kWh).</li> <li>Multiplication of the production quantity in kWh by the emission factor (kg CO<sub>2</sub>e/kWh)</li> </ol>
Description of data quality		high
Percentage of emissions with supplier-specific emission factors:		100 %
<b>Scope 3.1</b>	<b>Activity data (primary):</b> The quantities and monetary purchasing volumes were taken from the ERP system. The water consumption was determined from invoices.  <b>Emission factors (primary/secondary):</b> <ol style="list-style-type: none"> <li>Wire, strip and plastic granulate: the cradle-to-gate emission factors were</li> </ol>	<ol style="list-style-type: none"> <li>To calculate the cradle-to-gate emissions of wire, strip and plastic granulates, the assigned emission factors (kg CO<sub>2</sub>e/kg) were multiplied by the purchased quantities (kg).</li> <li>The CO<sub>2</sub>e emissions for other goods, consumables and services were determined by multiplying the</li> </ol>



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	<p>taken from commercial and publicly available databases and publications such as GEMIS 5.1 and the BAFA CO<sub>2</sub> factors information sheet (EEW 2024) or are based on available supplier-specific information.</p> <p>b. Goods, consumables and services: the emission factors for the monetary purchasing volume were generated using Scope 3 Analyzer conversion factors in euros for the individual sectors of the supply chain.</p> <p>c. Water consumption: emission factor from the BAFA CO<sub>2</sub> factors information sheet (EEW 2024).</p>	<p>outputs with the emission factors of the Scope 3 Analyzer.</p> <p>c. Calculation of greenhouse gas emissions by multiplying the consumed quantity (kg) and the emission factor (kg CO<sub>2</sub>e/kg).</p>
Description of data quality		low
Percentage of emissions with supplier-specific emission factors:		8,85 %
<b>Scope 3.2</b>	<p><b>Activity data (primary):</b></p> <p>The monetary purchasing volume of capital goods was taken from the ERP system.</p> <p><b>Emission factors (secondary):</b></p> <p>The emission factors for the purchasing volume are taken from the Scope 3 analyzer in euros (see Scope 3.1).</p>	<p>The monetary purchase volume of the capital goods was classified according to the purchased goods and summarized in appropriate categories. Finally, the greenhouse gas emissions of the capital goods were calculated by multiplying the expenditure (€) by the conversion factors (kg CO<sub>2</sub>e/€) of the Scope 3 Analyzer.</p>
Description of data quality		low
Percentage of emissions with supplier-specific emission factors:		0 %
<b>Scope 3.3</b>	<p><b>Activity data (primary):</b></p> <p>The amount of energy and fuel purchased in the reporting year was taken from the ERP system and invoices.</p> <p><b>Emission factors (secondary):</b></p> <p>a. Fuel: The emission factors were taken from the GEMIS 5.1 database for the upstream supply chain.</p> <p>b. Electricity: The Scope 3 emission factor for hydropower production was taken from the following source: <a href="https://app.Electricitymaps.com/zone/EN">https://app.Electricitymaps.com/zone/EN</a></p> <p>c. Gas: The emission factors were taken from the following source:</p>	<p>The consumption quantities of fuel, electricity and gas were multiplied by the corresponding emission factors of the upstream chain.</p>

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	<a href="https://gas.info/fileadmin/Public/PDF-Download/Faktenblatt-Vorkettenemission-Erdgas.pdf">https://gas.info/fileadmin/Public/PDF-Download/Faktenblatt-Vorkettenemission-Erdgas.pdf</a>	
Description of data quality		medium
Percentage of emissions with supplier-specific emission factors:		0 %
<b>Scope 3.4</b>	<p><b>Activity data (primary):</b></p> <ul style="list-style-type: none"> <li>a. The quantities of wire, strip and plastic granulate transported by the suppliers to Dietz were taken from the ERP system.</li> <li>b. Two transport service providers deliver CO<sub>2</sub>-neutral to Dietz.</li> <li>c. Transports carried out by other service providers are covered by the monetary purchase volume for transportation costs generated from the ERP system.</li> </ul> <p><b>Emission factors (secondary):</b></p> <ul style="list-style-type: none"> <li>a. The website ecotransit.org was used to determine the greenhouse gas emissions for the transportation of wire, strip and plastic granulate from suppliers to Dietz.</li> <li>b. The transports carried out by the two transport service providers mentioned are considered zero in the balance sheet.</li> <li>c. The conversion factor of the Scope 3 Analyzer was used for the monetary purchasing volume.</li> </ul>	<ul style="list-style-type: none"> <li>a. The quantities of wire and strip transported by each supplier were entered in tons at ecotransit.org. The supplier's location was selected as the place of shipping and the Dietz company was selected as the place of destination. It was assumed that all deliveries were made by truck.  Assumptions: Size: 26-40 tons, fuel: diesel, emission standard: EURO 5, load factor: 60 %, percentage of empty runs: 20 %</li> <li>b. The emissions data of the transport service providers were set to zero.</li> <li>c. In the case of transport emissions, which are calculated using the monetary purchase volume, the costs of the above-mentioned transport service providers were first deducted to avoid double counting. The expenditure (€) was then multiplied by the conversion factor (kg CO<sub>2</sub>e/€) of the Scope 3 Analyzer.</li> </ul>
Description of data quality		medium
Percentage of emissions with supplier-specific emission factors:		0 %
<b>Scope 3.5</b>	<p><b>Activity data (primary):</b></p> <ul style="list-style-type: none"> <li>a. The quantities of solid waste for disposal in a waste incineration plant were taken from invoices and the waste balance sheet.</li> <li>b. The quantity of waste water was taken from invoices.</li> <li>c. The quantity for the disposal or treatment of waste oil was taken from invoices and the waste balance sheet.</li> </ul> <p><b>Emission factors (secondary):</b></p>	<ul style="list-style-type: none"> <li>a. The emissions from waste incineration with thermal utilization were determined by multiplying the amount of waste (kg) and the emission factor (kg CO<sub>2</sub>e/kg).</li> <li>b. The amount of waste water (kg) was multiplied by the corresponding emission factor (kg CO<sub>2</sub>e/kg).</li> <li>c. The quantity of waste oil disposed of (kg) was multiplied by the assigned emission factor (kg CO<sub>2</sub>e/kg).</li> </ul>



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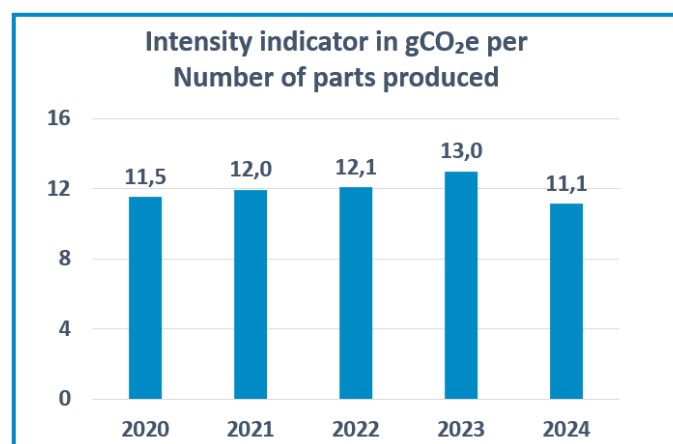
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	<p>a. The emission factor for thermal utilization in a waste incineration plant was taken from the GEMIS 5.1 database.</p> <p>b. The emission factor for waste water treatment was taken from the BAFA CO<sub>2</sub> factors information sheet</p> <p>c. The emission factor for the disposal of waste oil was taken from the BAFA CO<sub>2</sub> factors information sheet</p>	
Description of data quality		medium
Percentage of emissions with supplier-specific emission factors:		0,10 %
<b>Scope 3.7</b>	<p><b>Activity data (primary):</b></p> <p>The data was determined with the help of a personal questionnaire of all employees from the data for the years 2020 to 2022. As employee commuting only accounts for a small percentage of total Scope 3 emissions, an average distribution of means of transport was calculated based on the three years. An annual survey would be disproportionate in terms of costs and benefits.</p> <p><b>Emission factors (secondary):</b></p> <p>The emission factors for passenger-kilometers were taken from the Probas database, GEMIS 5.0 and the Umweltbundesamt.</p>	<p>The calculation took into account the distribution of different means of transportation, individual vacation requirements and the distance between home and work. However, the assumption was made that each employee travels to Dietz five days a week. The calculated kilometers were then multiplied by the corresponding emission factors of the means of transport.</p>
Description of data quality		medium
Percentage of emissions with supplier-specific emission factors:		0 %

## 6 Intensity indicator

In order to improve the comparability of the corporate carbon footprint in relation to production output, the intensity indicator was defined. It is composed of the following quotients:

$$\text{Intensity indicator} = \frac{\text{Emissions from Scope 1, 2, 3}}{\text{Number of parts produced}}$$



Absolute CO<sub>2</sub>e emissions have fallen by 13.7%. The intensity indicator has fallen by 14.27% to 11.1 gCO<sub>2</sub>e. As the intensity indicator is heavily dependent on our product mix and purchase prices, it is difficult for us to influence. However, thanks to some supplier-specific emission factors, we can specify the figure more precisely each year. Nevertheless, attributes such as production services or purchased capital goods are currently still based on purchase values and are therefore price-dependent.

The list shows that the largest CO<sub>2</sub>e emitters are hidden in the area of primary materials and external production. This is due to the energy-intensive production of the materials we use, such as steel, copper, brass, tantalum, etc.

We were already able to make our transportation climate-neutral in 2024. We work together with a service provider in this area, which covers the compensation through a surcharge.

We have set ourselves the goal of reducing emissions per part produced by 20% from 11.66 g to 9.33 g by 2025.

## 7 Greenhouse gas reduction target

In 2024, Dietz will emit 11.1 gCO<sub>2</sub>e of greenhouse gases for the production of one part. This figure is to be reduced to 9.33 gCO<sub>2</sub>e by 2025. The greenhouse gas reduction target is thus defined as follows:

Dietz GmbH has set itself the target of reducing CO<sub>2</sub>e emissions per part produced by 20% from 11.66 g CO<sub>2</sub>e to 9.33 g CO<sub>2</sub>e by 2025.

The intensity indicator has fallen by 14.27% to 11.1 gCO<sub>2</sub>e in 2024.

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