



Vector CO₂-balance sheet 2023

Vector Informatik GmbH

1 Master data

- > Time frame of the balance sheet: 01.01.2023 - 31.12.2023 (version 6.0)
- > Number of employees: 3,081 (as at 31.12.2023)
- > Size of the operating area: 112.042 m²
- > Annual Turnover: 990.758.154,00 €
- > NACE code: 62.01 - Programming activities: Development and provision of software and hardware products for the automotive and related industries
- > Balance sheet type: Company (no change in method compared to version 5.0)
- > Considered: All German branches (owned and leased buildings with influence by Vector)
- > Not considered: All branches outside Germany
- > Unit of analysis: kg CO₂e
- > Main processes: Sales, Customer Training, Support, Customer Project Management, Product Management, Development, Consulting, Purchasing, Production and Logistics
- > Management processes: Leadership and Personnel Development, LineOrg, Legal, InfoSec, Process Management, Controlling
- > Support processes: Staffing and Employees, Facilities & Brand, IT Infrastructure, Finance

2 System boundaries

The report was prepared using the "Ecocockpit" of the Baden-Württemberg Chamber of Industry and Commerce¹. The CO₂ factors originate mainly from the sources stored there, partly supplemented by estimates. Scenario analyses were carried out on employee mobility and outgoing logistics. Compared to version 5.0 of the report, additional data sources have been integrated, increasing accuracy while the methodology remains unchanged. Our energy consumption is regularly monitored using software to optimize processes. Renewable energies such as solar and wind power (quality class: "German wind power") are also considered. The delay in publication is due to the delayed availability of consumption data.

No shifts in emissions were identified, as key processes remain internal. Vector does not have any production-intensive processes with multiple outputs, so no allocation was necessary. Land use changes are not relevant as we do not use any agricultural or forestry land.

The report shows all emissions in CO₂ equivalents (CO₂e)². This means that in addition to CO₂ other greenhouse gases regulated by the GHG Protocol can also be included in the calculations. These are converted to the global warming potential of CO₂ and thus result in the CO₂e. Within the system boundaries, the main sources of emissions in the company were recorded, including direct emissions and indirect emissions from purchased energy sources. For certain uncertainties in the survey, we have included a safety margin of 20%. All assumptions were fully and comprehensively documented, including detailed references to calculation and accounting methods and data sources. Reliable data sources, regular verification and transparent documentation ensure that greenhouse gas emissions are neither underestimated nor overestimated to create a sound basis for decision-making.³ The data can be recorded or updated at any time to ensure completeness.

¹ The LHK "Ecocockpit" is a free and user-friendly tool for balancing greenhouse gas emissions. It enables standardized reporting in accordance with the Greenhouse Gas Protocol Corporate Standard (GHG Standard) and offers convenient input of consumption data as well as a large selection of preset emitters.

² For the sake of simplicity, these are referred to as "CO₂".

³ The calculation bases and source references were documented separately and can be provided if required. They are based on primary data (from our activities) and secondary data (from databases and studies).

2.1 Legal requirements and compliance

To guarantee an accurate and complete greenhouse gas balance and ensure comparability over the years, we have based our report on the GHG Protocol Corporate Standard. This standard provides clear guidelines for the quantification and reporting of greenhouse gas emissions.

Our greenhouse gas balance sheet essentially complies with the requirements of the Corporate Sustainability Reporting Directive (CSRD) and the Federal Climate Protection Act (Section 15 KSG), which stipulate detailed reporting on greenhouse gas emissions and measures to reduce them.

Our greenhouse gas balance has not been certified by independent testing organizations. However, we are aiming for ISO 50001 certification to improve the accuracy and credibility of the data. In addition, we monitor and reduce our environmental impact through established environmental management processes based on ISO 14001. A corresponding certification is also planned.

2.2 Accounting area and accounting boundaries

- > **Accounting boundary:** "cradle-to-gate" (within own system boundaries)
- > **Issuers not included in the balance sheet:** raw material extraction, purchase of goods & services (poor data situation), inbound logistics, leasing, franchising, investments, disposal and recycling, and use of products by customers.

The "cradle-to-gate" approach records the CO₂ emissions directly associated with the development and provision of Vector software and hardware products.⁴ In particular, this includes the energy supply and energy consumption of the offices and our own data centers. As a software service provider, we do not have our own production facilities, so emissions from the extraction of raw materials, inbound logistics and the use and disposal of our hardware products are less relevant, as they only account for a small proportion of total emissions and are immaterial to our objectives. Nevertheless, we have tried to take downstream transportation into account. Leasing and franchising are not part of the Vector value chain. CO₂ emissions from investments are currently difficult to quantify. For example, there are no standardized methods or access to emission factors for capital goods. Application data on the use of our products is not currently known or accessible to us.

3 Relevant key figures and issuers by scope

- > Emissions relative to employees: 1,155.70 kg CO₂e per employee⁵
- > Emissions relative to turnover: 0.003594 kg CO₂e per €
- > Total emissions, without safety surcharge: 3,560,699.41 kg CO₂



Figure 1: Recording of emissions according to Scope 1, 2 and 3, including 20% safety margin

⁴ As maintenance is carried out without any relevant problems, defects or leaks, fugitive emissions and process emissions are not relevant for us in the Scope 1 emissions. The energy consumed in our own server rooms is included in the Scope 2 emissions. Steam, district heating and district cooling are not used. When recording Scope 3 emissions, we focused on the areas of business travel, employee mobility, waste disposal (household waste), catering by CANTine and transport and distribution (outgoing logistics), as this is where the data is best available.

⁵ According to the Federal Environment Agency (UBA), German greenhouse gas emissions per person, considering the export and import of goods, currently average 10.3 tons of CO₂e per year.

We avoid emissions wherever possible. The remaining CO₂ emissions per area are referred to as the residual value. The reference value is the CO₂ emissions (in tons) per employee, which can also be compared across regions and companies. We have made further improvements compared to 2022, primarily using sustainable electricity. The value of the CO₂ footprint increased from 0.02 t CO₂e per employee to around 1.156 t CO₂e per employee, as more data could be included in the data collection and the significance of the key figure has generally increased as a result. We cover part of our electricity requirements with electricity from our own PV solar systems. The rest of our electricity requirements are already covered 100% by electricity from renewable sources. We mainly use geothermal energy for cooling and heating. Table 1 contains a detailed list of emitters.

We have also launched projects for CO₂-neutral building operations in Germany and CO₂-neutral IT operations at⁶. We focus on sustainable construction in our own buildings and have already been able to equip several buildings with DGNB certificates (platinum/diamond). Our vehicle fleet concept has been revised so that only electric vehicles will be purchased in future and combustion engines will gradually disappear from use.

We offset the CO₂ emissions caused by business air travel with certificates from "atmosfair". When traveling by train, our employees only use Deutsche Bahn trains that are 100% powered by green electricity. Our goal is to become carbon neutral in Scope 1 and 2 by 2035.

Scope 1				
Direct greenhouse gas emissions from Vector:				
Issuer	Quantity	Unit	Relative share	Absolute share
Gasoline (refueling)	71.869,50	Liter	6,63%	206,928.53 kg CO ₂
Diesel (refueling)	23.768,27	Liter	2,36%	73,737.97 kg CO ₂
Electricity (EEW) 2022 (refueling)	8.817,40	kWh	0,10%	3,227.17 kg CO ₂
Scope 2				
Indirect greenhouse gas emissions of Vector resulting from the purchase of energy:				
Issuer	Quantity	Unit	Relative share	Absolute share
Electricity from renewable sources (EEW)	8.954.501,00	kWh	0%	0.00 kg CO ₂
Gas	2.953.494,00	kWh	19,01%	593,652.29 kg CO ₂
Scope 3				
Indirect greenhouse gas emissions from the upstream and downstream Vector value chain:				
Issuer	Quantity	Unit	Relative share	Absolute share
Flight (domestic)	59.405,00	km	0,40%	12,644.95 kg CO ₂
Flight (International)	2.699.453,00	km	10,06%	314,297.31 kg CO ₂
Transport & distribution with external service providers (road, air and sea freight)	10.643.920,00	t/km	7,13%	222,817.00 kg CO ₂
Disposal (household waste landfill)	373.840,00	kg	27,64%	984,208.57 kg CO ₂
Water (drinking and wastewater)	28.794,00	m ³	0,21%	6,587.61 kg CO ₂
Directions for employees	220	Working days	15,01%	468,791.40 kg CO ₂
Food (CANTine)	139.210,12	kg	21,58%	673,806.61 kg CO ₂

Table 1: Recording of emissions according to Scope 1, 2 and 3, without safety margin

⁶ For example, when procuring new IT systems, only energy-efficient devices are purchased, or electronic documents are increasingly used instead of paper printouts. Computer hardware that is no longer needed is donated.