



# Mercedes-Benz Group AG Task-force on Climate-related Financial Disclosure (TCFD) Report

For the year-ended December 31, 2023



## MERCEDES-BENZ GROUP AG TCFD INDEX

Mercedes-Benz Group AG is one of the world's most successful automotive companies. With Mercedes-Benz AG, the Group is one of the leading global suppliers of high-end passenger cars and premium vans. Mercedes-Benz Mobility AG offers financing, leasing, car subscription and car rental, fleet management, digital services for charging and payment, insurance brokerage, as well as innovative mobility services.

The company is listed on the Frankfurt and Stuttgart stock exchanges (ticker symbol MBG). In 2023, the Group had a workforce of around 166,000 and sold around 2.5 million vehicles. Group revenues amounted to €153.2 billion and Group EBIT to €19.7 billion.

All data in this TCFD report is as of, or for the year-ended December 31, 2023 unless otherwise noted. References to the CDP Climate Change Questionnaire are related to the 2023's version.

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## Governance

### Disclose the organization's governance around climate-related risks and opportunities.

#### a) Describe the board's oversight of climate-related risks and opportunities

The Group's own governance structure consists of the Board of Management and the Supervisory Board and corresponds to the dual management structure required for a joint stock company under German law.

The Supervisory Board of Mercedes-Benz Group AG monitors the implementation of the sustainable business strategy. It is therefore important that it and its committees are appropriately informed about the relevant sustainability issues in the areas of environment, social affairs and governance. To ensure this, ESG topics are regularly addressed in the Supervisory Board meetings.

ESG experts from different departments are consulted for this purpose.

At regular intervals, the Supervisory Board obtains reports from the Board of Management on the status of implementation of the sustainable corporate strategy and also examines the risks and opportunities for the company that result from social and environmental factors and, increasingly, the ecological and social effects of the company's business activities. The Supervisory Board also addresses sustainability reporting in the form of the Non-Financial Declaration in the Combined Management Report.

ESG-related topics were also discussed during the strategy meeting of the Supervisory Board. In addition, the members of the management and supervisory bodies regularly discuss the progress made in implementing the sustainable business strategy with the Advisory Board for Integrity and Sustainability.

In the area of sustainability/ESG, Dame Polly Courtice contributes the expertise she has gained in ESG matters as a result of having served for many years as Director of the University of Cambridge Institute for Sustainability Leadership. Dr Martin Brudermüller, Ben van Beurden and Timotheus Höttges in particular contribute to the Supervisory Board their knowledge of and experience with environmental (E) issues. All of them deal or dealt extensively with sustainability issues (in particular those relating to climate change mitigation and decarbonisation) at the companies in which they serve or served as chairman of the board of management.

#### References:

CDP Climate Change Questionnaire:  
C.1.1a / C1.1b  
Annual Report 2023 p. 174, 186  
Sustainability Report 2023 p. 15, 17

### b) Describe management's role in assessing and managing climate-related risks and opportunities.

At the end of July 2023, the Supervisory Board decided to establish a cross-departmental management and coordination function for Group-wide sustainability management at the Board of Management level. Renata Jungo Brüngger took over the corresponding function of Sustainability Coordinator on 1 August 2023.

Her Board of Management central division is now called Integrity, Governance & Sustainability (formerly Integrity and Law).

The previous central management body for sustainability – the Group Sustainability Board (GSB) – was replaced by the Group Sustainability Committee (GSC) during the year under review.

This new body meets on a quarterly basis and is chaired by Renata Jungo Brüngger in her capacity as Sustainability Coordinator. The committee, which is made up of representatives from top management, is responsible for the holistic management of ESG topics across all functions, divisions and regions in line with goals and targets, KPIs and areas of responsibility. The members of the GSC are also responsible for addressing sustainability topics in the functions they manage.

In addition, Sustainability Coordination Meetings (SCMs) are held in which the GSC discusses sustainability topics and issues with representatives from all relevant divisions and specialist units. SCMs are conducted regularly every 14 days and are chaired by the Sustainability Competence Office (SCO). The SCO itself provides advice to the specialist units and helps them complete the tasks assigned to them by the Board of Management or the GSC.

The SCO also monitors the progress made in the six areas of action and the three enablers defined in the sustainable business strategy. The results of these analyses during the year are reported to the GSC and the Board of Management of Mercedes-Benz Group AG in the form of detailed scorecards at least twice a year.

The Board of Management of the Mercedes-Benz Group is responsible for setting and reviewing strategic targets, including those for reducing CO<sub>2</sub> emissions. The Product Steering Board (PSB) at Mercedes-Benz Cars is responsible for the passenger car fleet. In particular, it monitors how CO<sub>2</sub> emissions are developing in comparison with the statutory targets in CO<sub>2</sub> - regulated markets. The PSB is assigned to the Committee for Model Policy and Product Planning (AMP).

At Mercedes-Benz Vans, compliance with the CO<sub>2</sub> fleet limits for the van fleet is ensured by the Business Unit and

Product Strategy department, which reports regularly to the Van Executive Committee.

The AMP and the Van Executive Committee regularly report to the Board of Management of the Mercedes-Benz Group on the development of CO<sub>2</sub> emissions. The Board of Management then decides on the requisite measures. On the market side, price and volume control measures can also have an impact on whether the CO<sub>2</sub> targets are achieved.

The responsibility for ensuring that the climate protection targets are implemented is distributed across several corporate units and Board of Management members: at vehicle level, the development departments of the vehicle divisions are responsible; for passenger cars and vans, these are the Powertrain Product Group development department and the vehicle product groups as well as Mercedes-Benz Vans Development.

In each current year, the sales unit manages the achievement of the CO<sub>2</sub> target. At the level of the production plants and the company's own-retail outlets, the responsible Board of Management member for Mercedes-Benz Cars and the responsible management member of Mercedes-Benz Vans is responsible. The Mercedes-Benz Group monitors implementation as part of Group management.

**References:**

CDP Climate Change Questionnaire: C1.2  
Annual Report 2023 p. 78  
Sustainability Report 2023 p. 15, 72 f.

## Strategy

### Disclose the actual and potential impacts of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning where such information is material.

#### a) Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.

The Mercedes-Benz Group is exposed to different risks that are directly linked with the business activities of Mercedes-Benz Group AG and its subsidiaries or that result from external influences. The Mercedes-Benz Group defines risk as the danger that events, developments or actions will prevent the Group or one of its divisions from achieving its objectives. This includes monetary and non-monetary risks. At the same time, it is important to identify opportunities in order to safeguard and enhance the competitive capability of the Mercedes-Benz Group.

The Mercedes-Benz Group defines an opportunity as the possibility of securing or exceeding the planned goals of the Group or a business division as a result of events, developments or actions.

In order to identify these risks and opportunities at an early stage and assess and manage them systematically, adequate and effective management and control systems, which are clustered into a risk and opportunity management system, are applied. Opportunities and risks are not offset.

In identifying sustainability-related risks and opportunities, Mercedes-Benz Group AG is guided by the topics identified by the materiality assessment and thus includes the areas of action of the sustainable business strategy, for which concrete goals have been assigned.

Sustainability-related risks and opportunities are understood to be conditions, events or developments related to environmental and employee issues as well as social factors

(environmental, social and governance — ESG), the occurrence of which may have an actual or potential impact on the Mercedes-Benz Group's profitability, cash flows and financial position, as well as on its reputation. ESG-related risks associated with business activities, business relationships and products and services, and which are very likely to have a serious negative impact on non-financial aspects in accordance with Section 289c of the German Commercial Code (HGB), are not currently apparent.

Climate-related risks and opportunities in connection with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) are associated with environmental issues and are thus also identified and assessed as part of the risk management process.

### General market risks and opportunities

A lower-than-expected market acceptance of electric vehicles can lead to risks in the development of unit sales and have a negative impact on earnings. This could also endanger the achievement of specific CO<sub>2</sub> targets.

Industrial policy measures to strengthen local value creation in various countries, as well as government purchase incentives for locally produced electric vehicles, can result in competitive disadvantages and declining vehicle sales in the respective markets.

Opportunities may arise from an improvement in the competitive situation or a more positive development of demand. The utilization of opportunities is supported by sales and marketing campaigns.

The launch of new products by competitors, more aggressive pricing policies and less effective pricing for products such as electric vehicles can lead to increasing

competitive and price pressure in the automotive segments and have a negative impact on profitability. The discontinuation or reduction of government subsidies for electric vehicles can also negatively affect their pricing and cut profit margins.

#### **Risks and opportunities relating to the legal and political framework**

Legal limits on the fuel consumption and/or CO<sub>2</sub> emissions of car fleets exist in many markets, although the target values differ from market to market. Non-compliance with regulations applicable in the various markets might result in significant penalties and reputational harm, and might even mean that vehicles with conventional drive systems could not or could no longer be registered in the relevant markets. The Mercedes-Benz Group counteracts this risk through the transformation towards electric mobility and the associated realignment of its product portfolio.

Mercedes-Benz Cars and Mercedes-Benz Vans face the described risks with respect to regulations concerning mandatory targets for the average fleet fuel consumption and CO<sub>2</sub> emissions of new vehicles especially in the markets of China, Europe and the United States. The Mercedes-Benz Group gives these targets due consideration in its product and sales planning. The market success of alternative drive systems is greatly influenced not only by customer acceptance but also by regional market conditions such as the battery-charging infrastructure, state support and tax conditions.

#### **Procurement market risks and opportunities**

Intense competition for specific raw materials in the course of the introduction of new technologies can lead to increasing costs or possible shortages in the supply chain. Raw-material markets can always be

impacted by uncertainties and political crises — combined with possible supply bottlenecks — as well as by volatile demand for specific raw materials

#### **Risks and opportunities from research and development**

Technical developments and innovations are of key importance for the safe and sustainable mobility of the future. The transformation towards electric mobility and the comprehensive digitalization of vehicles has resulted in ambitious development targets and the market launch of new technologies. In addition to the resulting opportunities, decisions in favour of certain technologies and the continuously growing scope of emission, consumption and safety requirements to be met are associated with risks.

There are risks that vehicles cannot be developed within the planned time frame, in the appropriate quality or at the specified costs.

This is particularly the case with regard to electric mobility and increasing digitalization as well as software in the vehicle architecture.

The Mercedes-Benz Group counters these risks by continuously and systematically monitoring all vehicle projects.

#### **Production risks and opportunities**

The launch of new products involves risks with regard to the availability of required components, the scope of equipment and the necessary production capacities — especially in the course of the transformation toward electric mobility and the integration of new technology. To reduce the attendant risks, the related processes are continuously evaluated and improved.

### Risks and opportunities from purchasing and logistics

Due to the transformation to electric mobility and the outsourcing of important components, there is also a risk that these will not be available on time in the planned quantity and required quality; this could delay the start of production of new series. Risks may also arise from uncertainties in the planned quantities. This could have negative effects on profitability.

### Personnel risks and opportunities

Competition for highly qualified staff and management is still very intense in the industry and the regions in which the Mercedes-Benz Group operates. The Group's future success also depends on the extent to which it succeeds over the long term in recruiting, integrating and retaining specialist employees. The established human resources instruments take such personnel risks into consideration.

One focus of human resources management is the targeted personnel development and further training of the workforce.

### Regulatory risks

The automotive industry is subject to extensive governmental regulations worldwide. Laws in various jurisdictions govern occupant safety and the environmental impact of vehicles, including emissions levels, fuel economy and noise, as well as the emissions of the plants where vehicles or parts thereof are produced.

Furthermore, regulation, particularly in the European Union, governs the external reporting on ESG topics (environmental, social or governance topics), whereby the complexity of such regulation is continuously increasing. The introduction of certain new regulations may initially be associated with uncertainties relating to their interpretation.

In case regulations applicable in the different regions are not complied with, this could result in significant penalties, damages claims and reputational harm or, in case of regulations applicable to vehicles, the inability to certify vehicles in the relevant markets. The cost of compliance with these regulations is considerable, and in this context, Mercedes-Benz continues to expect a significant level of costs.

### References:

CDP Climate Change Questionnaire:  
C2.1a / C2.3 / C2.3a / C2.4 / C2.4a  
Annual Report 2023 p. 143, 146 ff.  
Sustainability Report 2023 p. 17

### b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.

As a player in the transport sector, the Mercedes-Benz Group supports the Paris Climate Agreement: it is convinced of the objectives of the agreement and endeavours to implement them in all its divisions. Around one fifth of greenhouse gas emissions in Europe are caused by the transport of people and goods by road. The Mercedes-Benz Group is taking deliberate measures to counteract this trend and has made climate protection a key element of its business strategy. The Group's ambition is to make the entire Mercedes-Benz new vehicle fleet net carbon-neutral<sup>1</sup> across all stages of the value chain by 2039.

To achieve this, the Mercedes-Benz Group is transforming its products and the services that are the mainstay of its business.

<sup>1</sup> Net carbon-neutral means not causing any CO<sub>2</sub> emissions and compensating any CO<sub>2</sub> emissions that do occur through certified projects to offset emissions.

In the same way, the Group takes climate protection into account in all lifecycle phases of its automobiles – from the supply chain and its own production to the use and disposal of the vehicles. The Mercedes-Benz Group sets itself ambitious targets for CO<sub>2</sub> reduction in the individual phases, and systematically analyses the resulting CO<sub>2</sub> emissions and other environmental impacts along its entire value chain.

The Group's goal is to reduce CO<sub>2</sub> emissions per car across the entire value chain up to 50% by the end of this decade, compared to 2020. The goal of reducing the CO<sub>2</sub> emissions of the Mercedes-Benz new vehicle fleet during the use phase (well-to-wheel) by more than 40% compared to 2018 has been confirmed by the Science Based Targets initiative (SBTi).

The most important levers for reducing CO<sub>2</sub> emissions in the vehicle sector are electrification of the vehicle fleet,

charging with green electricity, improving battery technology, decarbonising the supply chain and the comprehensive use of renewable energies in production. The Mercedes-Benz Group has confirmed its goal of improving the framework conditions for decarbonising the economy and society worldwide through its membership in the initiatives “The Climate Pledge” and “Transform to Net Zero” since 2020.

### **Climate protection in vehicles and services**

The Mercedes-Benz Group sees the complete electrification of its product range as the most important lever for achieving net carbon-neutrality across all stages of the value chain by 2039<sup>1</sup>. With regard to its strategy, the Mercedes-Benz Group is staying focused and tactically flexible. In line with this, the Mercedes-Benz Group has partially adjusted the targets and target corridors for electrification based on market conditions and customer needs.

Mercedes-Benz Cars and Mercedes-Benz Vans are taking the necessary steps to go all-electric. Customers and market conditions will set the pace of the transformation. Mercedes-Benz Cars and Mercedes-Benz Vans plan to be in a position to cater to different customer needs, whether it's an all-electric drivetrain or a combustion engine, until well into the 2030s.

CO<sub>2</sub> emissions are not only produced during the manufacture of components for fully electric vehicles, but also during the generation of the charging current. The more charging current comes from renewable sources, the more climate-friendly fully electric vehicles are. Against this backdrop, the “Green Charging” initiative is a further step on the road to net carbon-neutral mobility: with this, the Mercedes-Benz Group enables its customers to charge their vehicles with green electricity.

Through the use of certificates of origin, it is ensured that an equivalent amount of electricity from renewable sources is fed into the power grid for the charging processes.

The Mercedes-Benz Group already confirmed its intention to accelerate the transition to electromobility at the UN Climate Change Conference COP26 in November 2021. In the “COP26 declaration on accelerating the transition to 100% zero emission cars and vans” it has joined forces with other companies, cities and governments to work towards a net carbon-neutral transport system of the future.

Alongside the development and production of electric vehicles, the Mercedes-Benz Group also wants to improve the framework conditions for the use of electric vehicles worldwide. To this end, the Group is planning to set up a global Mercedes-Benz charging

<sup>1</sup> Net carbon-neutral means not causing any CO<sub>2</sub> emissions and compensating any CO<sub>2</sub> emissions that do occur through certified projects to offset emissions.



network in North America, Europe, China and other key markets. With its own global charging network, the Mercedes-Benz Group seeks to set new standards for fast, convenient and green charging of electric vehicles. In October 2023, the first Mercedes-Benz Charging Hub went into operation in Chengdu (China), followed by two further charging hubs in Atlanta (USA) and Mannheim (Germany). By the end of the decade, more than 2000 charging hubs with over 10,000 charging points are to be created worldwide.

The Mercedes-Benz Group pursues a holistic approach to battery technology along the entire value chain – from research and development to recycling. The ramp-up of electric vehicles depends on the right battery technologies and access to raw materials. To this end, the Group is focusing on expanding strategic partnerships with battery cell producers that supply the Mercedes-Benz Group's global battery production network with

battery cells and modules manufactured in a net carbon-neutral manner. The Group also seeks to diversify its raw material procurement and strengthen the resilience of its supply chains, thereby reducing dependencies.

#### **Climate protection in the supply chain**

The supplier network plays a decisive role in achieving the climate targets: the production of a fully electric vehicle is around twice as CO<sub>2</sub>-intensive as that of a conventional combustion engine vehicle, mainly owing to the lithium-ion batteries.

The Mercedes-Benz Group has various levers at its disposal to avoid and reduce CO<sub>2</sub> emissions – for example in the design of the electric vehicle portfolio or at the Group's own production locations. But it is also a fact that the Mercedes-Benz Group can only partially influence some areas. This includes e.g. the energy mix used in the use phase of the vehicles, or for production of outsourced components in the country of origin.

To reduce CO<sub>2</sub> emissions in the supply chain, Mercedes-Benz Cars and Mercedes-Benz Vans are accelerating the transformation of their suppliers and business partners. They use three levers to achieve this: With the "Ambition Letter", which applies to all new contracts, the suppliers assure the segments that they will supply Mercedes-Benz Cars and Mercedes-Benz Vans exclusively with net carbon-neutral<sup>1</sup> products from 2039 at the latest.

Mercedes-Benz Cars and Mercedes-Benz Vans have also integrated target values for CO<sub>2</sub> emissions into their criteria for award processes – the focus is on components that are produced in a CO<sub>2</sub>-intensive manner. These targets not only apply to direct suppliers, but also to the upstream production of raw materials and components.

Both segments continue to work together with selected partners.

The aim is to reduce CO<sub>2</sub> emissions in the supply chain – especially in the production of important components such as battery cells or bodyshell components – through innovative technologies

#### **Climate protection in production**

The aim of the Mercedes-Benz Group is to achieve net carbon-neutral production in its own production plants by 2039. This is to be achieved by covering energy consumption with 100% renewable energies.

On the way there, the CO<sub>2</sub> emissions generated during vehicle production, particularly through the use of fossil fuels, are to be systematically reduced and, where possible, avoided altogether. To achieve this, Mercedes-Benz is focussing on the purchase of green electricity, the expansion of renewable energies at its own locations and the implementation of a sustainable heat supply.

<sup>1</sup> Net carbon-neutral means not causing any CO<sub>2</sub> emissions and compensating any CO<sub>2</sub> emissions that do occur through certified projects to offset emissions.

By 2030, the Mercedes-Benz Group plans to reduce CO<sub>2</sub> emissions in the production plants (Scope 1 and Scope 2) by 80% compared to 2018. The target set and confirmed by the SBTi to reduce the CO<sub>2</sub> emissions in Mercedes-Benz's own production plants (Scope 1<sup>1</sup> and 2<sup>2</sup>) by 50% by 2030 in comparison to 2018<sup>3</sup> figures was already achieved back in 2022, and is also being pursued beyond the production locations for the central functions under consideration. All production plants operated by the Mercedes-Benz Group have been net carbon-neutral in terms of Scope 1 and Scope 2 since 2022. Since 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) from these plants that have so far proved unavoidable have been compensated by carbon offsets from qualified climate protection projects.

### Financial Planning

The implementation of the sustainable business strategy of the Mercedes-Benz Group requires substantial investments. The Mercedes-Benz Group is investing significant amounts in all-electric vehicle architectures, drivetrains and batteries. In 2023, the share of investments in electric vehicles was 47%<sup>4</sup>.

The Groups taxonomy-aligned capital expenditure increased 29% year over year in 2023. This was mainly due to an increase of 47% in taxonomy-aligned investments in intangible assets. Above all, this includes capitalised development cost for the transformation to all-electric vehicles.

In addition, the Group is investing in the decarbonisation of its value chain, e.g. charging infrastructure (well-to-tank), own production, end-of-life (recycling), but also in the qualification of its employees.

To ease the ramp up of electric vehicles the Board of Management of Mercedes-Benz Group AG has adopted the planned capital expenditure for the construction of Mercedes-Benz own high-power charging stations as part of the corporate planning covering the period 2024 to 2028. The CapEx plan contains total capital expenditure in the amount of around €1.4 billion (whereof €30 million are accounted for the year 2023).

To systematically reduce the CO<sub>2</sub> emissions generated in vehicle production the Mercedes-Benz Group is also committed to the expansion of renewable energies at its own locations. By 2025, the Group will make further investments to drive forward the expansion and installation of photovoltaic systems (PV systems) at its locations worldwide.

In Kuppenheim (Germany) the Mercedes-Benz Group is investing a double-digit million Euro amount in the construction

of a net carbon-neutral battery recycling factory, cutting resource consumption and establishing closed-loop recycling of battery raw materials.

As part of the “Turn2Learn” training campaign for its employees launched in 2022, the Group aims to invest more than €2 billion in worldwide training by 2030, of which €1.3 billion will be in Germany alone.

The Mercedes-Benz Group's Green Finance Framework, which was developed in 2020 and updated in 2023, makes it possible to finance investments in the development, production and customer financing of all-electric vehicles in a targeted manner, for example through bonds or loans.

The Mercedes-Benz Group applies market-specific internal CO<sub>2</sub> transfer prices in product development. Based on these CO<sub>2</sub> transfer prices, product development monetises and evaluates

1 Scope 1 emissions are direct CO<sub>2</sub> emissions from sources for which the company is directly responsible or that it directly controls. 2 Scope 2 emissions are indirect CO<sub>2</sub> emissions from purchased energy such as electricity and district heating that are generated externally but consumed by the company. 3 In 2018 the Scope 1 emissions amounted to 650,000 tonnes of CO<sub>2</sub>, while the Scope 2 emissions totalled 1,040,000 tonnes of CO<sub>2</sub>. 4 Proportion of Taxonomy-aligned CapEx PP&E and R&D expenditure Mercedes-Benz Group; detailed reporting on EU Taxonomy in the Group's Annual Report 2023

measures to reduce CO<sub>2</sub> emissions when driving, and to increase the energy efficiency of its vehicles in order to ensure that CO<sub>2</sub> targets are achieved cost-effectively.

To evaluate sustainability-related investment decisions, the Group uses an internal carbon transfer price for its own production and logistics

### **Consideration of sustainability related aspects in connection with the recognition and measurement of assets and liabilities**

Accounting estimates and management judgements in connection with sustainability-related aspects are taken into consideration in particular in the accounting of assets and liabilities described below:

The determination and review of the useful lives of the capitalized development costs are based on the expected product life cycle. Changes in the originally envisaged product life

cycles can result from the transformation to all-electric vehicles. Due to the resolutions regarding the accelerated transformation new developments in the area of conventional powertrains are reduced and already capitalized development expenditure will partly be used for longer.

In the same way, the useful lives of property, plant and equipment assets are regularly reviewed in the light of the transformation to all-electric vehicles. This did not require any material adjustments of the useful lives up to the reporting date as the production facilities of the Group are basically flexible in use.

In the context of production network management, efforts are also being made to secure sites affected by the transformation by enhancing them. No significant obligations to dismantle or remove production facilities and plants that would give rise to a provision existed on the reporting date.

The recoverability of leased vehicles classified as operating leases is reviewed regularly. When determining recoverability, the expected residual value of the leased vehicles is particularly relevant.

Due to the transformation to all-electric vehicles, residual values can be influenced by changing customer behaviour, new regulatory requirements and further technological developments. Although the currently expected residual values of all-electric vehicles were lower than originally expected, no significant impairment losses were required for conventionally powered or all-electric vehicles in the reporting year.

The expected proceeds from the disposal of vehicles pledged as collateral were taken into account in the determination of expected credit losses for receivables from financial services. The expected proceeds from the disposal were based on an estimate of the market value at the expected time of a possible default.

There were no indications of a reduction of these estimated market values that could be traced to effects of climate change or of changing customer behaviour as of the reporting date.

In addition to traditional energy supply contracts, which are usually only recorded as pending transactions upon delivery, the Group has concluded contracts to secure purchase quantities and prices for renewable energies (in particular electricity from wind and solar energy). These are contracts that provide for a fixed remuneration per unit of energy and are mainly recognized either as derivatives or leases.

The impairment test on the level of the cash-generating units is based on the corporate planning and strategy of the Mercedes-Benz Group. This provides for a step by step substitution of vehicles with combustion engines by electric vehicles. For the purposes of the impairment test, further risks (e.g. sales risks, price risks and risks regarding the future price of raw materials) were also

taken into account. Additional corporate planning parameters in connection with the transformation affect the investment requirements and the currently higher variable costs of all-electric vehicles in comparison with vehicles with conventional powertrains. The simultaneous development, model refinement and production of electric and conventionally powered vehicles results in a high investment requirement, particularly in the detail planning period until 2028. No growth was assumed in the derivation of the terminal value, due in part to the not yet completely predictable effects of the competitive situation and customer behaviour in the course of the transition to electric mobility. The impairment test carried out taking into account the transformation effects described did not result in any impairment requirement for the cash-generating units.

**References:**

CDP Climate Change Questionnaire: C2.3a / C2.4a / C3.1 / C3.2a / C3.2b / C3.3 / C3.4 Annual Report 2023 p. 224 f. Sustainability Report 2023 p. 21, 23 ff., 69 ff., 72, 86 f., 90 ff., 130

**c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.**

The Mercedes-Benz Group assesses potential climate-related risks and opportunities on the basis of various future scenarios. To identify and assess these risks, it differentiates between various types of risk as part of a scenario analysis:

Transitory climate risks are related to the transition to a low-carbon economy and result from changes in political framework conditions, technological developments and changing markets. In order to obtain a sound basis for its

analyses, the Mercedes-Benz Group examines generally recognised scenarios such as the “Net Zero Emissions by 2050 Scenario” (NZE) and the “Sustainable Development Scenario” (SDS) of the International Energy Agency (IEA).

Based on the risk dimensions defined in the Task Force on Climate Related Financial Disclosures (TCFD), the following conclusions can be drawn as examples.

**Technological development:** The analysis of the NZE scenario in particular reveals a significant increase in the share of electric vehicles in the global sales market. Based on the scenario data, a potential risk of losing market share is identifiable if companies are unable to meet this increasing demand. With their orientation as part of “Ambition 2039”, Mercedes-Benz Cars and Mercedes-Benz Vans are taking the necessary steps to go all-electric.

**Market:** Commodity markets have always been volatile, especially against the backdrop of ongoing geopolitical tensions and global crises. The global transformation and digitisation are also leading to increased demand for various battery raw materials, resulting in volatile prices, some of which are also experiencing multiplication owing to speculation. The Mercedes-Benz Group pursues a strategy for all directly and indirectly sourced raw materials that secures requirements in the long term and minimises supply risks. The focus is on the relevant battery materials, among other things. There are various models for the procurement of raw materials. One example is the strategic partnership with Rock Tech Inc., which is currently building a refinery for lithium hydroxide in Guben (Germany).

**Regulatory and political parameters:** Increasing regulatory requirements can lead to technical or financial challenges.

Among these, regulations covering vehicle emissions and fuel consumption play an important role. For example, every manufacturer in the EU has to achieve an individual CO<sub>2</sub> target for its new car fleet, and this increases over time.

Target achievement is regularly reviewed and is achieved through the development of highly efficient combustion engines as well as purely battery-powered electric vehicles and plug-in hybrids. Thanks to early investment in flexible production and the use of a state-of-the-art production system, Mercedes-Benz can produce fully electric vehicles (Battery electric vehicles – BEV) on a large scale and service the market with various drive technologies.

Long-term physical risks resulting from climate change are impacts that arise in connection with the increasing intensity of extreme weather events and changes in climatic conditions, such as flooding

or temperature increases. In order to examine potential physical, climate-related risk factors, a climate risk analysis was carried out on the basis of significant climatic dangers. The recognised scenarios of the Intergovernmental Panel on Climate Change (IPCC) SSP2-4.5 and SSP5-8.5 and various time horizons were taken into account. Based on the results, adaptation measures were analysed at relevant locations, including e.g. structural reinforcements to buildings and the construction of reservoirs.

**References:**

CDP Climate Change Questionnaire:  
C3.2 / C3.2a / C3.2b  
Sustainability Report 2023 p. 70 f.

## Risk Management

**Disclose how the organization identifies, assesses, and manages climate-related risks.**

**a) Describe the organization's processes for identifying and assessing climate-related risks.**

Sustainability-related risks and opportunities are an integral part of the Group-wide risk and opportunity management system. When identifying these risks and opportunities, the Mercedes-Benz Group is guided by the topics identified by the materiality assessment and thus includes the areas of action of the sustainable business strategy, which are assigned specific targets.

Sustainability risks and opportunities are defined as conditions, events or developments relating to ESG issues whose occurrence may have an actual or potential impact on the results of operations, financial position and net assets or on the reputation of the

Mercedes-Benz Group or whose occurrence may have a positive or negative impact on the economy, environment or society.

ESG topics – related to the environment – include the effects of climatic conditions and changes. Risks to the transformation process of the Group could arise due to changes in the political framework, technological developments and changing markets.

Risks and opportunities in connection with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) are environmental factors and are therefore also identified and assessed as part of the risk management process.

**References:**

CDP Climate Change Questionnaire:  
C2.1 / C2.2 / C2.2a  
Annual Report 2023 p. 142 f.  
Sustainability Report 2023 p. 18 f.

**b) Describe the organization's processes for managing climate-related risks.**

The risk and opportunity management system is integrated into the value-based management and planning system of the Mercedes-Benz Group and is a fixed component of the overall planning, management and reporting process in the companies, segments and corporate function.

The responsibility for operational risk management and for the risk management processes is borne by the segments, corporate functions, organizational units and companies. They report on the specific risks and opportunities to the next-higher level unit on a regular basis. Significant unexpected risks must be reported immediately. Risks and opportunities are managed within the Group by means of measures taken by the units responsible. The profitability of a measure is assessed before its implementation.

The possible impact and probability of occurrence of all risks and opportunities and the related measures that have been initiated are continually monitored. This information is passed on to Group Risk Management for reporting to the Board of Management, the Audit Committee and the Supervisory Board. Mercedes-Benz Group AG monitors implementation by the segments as part of its legal, regulatory and compliance functions.

As part of the planning process, risks and opportunities are recorded within an observation horizon of up to five years. Matters that have already been fully taken into account in planning or for which a provision has been recognized are not considered in connection with the risk management process. In addition, strategic risks and opportunities are also taken into account in the risk management process.

Risk and opportunity management is based on the principle of completeness.

This means that all identified risks and opportunities are incorporated into the risk management process via the operating units of the segments, the significant associated companies, joint ventures and joint operations as well as the corporate departments. The scope of consolidation for risk and opportunity management generally corresponds to the scope of the Consolidated Financial Statements.

**References:**

CDP Climate Change Questionnaire:  
C2.1 / C2.2  
Annual Report 2023 p. 142

**c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.**

In order to identify business risks and opportunities at an early stage and to assess and manage them actively, the Board of Management applies appropriate and effective management and control systems, which have been brought together in an overall risk and opportunity management system.

Sustainability-related risks and opportunities are an integral part of the Group-wide risk and opportunity management system.

The Group Risk Management Committee (GRMC) is responsible for ensuring the continuous improvement of the risk management system and the internal control system (including the compliance management system) and for assessing their appropriateness and effectiveness

with regard to the Group's risk situation and the scope of the business activities. It is chaired by the members of the Board of Management of Mercedes-Benz Group AG responsible for Finance & Controlling/ Mercedes-Benz Mobility and Integrity, Governance & Sustainability.

In addition, the GRMC was composed as of 31 December 2023 of representatives from Mercedes-Benz Group Finance, the Legal Affairs department, the Compliance unit, Corporate Security, Global Cyber & Information Security and the member responsible for finance of the Board of Management at Mercedes-Benz Mobility AG.

The Corporate Audit department contributes material findings on the internal control and risk management system.

The Board of Management, Audit Committee and Supervisory Board are informed regularly and as needed about potential significant control weaknesses,

the appropriateness and effectiveness of the implemented controls and the risk situation. The Audit Committee and the Supervisory Board of Mercedes-Benz Group AG and the Supervisory Boards of Mercedes-Benz AG and Mercedes-Benz Mobility AG are responsible for monitoring the internal control and risk management system, including its appropriateness and effectiveness.

#### References:

CDP Climate Change Questionnaire: C2.1 / C2.2  
Annual Report 2023 p. 140 f.  
Sustainability Report 2023 p. 18

## Metrics & Targets

**Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.**

**a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.**

### Share of electrified vehicles at Mercedes-Benz Cars

At Mercedes-Benz Cars, Group unit sales of electrified vehicles (xEV) increased globally by 21% in the reporting year in comparison to 2022. Overall, the proportion of electrified vehicles (xEV) at Mercedes-Benz Cars in the reporting year was 20% of Group unit sales worldwide. The share accounted for by fully electric vehicles (BEV) was 12% of Group unit sales worldwide.

Electrified vehicles Mercedes-Benz Cars	Unit sales		in % of unit sales (total)	
	2023	2022	2023	2022
<b>Worldwide</b>				
Electrified vehicles (xEV)	401,943	333,490	20%	16%
Plug-in hybrid electric vehicles (PHEV)	161,275	184,263	8%	9%
Battery-electric vehicles (BEV)	240,668	149,227	12%	7%
<b>MBC unit sales (total)<sup>1</sup></b>	<b>2,044,051</b>	<b>2,040,719</b>		
<b>Europe<sup>2</sup></b>				
Electrified vehicles (xEV)	254,038	236,678	39%	38%
Plug-in hybrid electric vehicles (PHEV)	134,230	142,022	20%	23%
Battery-electric vehicles (BEV)	119,808	94,656	18%	15%
<b>MBC unit sales (total)<sup>1</sup></b>	<b>658,604</b>	<b>618,904</b>		

1 Group sales Mercedes-Benz Cars (incl. smart). 2 European Union, United Kingdom, Switzerland and Norway.

**Share of electrified vehicles at Mercedes-Benz Vans**

At Mercedes-Benz Vans, Group unit sales of electrified vehicles increased by 51% worldwide in the reporting year in comparison to 2022. The share of electrified vehicles accounted for 5% of worldwide Group unit sales in the reporting year.

**Calculation of CO<sub>2</sub> emissions**

For the entire lifecycle of the Mercedes-Benz Cars fleet and the Mercedes-Benz Vans fleet worldwide, the average CO<sub>2</sub> value for Mercedes-Benz Cars for the year 2023 was 46.5 tonnes per vehicle, and for Mercedes-Benz Vans 60.8 tonnes per vehicle. 50.5 tonnes are accounted for by the use phase, which in the case of vans is dominated by commercial goods transport with vehicles in the 3.5 to 5 tonne segment.

**Development of CO<sub>2</sub> emissions in Europe**

In the reporting year, the average CO<sub>2</sub> emissions of the Mercedes-Benz new vehicle fleet in Europe (European Union, Norway and Iceland) applying the statutory regulations on the basis of internal data, amount to 111 g/ km (including vans registered as passenger cars), and were therefore at a lower level than in the previous year. Taking the vehicles of the joint venture smart Automobile Co., Ltd. into account in the Mercedes-Benz CO<sub>2</sub> pool, the average CO<sub>2</sub> emissions in Europe (European Union, Norway and Island) amounted to 109 g/km according to internal calculations. This means that the Mercedes-Benz Group fell significantly below the CO<sub>2</sub> targets in Europe in 2023.

The Mercedes-Benz Group expects the Mercedes-Benz fleet average in Europe (European Union, Norway and Iceland) to fall further in 2024.

This development has been especially favoured by the fact that all-electric and plug-in hybrid vehicles continue to increase their share of total car sales. Further information can be found in the forecast report.

In the reporting year, the average CO<sub>2</sub> emissions of light commercial vehicles in vehicle class N1 in Europe (European Union, Norway and Iceland) amount to 204 g/km, applying the statutory regulations on the basis of internal data. Mercedes-Benz will therefore fall below the CO<sub>2</sub> target. For 2024, the Mercedes-Benz Group expects a further reduction in CO<sub>2</sub> emissions owing to the increasing sales of all-electric vehicles.

Electrified vehicles Mercedes-Benz Vans	Unit sales		in % of unit sales (total)	
	2023	2022	2023	2022
<b>Worldwide</b>				
Electrified vehicles (xEV)	22,666	15,003	5%	4%
<b>MBV unit sales (total)<sup>1</sup></b>	<b>447,790</b>	<b>415,344</b>		
<b>Europe<sup>2</sup></b>				
Electrified vehicles (xEV)	22,280	14,847	8%	6%
<b>MBV unit sales (total)<sup>1</sup></b>	<b>279,408</b>	<b>259,436</b>		

1 Group sales Mercedes-Benz Vans. 2 European Union, United Kingdom, Switzerland and Norway.



**Development of the average CO<sub>2</sub> emissions of the Mercedes-Benz passenger car fleet in Europe (in g/km)**

	2023 <sup>6</sup>	2022 <sup>6</sup>	2021 <sup>6</sup>	2020	2015	2010	2005	2000
CO <sub>2</sub> emissions	<b>109<sup>1,2,5</sup></b>	115 <sup>1,5</sup>	114 <sup>3,5</sup>	104 <sup>6</sup>	123 <sup>4,6</sup>	158 <sup>6</sup>	178 <sup>6</sup>	204 <sup>6</sup>

- 1 Internal value.
- 2 Incl. vehicles of the joint venture smart Automobile Co., Ltd.
- 3 Subsequent adjustment based on final EU data.
- 4 Till 2015 excluding vans registered as M1 vehicles.
- 5 Calculation as per WLTP (excl. UK).
- 6 Calculation as per NEDC (incl. UK).

**Development of the CO<sub>2</sub> emissions of the Mercedes-Benz van fleet in Europe on average (in g/km)**

	2023	2022	2021	2020	2015	2013
CO <sub>2</sub> emissions	<b>204<sup>1,2</sup></b>	209 <sup>1,2</sup>	216 <sup>2,3</sup>	184 <sup>4</sup>	193 <sup>4</sup>	206 <sup>4</sup>

- 1 Internal value.
- 2 Calculation as per WLTP (excl. UK).
- 3 Subsequent adjustment based on final EU data.
- 4 Calculation as per NEDC (incl. UK).

**Development of CO<sub>2</sub> emissions in the USA**

In the USA, two separate standards regulate disclosures at federal level to limit greenhouse gases and consumption: the Greenhouse Gas (GHG) Protocol and the Corporate Average Fuel Economy Standards (CAFE).

Based on model year 2023, the GHG fleet value is 170 g of CO<sub>2</sub>/mile for the passenger car fleet and 259 g of CO<sub>2</sub>/mile for the light duty truck (LDT) fleet (vans and SUVs - based on latest forecast). Despite an increase in the fleet share of electrified vehicles (xEV) in the USA, the Mercedes-Benz Group came in below its average fleet targets of 179 g

CO<sub>2</sub>/mile for the passenger car fleet. The target value of 233 g CO<sub>2</sub>/mile for the light duty truck (LDT) fleet (vans and SUVs) could not be reached. However, the Mercedes-Benz Group was able to close the remaining gap by acquiring external credits.

The Mercedes-Benz Sprinter models are subject to GHG regulation for classes 2b and 3 with a gross vehicle weight of between 3.86 tonnes and 6.35 tonnes. The CO<sub>2</sub> targets in these classes depend on the payload, towing capacity and drive type of the vehicles. In the reporting year, CO<sub>2</sub> emissions from

medium duty vehicles (MDV) totalled 436 g CO<sub>2</sub>/mile, the target value of 476 g CO<sub>2</sub>/mile was therefore bettered. The Group expects to remain below the CO<sub>2</sub> targets in the coming years.

**Development of CO<sub>2</sub> emissions in China**

In China, domestic and imported cars are reported separately and according to fleet consumption values, unlike in Europe and the United States. For Mercedes-Benz China (MBCL)<sup>1</sup>, which does not produce any vehicles in China itself, the value of the import fleet is relevant. The target was 6.95 l/100 km;

**Mercedes-Benz GHG figures for passenger cars, light-duty trucks and medium-duty vehicles USA (in g CO<sub>2</sub>/mi)**

	2023	2022	2021	2020	2019
Passenger cars	<b>170<sup>1</sup></b>	241 <sup>2</sup>	254	260	263
Light-duty trucks	<b>259<sup>1</sup></b>	296 <sup>2</sup>	300	301	310
Medium-duty trucks	<b>436<sup>1</sup></b>	471	525	483	485

- 1 Internal value.
- 2 Subsequent adjustment based on final USA data.

1 Mercedes-Benz China Ltd. (MBCL) is a joint venture between Mercedes-Benz and Lei Shing Hong, which is the importer and general sales company for imported finished vehicles in China.

the figure that was actually achieved was 8.46 l/100 km taking into account off-cycle technologies (8.52 l/100 km not taking into account off-cycle technologies). MBCL plans to acquire external credits to cover short-term consumption gaps in the achievement of fleet targets. With the expansion of its portfolio of fully electric vehicles and plug-in hybrids, the Mercedes-Benz Group intends to achieve its emissions targets in China with its joint venture Beijing Benz Automotive (BBAC), which is responsible for local production.

Legal limits on the fuel consumption and/or CO<sub>2</sub> emissions of car fleets and light commercial vehicles also exist in many other markets, although the target values differ from market to market. This affects major sales markets for Mercedes-Benz products such as China, Switzerland, Canada, Japan, South Korea, Brazil, India and Saudi Arabia. The Mercedes-Benz Group also takes these target values into account in the further development of its portfolio.

**Mercedes-Benz fleet consumption passenger cars in China (in l/100 km)**

	2023	2022	2021	2020	2020	2018
Fleet consumption	8.46 <sup>1,2,3</sup>	8.17 <sup>2,3</sup>	8.08 <sup>2,3</sup>	7.77 <sup>2,4</sup>	8.07 <sup>4</sup>	7.65 <sup>4</sup>

1 Internal value.  
 2 Value with off-cycle technologies.  
 3 Fuel consumption measured according to WLTP.  
 4 Fuel consumption measured according to NEDC.

**Reporting on the Taxonomy-aligned proportions of environmentally sustainable economic activities**

The sections in the Annual Report 2023 present information on the proportion of revenue, capital expenditure and operating expenditure accounted for by environmentally sustainable economic activities at the Mercedes-Benz Group.

The individual figures for revenue, capital expenditure and operating expenditure are precisely allocated to a specific economic activity and environmental objective.

Annual Report 2023 (EU Taxonomy)

**References:**

CDP Climate Change Questionnaire: C4.2 / C4.2a / C4.2b / C9.1  
 Annual Report 2023 p. 114 ff.  
 Sustainability Report 2023 p. 74 f., 81 ff.

**b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.**

The Mercedes-Benz Group calculates and documents its CO<sub>2</sub> emissions in accordance with the Corporate Accounting and Reporting Standard 2004 of the Greenhouse Gas (GHG) Protocol initiative according to the categories Scope 1 to Scope 3. Scope 1 and Scope 2 emissions are reported in accordance with the Operational Control Approach of the GHG Protocol.

All direct CO<sub>2</sub> emissions from the company’s own emission sources (Scope 1), indirect emissions from the generation of purchased electricity, district heating and purchased grey hydrogen (Scope 2) as well as emissions from the use of Mercedes-Benz Group products, the supply chain, transport logistics and Dismantling and treatment process (Scope 3) are documented.

CO<sub>2</sub> emissions Scope 1, Scope 2 and selected Scope 3 categories worldwide for Mercedes-Benz Cars

Activities (Scope 3 category as per GHG Protocol)	2023 <sup>1,10</sup>		2022 <sup>10</sup>		2021 <sup>10</sup>	
	specific CO <sub>2</sub> in t/car	absolute CO <sub>2</sub> in million t	specific CO <sub>2</sub> in t/car	absolute CO <sub>2</sub> in million t	specific CO <sub>2</sub> in t/car	absolute CO <sub>2</sub> in million t
Purchased goods (3.1) <sup>2</sup>	9.0	18.0	8.7	17.7	8.4	17.0
Logistics <sup>3</sup>	1.0	2.0	1.1	2.2	1.1	2.2
Upstream logistics (3.4)	0.35	0.7	-	-	-	-
Downstream logistics (3.9)	0.65	1.3	-	-	-	-
Waste (3.5) <sup>4</sup>	0.1	0.2	-	-	-	-
Business travel (3.6) <sup>5</sup>	0.03	0.07	0.028	0.057	0.009	0.019
Employee traffic (3.7) <sup>6</sup>	0.05	0.11	0.052	0.107	0.053	0.107
Use phase of our products – well-to-tank (3.11) <sup>7</sup>	6.6	13.1	6.6	13.6	6.3	12.7
Use phase of our products – tank-to-wheel (3.11) <sup>8</sup>	29.1	58.2	30.7	62.7	32.2	65.5
Dismantling and treatment process (3.12) <sup>9</sup>	0.4	0.8	0.4	0.8	0.4	0.8
<b>Scope 1, 2</b>						
Manufacture	0.3	0.4	0.3	0.4	0.7	0.7
<b>Total</b>	<b>46.5</b>	<b>93.0</b>	<b>47.9</b>	<b>97.8</b>	<b>49.1</b>	<b>99.2</b>

1 The key figures were subjected to an audit in order to achieve "limited assurance". The Scope 3 categories listed in the table were audited as per the GHG Protocol. The categories capital goods (3.2), rented or leased assets (3.8), let or leased-out assets (3.13), franchise business (3.14) and investments (3.15) are not reported due to insufficient data availability. The categories fuel-related and energy-related activities (3.3) and processing of sold products (3.10) are included in part in category 3.1, but cannot be shown separately due to the accounting method based on product lifecycle assessments. Figures are rounded.

2 The CO<sub>2</sub> emissions of the purchased goods pertain to the emissions of the upstream chain of all passenger cars sold (retail) in the reporting year. They are calculated by means of internal lifecycle assessments audited as per ISO 14040/44 and scaled by vehicle weights. The basis of the data is the respective lifecycle assessment database used in the 360° Environmental Checks: Mercedes-Benz models with 360° Environmental Check. | Mercedes-Benz Group > Responsibility > Sustainability > Climate & Environment > Environmental Check).

3 Standard and approach for accounting of the Scope 3 emissions for the upstream and downstream logistics are prescribed by the GHG Protocol. The calculation of the CO<sub>2</sub> emissions of transport services uses the distance-based method and is in consideration of the standards GLEC Framework V2.0, DIN EN 16258 and CleanCargo. Forecast figures.

4 The CO<sub>2</sub> emissions from the disposal and recycling of the Group-wide quantities of waste are calculated by means of generic emission factors for the different kinds of waste treatment. The resulting scrap for recycling is excluded and taken into account in category 3.1.

5 The determination of the Scope 3 emissions for the category business travel is based on booking data received by the Global Travel Management (BCD) of Mercedes-Benz Cars in the reporting year. The kilometres travelled are multiplied by the relevant emission factors for each means of transport. The emission factors for rental cars are based on data from rental car companies, for air travel on the GHG Protocol 2015 depending on length of flight and class, and for train travel on the country-specific worst-case emission factors of the respective railway companies.

6 The Scope 3 emissions for the category employee traffic are calculated based on the number of employees, the average attendance and the emission contribution of the modes of transport used. The following breakdown of the modes of transport was assumed for the European sites: 70% car, 12% public transport and 18% other modes of transport; the breakdown for non-European sites: 90% car, 5% public transport and 5% other.

7 The shown well-to-tank emissions are based on the electricity/fuel production paths of the respective markets. The absolute CO<sub>2</sub> contribution of the charging electricity amounts of all vehicles is determined by means of CO<sub>2</sub> emission factors for the market-specific power generation. The contribution of Green Charging to CO<sub>2</sub> reduction by the new vehicle fleet of Mercedes-Benz Cars is determined using a combination of different market-specific approaches. The contribution of Green Charging to CO<sub>2</sub> reduction in 2023 is 0.12 t CO<sub>2</sub>/vehicle.

8 The calculation of CO<sub>2</sub> emissions is based on the weighted average of CO<sub>2</sub> fleet values, taking into account the currently applicable driving cycles in the respective markets, and includes all vehicles with an assumed mileage of 200,000 km.

9 The end-of-life model incorporated into the lifecycle assessment of a car comprises the dismantling, the shredding process and the downstream treatment of the shredder light fraction. The CO<sub>2</sub> emissions from the power consumption of the shredder and the recycling of the shredder light fraction are taken into account in the Scope 3 category disposal of sold products. No credit notes are issued (cut-off approach) for the created material fractions (e.g. steel, aluminium).

10 Absolute Scope 3 emissions pertain to retail sales (2021: 2,032,663; 2022: 2,041,705; 2023: 2,002,734). Absolute Scope 1 and 2 emissions pertain to vehicles produced at fully consolidated sites, excl. other makes (2021: 1,132,213; 2022: 1,261,106; 2023: 1,306,966; unverified)

CO<sub>2</sub> emissions Scope 1, Scope 2 and selected Scope 3 categories worldwide for Mercedes-Benz Vans

Activities (Scope 3 category as per GHG Protocol)	2023 <sup>1,10</sup>		2022 <sup>10</sup>		2021 <sup>10</sup>	
	specific CO <sub>2</sub> in t/van	absolute CO <sub>2</sub> in million t	specific CO <sub>2</sub> in t/van	absolute CO <sub>2</sub> in million t	specific CO <sub>2</sub> in t/van	absolute CO <sub>2</sub> in million t
Purchased goods (3.1) <sup>2</sup>	8.5	3.8	8.7	3.6	8.6	3.4
Logistics <sup>3</sup>	0.88	0.39	0.9	0.4	0.9	0.4
Upstream logistics (3.4)	0.49	0.22	-	-	-	-
Downstream logistics (3.9)	0.38	0.17	-	-	-	-
Waste (3.5) <sup>4</sup>	0.07	0.03	-	-	-	-
Business travel (3.6) <sup>5</sup>	0.008	0.004	0.008	0.003	0.007	0.003
Employee traffic (3.7) <sup>6</sup>	0.036	0.016	0.038	0.016	0.039	0.015
Use phase of our products – well-to-tank (3.11) <sup>7</sup>	4.6	2.1	4.7	2.0	4.9	1.9
Use phase of our products – tank-to-wheel (3.11) <sup>8</sup>	45.9	20.5	47.5	19.7	47.8	18.9
Dismantling and treatment process (3.12) <sup>9</sup>	0.5	0.2	0.5	0.2	0.5	0.2
<b>Scope 1, 2</b>						
Manufacture	0.3	0.1	0.3	0.1	0.5	0.2
<b>Total</b>	<b>60.8</b>	<b>27.2</b>	<b>62.7</b>	<b>26.0</b>	<b>63.3</b>	<b>25.0</b>

1 The key figures were subjected to an audit in order to achieve "limited assurance". The Scope 3 categories listed in the table were audited as per the GHG Protocol. The categories capital goods (3.2), rented or leased assets (3.8), let or leased-out assets (3.13), franchise business (3.14) and investments (3.15) are not reported due to insufficient data availability. The categories fuel-related and energy-related activities (3.3) and processing of sold products (3.10) are included in part in category 3.1, but cannot be shown separately due to the accounting method based on product lifecycle assessments. Figures are rounded.

2 The CO<sub>2</sub> emissions of the purchased goods pertain to the emissions of the upstream chain of all vans sold (retail) in the reporting year. They are calculated by means of internal lifecycle assessments and scaled by vehicle weight.

3 Standard and approach for accounting of the Scope 3 emissions for the upstream and downstream logistics are prescribed by the GHG Protocol. The calculation of the CO<sub>2</sub> emissions of transport services uses the distance-based method and is in consideration of the standards GLEC Framework V2.0, DIN EN 16258 and CleanCargo. Forecast figures.

4 The CO<sub>2</sub> emissions from the disposal and recycling of the Group-wide quantities of waste are calculated by means of generic emission factors for the different kinds of waste treatment. The resulting scrap for recycling is excluded and taken into account in category 3.1.

5 The determination of the Scope 3 emissions for the category business travel is based on booking data received by the Global Travel Management (BCD) of Mercedes-Benz Cars in the reporting year. The kilometres travelled are multiplied by the relevant emission factors for each means of transport. The emission factors for rental cars are based on data from rental car companies, for air travel on the GHG Protocol 2015 depending on length of flight and class, and for train travel on the country-specific worst-case emission factors of the respective railway companies.

6 The Scope 3 emissions for the category employee traffic are calculated based on the number of employees, the average attendance and the emission contribution of the modes of transport used. The following breakdown of the modes of transport was assumed for the European sites: 70% car, 12% public transport and 18% other modes of transport; the breakdown for non-European sites: 90% car, 5% public transport and 5% other.

7 The shown #E well-to-tank emissions are based on the electricity/fuel production paths of the respective markets. The absolute CO<sub>2</sub> contribution of the charging electricity amounts of all vehicles is determined by means of CO<sub>2</sub> emission factors for the market-specific power generation. The contribution of Green Charging to CO<sub>2</sub> reduction by the new vehicle fleet of Mercedes-Benz Vans is determined using a combination of different market-specific approaches. The contribution of Green Charging to CO<sub>2</sub> reduction in 2023 is 0.03 t CO<sub>2</sub>/vehicle.

8 The calculation of CO<sub>2</sub> emissions is based on the weighted average of CO<sub>2</sub> fleet values, taking into account the currently applicable driving cycles in the respective markets, and includes all vehicles with an assumed mileage of 200,000 km.

9 The end-of-life model incorporated into the lifecycle assessment of a car comprises the dismantling, the shredding process and the downstream treatment of the shredder light fraction. The CO<sub>2</sub> emissions from the power consumption of the shredder and the recycling of the shredder light fraction are taken into account in the Scope 3 category disposal of sold products. No credit notes are issued (cut-off approach) for the created material fractions (e.g. steel, aluminium).

10 Absolute Scope 3 emissions pertain to retail sales (2021: 394,978; 2022: 415,335; 2023: 447,793). Absolute Scope 1 and 2 emissions pertain to vehicles produced at fully consolidated sites, excl. other makes (2021: 336,847; 2022: 360,874; 2023: 397,996; unverified)

The Mercedes-Benz Group therefore also takes into account the upstream and downstream emissions of its activities. In addition to the greenhouse gas CO<sub>2</sub>, it takes other greenhouse gases into account under Scope 1 and 2 in its balances. These greenhouse gas emissions are summarised in CO<sub>2</sub> equivalents alongside the main greenhouse gas CO<sub>2</sub>. In addition to fossil CO<sub>2</sub> emissions, the Group is also reporting biogenic CO<sub>2</sub> emissions from the use of renewable energies (biomass, biogas, etc.) separately for the first time, under Scope 1 and 2 in its balances for this reporting year.

### Reduction of production-related CO<sub>2</sub> emissions

In the reporting year, Mercedes-Benz Cars and Mercedes-Benz Vans were able to reduce CO<sub>2</sub> emissions in production (Scope 1 and Scope 2) from 539 kilo tonnes in 2022 to 511 kilo tonnes through various measures. This corresponds to a reduction of 5%.

### CO<sub>2</sub> emissions from energy consumption (in 1,000 t)

	2023 <sup>3</sup>	2022	2021 <sup>2</sup>
Scope 1: direct CO <sub>2</sub> emissions	538	569	681
- Fuels	85		
- Heating oil	20		
- Liquefied petroleum gas	8		
- Natural gas	424		
Scope 2: indirect CO <sub>2</sub> emissions – market-based	83	94	466
- Hydrogen	5		
- District heating	78		
- Electricity	0		
Scope 2: indirect CO <sub>2</sub> emissions – location-based	933	1,121	1,123
<b>Total – market-based<sup>1</sup></b>	<b>621</b>	<b>663</b>	<b>1,148</b>
Thereof total in production	511	539	947
<b>Total – location-based<sup>1</sup></b>	<b>1,471</b>	<b>1,690</b>	<b>1,805</b>
Thereof total in production	1,278	1,445	1,542
Further information on greenhouse gas accounting			
Biogenic emissions – Scope 1	5		
Biogenic emissions – Scope 2	2		
Other greenhouse gases (unit: CO <sub>2</sub> e) <sup>4</sup>	5		
CO <sub>2</sub> compensation for unavoidable emissions	626		

1 The market-based and the location-based methods have been implemented as per GHG Protocol Scope 2 Guidance since 2016. The market-based approach has been the standard accounting method ever since.

2 Due to the spin-off and demerger of the Daimler commercial vehicle business as an independent company, the data has been adjusted, but still contains some minor uncertainties because so-called hybrid locations and divisions can only be adjusted for accounting purposes starting with the 2022 business year.

3 The key figures were audited in order to obtain "limited assurance".

4 Significant non-CO<sub>2</sub> greenhouse gases such as CH<sub>4</sub>, N<sub>2</sub>O and refrigerants (scope 1).

This can also be seen in the decline in specific CO<sub>2</sub> emissions per vehicle.

**References:**

CDP Climate Change Questionnaire: C6.1 / C6.3 / C6.5 / C6.5a

Sustainability Report 2023 p. 80 ff., 94 f.

**Specific CO<sub>2</sub> emissions in production (in kg/vehicle)<sup>1</sup>**

	2023	2022	2021	2020	2019	2018
<b>Cars</b>						
CO <sub>2</sub> direct (Scope 1)	228	258	349	326	279	267
CO <sub>2</sub> indirect (Scope 2) - market based <sup>2</sup>	51	57	306	426	431	562
<b>Total - Scope 1 &amp; 2</b>	<b>279</b>	<b>316</b>	<b>655</b>	<b>752</b>	<b>711</b>	<b>829</b>
<b>Vans</b>						
CO <sub>2</sub> direct (Scope 1)	250	269	353	333	346	355
CO <sub>2</sub> indirect (Scope 2) - market based <sup>2</sup>	9	9	141	147	160	196
<b>Total - Scope 1 &amp; 2</b>	<b>259</b>	<b>279</b>	<b>493</b>	<b>479</b>	<b>506</b>	<b>551</b>

<sup>1</sup> Excl. CO<sub>2</sub> from fuels.

<sup>2</sup> The market-based and the location-based methods have been implemented as per GHG Protocol Scope 2 Guidance since 2016. The market-based approach has been the standard accounting method ever since.

**c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.**

The Mercedes-Benz Group sets itself ambitious targets for CO<sub>2</sub> reduction in the individual phases, and systematically analyses the resulting CO<sub>2</sub> emissions and other environmental impacts along its entire value chain.

The Group’s goal is to reduce CO<sub>2</sub> emissions per car across the entire value chain up to 50% by the end of this decade, compared to 2020. The goal of reducing the CO<sub>2</sub> emissions of the Mercedes-Benz new vehicle fleet during the use phase (well-to-wheel) by more than 40% compared to 2018 has been confirmed by the Science Based Targets initiative (SBTi).

**Net carbon-neutrality in production**

The aim of the Mercedes-Benz Group is to achieve net carbon-neutral production in its own production plants by 2039.

Targets	Target horizon	Status as of 2023
<b>Climate protection</b>		
A fleet of new Mercedes-Benz vehicles that is net carbon-neutral along all stages of the value chain	2039	According to plan
<b>Climate protection for vehicles</b>		
Reduction of the CO <sub>2</sub> emissions per car in the new vehicle fleet up to 50% along all stages of the value chain <sup>1,2</sup>	By the end of the decade	According to plan
Increase the proportion of electrified <sup>3</sup> vehicles in the fleet of new vehicles at Mercedes-Benz Cars to as high as 50% <sup>1</sup>	In the second half of the decade	20%
Electrify all new vehicle architectures <sup>1,3</sup>	In the second half of the decade	According to plan
Offer an electrified <sup>3</sup> variant for every model from Mercedes-Benz Cars <sup>1</sup>	In the second half of the decade	According to plan
Offer an electrified <sup>4</sup> alternative for every model from Mercedes-Benz Vans	2025	Target achieved
Increase the proportion of electrified <sup>4</sup> vehicles in the fleet of new vehicles at Mercedes-Benz Vans to more than 50% <sup>1</sup>	By the end of the decade	5%
<b>Climate protection in the supply chain</b>		
All production materials procured by Mercedes-Benz Cars and Mercedes-Benz Vans are net carbon-neutral	2039	84% of suppliers <sup>5</sup>
<b>Climate protection in production<sup>6</sup></b>		
Reduction of CO <sub>2</sub> emissions (Scope 1 <sup>7</sup> and 2 <sup>8</sup> ) by 80% <sup>9</sup>	2030	According to plan
Increase the share of energy from renewable sources to cover 100% of energy consumption	2039	According to plan
Milestone: increase the share of energy from renewable sources to cover energy consumption Cars: 70% Vans: 80%	2030	According to plan

1 The pace of transformation is determined by market conditions and customers.

2 Compared to 2020 (value chain stages: procured goods, production, logistics, fuel and energy generation, driving operation, disassembly and treatment processes).

3 Plugin hybrids and all-electric vehicles.

4 All-electric vehicles.

5 Measured on the basis of the annual procurement volume that, in turn, is based on target figures updated monthly; guaranteed by means of signatures.

6 In addition to the production sites of the consolidated subsidiaries, the production sites of the following non-consolidated subsidiaries are included: Transmission srl (Cugir, Romania), STARKOM, proizvodnja in trgovina d.o.o. (Maribor, Slovenia) and STARCAM s.r.o. (Most, Czech Republic).

7 Scope 1 emissions are direct CO<sub>2</sub> emissions from sources for which the company is directly responsible or that it directly controls.

8 Scope 2 emissions are indirect CO<sub>2</sub> emissions from purchased energy such as electricity and district heating that are generated externally but consumed by the company.

9 Compared to 2018.

This is to be achieved by covering energy consumption with 100% renewable energies.

By 2030, the Mercedes-Benz Group plans to reduce CO<sub>2</sub> emissions in the production plants (Scope 1 and Scope 2) by 80% compared to 2018. The target set and confirmed by the SBTi to reduce the CO<sub>2</sub> emissions in Mercedes-Benz's own production plants (Scope 1<sup>1</sup> and 2<sup>2</sup>) by 50% by 2030 in comparison to 2018<sup>3</sup> figures was already achieved back in 2022, and is also being pursued beyond the production locations for the central functions under consideration.

All production plants operated by the Mercedes-Benz Group have been net carbon-neutral in terms of Scope 1 and Scope 2 since 2022. Since 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) from these plants that have so far proved unavoidable have been compensated by carbon offsets from qualified climate protection projects.

The Group has set itself the target of covering more than 70% (cars) or 80% (vans) of its energy requirements in production with renewable energies by 2030. The procurement of green electricity plays a key role in these efforts. All of the Mercedes-Benz Group's own production plants worldwide obtain 100% of their external electricity from renewable energy sources.

#### CO<sub>2</sub>-reduced production materials

Mercedes-Benz Cars and Mercedes-Benz Vans are setting selected priorities for production materials on the road to net carbon-neutrality. To this end, quantitative interim targets for CO<sub>2</sub> emissions in the supply chains have been defined – these were derived from the results of the supplier discussions and determined with the support of external experts. Mercedes-Benz Cars and Mercedes-Benz Vans have placed the focus on materials and components that have high CO<sub>2</sub> emissions in

production. These include steel, aluminium, certain plastics and battery cells. Finally, they have integrated the target values into their criteria for award processes – and apply CO<sub>2</sub> and recycle targets as key criteria when awarding contracts for the Mercedes-Benz Modular Architecture (MMA) “Electric first” vehicle platform and the Mercedes-Benz Electric Architecture (MB.EA) and Mercedes-Benz Vans Electric Architecture (VAN.EA) platforms.

#### More sustainable sales operations

By 2030, all sales partners worldwide are to achieve the goal of net carbon-neutral operation. This includes switching to electricity from renewable energies, the energy-efficient renovation of existing buildings and the construction of highly energy-efficient new buildings.

#### CO<sub>2</sub> and xEV targets in remuneration

In addition to financial targets, the variable remuneration for members of the Board of Management and Level 1–3

executives, as well as for certain Level 4 managers, contains short-term transformation targets relating to CO<sub>2</sub> emissions, safety innovations and ESG stakeholder management.

In 2023, the variable components also included long-term sustainability targets relating to the share of unit sales accounted for by plug-in hybrid electric vehicles (PHEVs) and all-electric vehicles (BEVs), the inspection of high-risk production materials and measures for ensuring diversity and inclusion. The variable remuneration components also continue to include non-financial targets relating to customers, employees and integrity. (Further information <https://group.mercedes-benz.com/remuneration-bom/>)

#### References:

CDP Climate Change Questionnaire: C4.1 / C4.1a / C4.1b / C4.2 / C4.2a / C4.2b Annual Report 2023 p. 78, 83 ff. Sustainability Report 2023 p. 69 f., 90, 92, 96

<sup>1</sup> Scope 1 emissions are direct CO<sub>2</sub> emissions from sources for which the company is directly responsible or that it directly controls. <sup>2</sup> Scope 2 emissions are indirect CO<sub>2</sub> emissions from purchased energy such as electricity and district heating that are generated externally but consumed by the company. <sup>3</sup> In 2018 the Scope 1 emissions amounted to 650,000 tonnes of CO<sub>2</sub>, while the Scope 2 emissions totalled 1,040,000 tonnes of CO<sub>2</sub>.



# Disclaimer

This document contains forward-looking statements that reflect our current views about future events. The words “anticipate”, “assume”, “believe”, “estimate”, “expect”, “intend”, “may”, “can”, “could”, “plan”, “project”, “should” and similar expressions are used to identify forward-looking statements. These statements are subject to many risks and uncertainties, including an adverse development of global economic conditions, in particular a negative change in market conditions in our most important markets; a deterioration of our refinancing possibilities on the credit and financial markets; events of force majeure including natural disasters, pandemics, acts of terrorism, political unrest, armed conflicts, industrial accidents and their effects on our sales, purchasing, production or financial services activities; changes in currency exchange rates, customs and foreign trade provisions; changes in laws, regulations and government policies (or changes in their interpretation), particularly those relating to vehicle emissions, fuel economy and safety or to ESG reporting (environmental, social or governance topics); price increases for fuel, raw materials or energy; disruption of production due to shortages of materials or energy, labour strikes or supplier insolvencies; a shift in consumer preferences towards smaller, lower-margin vehicles; a limited demand for all-electric vehicles; a possible lack of acceptance of our products or services which limits our ability to achieve prices and adequately utilize our production capacities; a decline in resale prices of used vehicles; the effective implementation of cost-reduction and efficiency-optimization measures; the business outlook for companies in which we hold a significant equity interest; the successful implementation of strategic cooperations and joint ventures; the resolution of pending governmental investigations or of investigations requested by governments and the outcome of pending or threatened future legal proceedings; and other risks and uncertainties, some of which are described under the heading “Risk and Opportunity Report” in this Annual Report. If any of these risks and uncertainties materializes or if the assumptions underlying any of our forward-looking statements prove to be incorrect, the actual results may be materially different from those we express or imply by such statements. We do not intend or assume any obligation to update these forward-looking statements since they are based solely on the circumstances at the date of publication.