

# Sustainability Report 2022



Mercedes-Benz Group



## FOREWORD

## GOVERNANCE

- 6 Stakeholder Perspectives
- 12 Sustainable corporate governance
- 42 Integrity and compliance
- 60 Data responsibility
- 69 Partnerships

## ENVIRONMENT

- 82 Stakeholder Perspectives
- 90 Climate protection
- 117 Air quality
- 125 Resource conservation

## SOCIAL

- 145 Stakeholder Perspectives
- 152 People
- 188 Sustainable urban mobility
- 195 Traffic Safety
- 209 Human rights
- 227 Social commitment

## FACTS & FIGURES

- 237 Report profile
- 243 Calculation and documentation of CO<sub>2</sub> emissions
- 245 KPMG auditor's report
- 248 GRI Index
- 249 Glossary
- 257 Imprint

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# Foreword

## Dear Reader,

According to current forecasts, the global passenger car market is expected to exceed 91 million vehicles in 2030 – around 25 percent more than in 2022. Our task at Mercedes-Benz is to meet this growing need for individual mobility in a sustainable way. To achieve this, we have defined a clear path on which we have reached important milestones along our value chains in recent months.



**“** Many things are expected from Mercedes-Benz – inside and outside our factory gates. We want to live up to these expectations in a sustainable way. This includes the ambition of making our fleet of new passenger cars net carbon-neutral by 2039. By 2030, we plan to be around halfway there. To make faster progress on climate protection, we need maximum commitment and even stronger cooperation between politics, industry and society.

The core of our business continues to be convincing products: we now offer at least one fully electric model in every segment we serve – from the compact EQA to the spacious EQS SUV. And that is well-received: in 2022, more than twice as many customers opted for a vehicle from our electric brand Mercedes-EQ than in the previous year.

With our concept car Vision EQXX, we underlined our claim to be the innovation leader in e-mobility: On its record-breaking drive from Stuttgart to Silverstone, it covered over 1,200 kilometres on a single battery charge with an average consumption of just 8.3 kWh/100 km.

In order to attract even more people to electric cars in the long term, we also need a well-developed charging infrastructure. Via Mercedes me Charge, our customers already have access to around one million charging

points worldwide. In addition, we will build up our own high-power charging network in North America, Europe, China and other key markets.

In order to conserve valuable resources, one of our major goals is the circular economy. In this regard, the battery is an important factor for electric vehicles. That is why we are building our own battery recycling factory in Kuppenheim, where we will achieve a recycling rate of over 96 percent thanks to innovative technology.

In addition to sustainable products, we are increasingly focused on sustainable production. Since 2022, our own production sites are CO<sub>2</sub>-neutral on the balance sheet. By 2030, we want to cover more than 70 percent of the energy demand in production with renewable energies – especially by expanding solar and wind energy at our sites and concluding further corresponding power purchase agreements.



**“** Compelling products continue to be the core of our business: We now offer at least one fully electric model in every segment in which we compete – from the compact EQA to the spacious EQS SUV. In order to conserve valuable resources in the process, one of our major goals is the circular economy. That is why already during the development of our vehicles we use a “design for circularity” approach. For example, we already consider the recycling of our batteries during their development.

It's not only the demand for green energy that is increasing, it's also the demand for responsibly sourced raw materials. This is why we work with the Canadian government, for example. Through direct contact with raw material producers, we want to open up new sources for important materials. This gives us greater influence on sustainable supply chains and the observance of human rights all the way to the mines. With our „Raw Materials Report“ we create more

public transparency. Additionally, tools like the “Human Rights Respect System” and our “Responsible Sourcing Standards” help us a lot, which is why we encourage our direct suppliers to comply with them. And with our governance and compliance structures, we ensure a responsible approach to future technologies – be it big data, automated driving or artificial intelligence.



**“** At Mercedes-Benz, we have been conceiving sustainability holistically for many years. Environmental protection, social aspects and good corporate governance must go hand in hand. That is why on the path to the all-electric future we want clean supply chains and respect for human rights, from the raw materials mines all the way to our customers. The right governance helps us in this regard, for example, in the form of our “Human Rights Respect System”.

New technologies and business models also require new skills. As an employer, we are responsible for more than 170,000 colleagues from 145 nations. That is why in Germany alone, we will invest more than € 1.3 billion in the qualification, training and further education of our employees by 2030. We are also strengthening traditional locations such as Stuttgart-Untertürkheim or Berlin-Marienfelde by developing them into centres of excellence for future technologies.

Beyond the boundaries of our company, education is also a concern for us: we make donations to fund a global fellowship programme that will provide knowledge, coaching and scholarships to thousands of young people from around the world – in order to implement innovative projects in the areas of environmental sustainability and decarbonisation. To raise the seed money for the programme, we auctioned the world’s most valuable automobile – a Mercedes-Benz 300 SLR Uhlenhaut Coupé – for the record price of € 135 million.

There are many expectations towards Mercedes-Benz: Our customers expect first-class products. Our colleagues expect future-proof jobs. Our shareholders expect an appropriate return on their investment. And society expects our commitment – inside and outside the factory gates. All these claims are legitimate. The best way to deliver on them is to make our company economically successful and sustainable in the long term.

At Mercedes-Benz, we are firmly committed to this. We have set the course with our sustainable business strategy. On the following pages, you’ll read about the progress we made in 2022. We wish you an interesting read and look forward to a constructive dialogue with you.

Yours  
Ola Källenius

Markus Schäfer

Renata Jungo Brüngger

# GOVERNANCE

# “ESG risks on the radar”

The handling of ESG risks is increasingly coming into focus for many companies. This trend is accelerated by the growing due diligence obligations for companies. What does this mean for an international Group with complex supply chains? In this interview, Thilo Mangold, Head of the Group Risk and Opportunity Management, talks about new perspectives and what they have to do with a speak up culture.



**Thilo Mangold**  
Mercedes-Benz AG

## **Mr Mangold, in order to manage risks, one must first identify them. What social risks does Mercedes-Benz deal with?**

There are a number of them. First of all, a social risk describes the danger that events, developments, or actions hinder us from achieving our goals. To prevent this, we systematically address labour and human rights risks, for example. We do this not only in all the countries we operate in, but also in all areas of our value chain, from research and development, procurement, production, to sales and our financial services. Some risks arise from the fact that we, as an international corporation, are subject to various, sometimes heterogeneous regulatory requirements. Others are directly related to our sustainable business strategy. Through forward-looking risk management, we ensure the long-term performance and innovative strength of the Group. It is crucial to take countermeasures for the identified risks as early as possible. To sum up: The traditional risk map has changed. It has become much

denser due to the increasing integration of ESG issues and an increasingly complex environment with numerous stakeholders. But that is only one side of the coin...

## **What is the other side?**

Where there are risks, there are also opportunities for the Group. In risk and opportunity management, we aim to identify and analyse these opportunities, where we can position ourselves as a ‘first mover’ to make a positive difference for our customers, employees, investors or other stakeholders in the future. Through risk and opportunity management, we have the ability to identify changes in the Group’s environment at an early stage, such as those affecting human rights, diversity or resource conservation, and to develop appropriate responses with foresight. That is an important building block in creating additional value for both the Group itself and its stakeholders.

## How does the handling of classic and ESG risks or opportunities differ?

The first difference lies in how they are identified. To stick with the metaphor of the risk map, it is important to be sensitive to the new topics and to view the entire environment with a 360-degree view. It is about raising awareness of the expanded risk map in our organisation. In this way, early warning signals can be detected as quickly as possible. At the same time, such assessment has also become more complex, since classical risks can usually be quantified more easily. Putting a price tag on ESG risks that shows the potential impact on the company's results is much more difficult. This is mainly due to the fact that cause and effect are often not clearly connected. Sometimes, effects occur in places that were not previously considered. We have to deal with this and adjust our methods accordingly. In addition, another perspective must be taken into account in the assessment: the inside-out perspective. It assesses how a potential damage resulting from a risk would affect the Group's environment.



Sensitivity to new topics in the risk landscape and a 360-degree view are important in order to counteract risks at an early stage and take advantage of opportunities.

## Methodology is a good keyword. Can such heterogeneous risks as, for example, human rights violations and the shortage of skilled workers be managed in one system at all?

To put it bluntly, we cannot afford to work with a patchwork. We have a clearly defined process and an associated IT system, a "single source of truth". The input for this comes from numerous sources. For the

area of human rights, the Social Compliance department, among others, provides important information via the [Human Rights Respect System](#). Risks arising from the shortage of skilled workers, on the other hand, would be reported primarily by Human Resource Management. Behind each of these are different evaluation logics, yet everything is based on a uniform screening and reporting process. All of this serves our goal in central risk management: to bundle and analyse information. The assessment of external impulses also plays an important role. To capture them, we have established a so-called "risk radar" within the company, where we regularly work together with colleagues from the investor relations, external affairs or communications departments, for example. There, early warning signals and current issues are discussed, and it is examined what opportunities and risks could arise for us. The earlier we recognise developments, the better.

## What possibilities do you see to promote early detection?

Developing sensitivity for ESG issues throughout the entire corporation is a central aspect. We are achieving this step by step, based on information accessible to everyone and a dialogue within the Group. At the same time, we need people who openly address risks. This is what is meant when we talk about a speak-up culture. This culture is essential for risk management because it helps to ensure that issues critical to success are discussed and assessed at an early stage. Perhaps some may be concerned about being seen as a sceptic, which is why it is not so easy to deal with risks in a transparent way. Part of our job in risk management is to address these challenges and alleviate any concerns. Our team therefore works across divisional and national boundaries to create a culture in which we jointly assess risks at an early stage and take countermeasures together early on as well.

### Thilo Mangold

heads Group Risk and Opportunity Management at the Mercedes-Benz Group. Although he mostly deals with risks in his daily work, he still describes himself as a very optimistic and at the same time realistic person.

# “We need to make sure that value is distributed equitably”

Inequalities of outcome and opportunity are jeopardizing social cohesion, making it more difficult to work together towards a net-zero future. What should businesses do to support equality, fairness and inclusion? And what role can a luxury car manufacturer like Mercedes-Benz play in this respect? An interview with James Gomme, head of WBCSD’s (World Business Council for Sustainable Development) Business Commission to Tackle Inequality.



**James Gomme**  
WBCSD

**Mr. Gomme, income and wealth have always been unequally distributed in societies. However, you say that a critical point has now been reached. Why?**

First of all, while inequality between countries has been decreasing in recent decades, the wealth and income gap within countries has widened. We are now seeing wealth inequality as high as it has been since the early 1800s, with the richest 10 percent of the population holding 75 percent of all wealth, and the poorest 50 percent holding just 2 percent. Historically, extreme inequality has been a precursor to instability, and today is no different. At the same time, other emerging trends such as conflict, climate change, technological disruption, and the COVID-19 pandemic, for example, are all hitting the most vulnerable the hardest and have the potential to further escalate the scale of inequality around the world in the years ahead.

So, while inequality has been a part of our societies over the ages, we have, I believe, now reached a critical juncture. The high level and structural nature of inequality, coupled with several historic disruptions, make mounting inequality a systemic and a business risk – one that affects not only individual communities or companies, but entire economies and societies.

**How does this imbalance relate to the climate crisis and the transformation aim to net-zero?**

The planetary crisis that we are facing is having profound impacts on people. It is undermining human health, disrupting access to essential products and services, and destroying livelihoods. The World Bank predicts that 132 million people could be pushed into extreme

poverty by 2030, as a result of climate change if we do not take concerted action. It will therefore not be possible to tackle inequality without robust efforts to mitigate and adapt to climate change. At the same time, it will also be impossible to address the climate emergency without putting people at the center of this agenda and working to ensure that the journey to a net-zero economy creates a fairer, more prosperous future for all.

We must recognise that the transformation is going to profoundly impact workers, suppliers, communities, and consumers at the local and global level. Companies need to engage with governments and other stakeholders to intentionally and collaboratively mitigate negative impacts and to ensure a transition in which everyone can see opportunity.



If all stakeholder groups work together, a just transition can succeed.

### What can companies do to foster this scenario?

There are a number of key actions that business can take to tackle inequality. First of all, corporate respect for human rights should sit at the centre of everything. It helps to ensure that human dignity moves to the center of how business gets done. It reinforces a company's capacity to lift people out of poverty, improving the lives of the world's most vulnerable people.

Following from that there is a role for business in terms of utilizing its innovation and capacity building to make essential products and services more accessible and affordable for consumers who are currently underserved. Business has to explore new ways, perhaps in collaboration with government or through new blended finance mechanisms, to try and make sure that everyone has access to what they need to be healthy

and productive. And then, there's a key pillar of action around jobs and economic opportunities. Business has to make sure that opportunities are available to everybody, regardless of their backgrounds, and that workers and those entering the workforce are empowered with the right skills to thrive, both now and in the future. Finally, there is also an urgent need to ensure that value and risk are distributed more equitably. Today, over a billion working people worldwide earn less than they need to afford a decent standard of living. To tackle inequality and restore faith in our economic system, it is critical to ensure that work provides a path out of poverty and an opportunity for upward mobility and prosperity for all.

### What responsibility do these topics imply for a luxury manufacturer like Mercedes-Benz?

I think, there is a huge opportunity to redefine what luxury means, in terms of not only being the experience that the consumer has in relation to the product, but also the assurance that this product has been produced in a way that maximises positive social impact throughout its value chain. That every component of that product has been sourced or created in a way that has distributed value to a wide variety of global stakeholders, has enriched their lives and has made a contribution to tackling inequality. Our research at the BCTI (Business Commission to Tackle Inequality) indicates that this is increasingly important for consumers and moving forward could represent an important source of competitive advantage.

### Social inequality is often primarily viewed from a risk perspective. Do you also see opportunities when it comes to tackling inequality and realizing a more just and inclusive society?

While the business case for action to tackle inequality is certainly about mitigating risk, it is also about building a world of opportunity in which companies can thrive in the long-term. Tackling inequality can strengthen the operating environment by building trust, enhancing social and political stability, and containing crises. There is also mounting evidence that it is an important driver for long-term, sustainable



The way the entire global business community is rallying behind net-zero commitments shows that the path can only be taken together. This also applies to the path to social goals.

economic growth. Furthermore, as momentum builds behind a shift in the way business performance is perceived and measured, tackling inequality is also about unlocking a variety of company-level benefits, including attracting and retaining talent, winning consumers, enhancing access to capital and staying ahead of policy and regulatory change. Of course, measures to promote social equality will come with costs, but these costs should be seen as investments in long-term business success. So, yes, there are huge opportunities, both in the operating environment and at the individual company level.

### **What encourages you that the global community will succeed in reversing the current trend and effectively combating inequality?**

There are a few things that give me hope. Firstly, I take a lot of encouragement from the progress that has been made with regard to efforts to address the climate emergency in recent years. Of course, we still have a lot of work to do here as well, but we are seeing the entire global business community rally behind net-zero commitments. We have also seen governments take strong action, and we have seen bodies like TCFD (Task

force on Climate-related Financial Disclosure), and the ISSB (International Sustainability Standards Board) start to set clear standards which are helping to further mainstream action. For me, this represents an important blueprint for the path we need to tread on the social side of sustainable development as well.

And then on a personal level, interacting with leading companies in this space also gives me hope. There is a growing community of passionate individuals and purpose-led companies, who are driving this agenda forward at pace, and we are really pleased to be able to count on their leadership. The urgent call to action now is for all businesses to use the tools and resources at their disposal to head off the risks posed by mounting inequality. We need to ensure that equal opportunities and better outcomes are available for all.

#### **James Gomme**

joined WBCSD in March 2016 on a long-term secondment from Mitsubishi Corporation, Japan's largest general trading and investment company. In July 2021, James launched The Business Commission to Tackle Inequality, a high-profile initiative that is seeking to clearly establish the role of business when it comes to tackling the critical systemic challenge of mounting levels of inequality globally. Initial recommendations for action are summarized in the report [“Tackling inequality: The need and opportunity for business action.”](#)

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The background features a dark, futuristic cityscape with wireframe buildings and glowing red light streaks. In the foreground, a car is blurred, suggesting motion. The overall theme is technology and speed.

Sustainable corporate governance

# Sustainable business strategy

## Sustainability as a driver of change

The Mercedes-Benz Group aims to create value that is sustainable – economically, ecologically and socially: This is one of the core principles of the Group. It applies not only to the Group's own products and manufacturing locations, but also to the entire upstream and downstream value chain. It has translated this approach in its sustainable business strategy, with which it firmly embeds sustainability considerations in the daily business activities. In this way, the Mercedes-Benz Group intends, among other things, to fulfil the demands and expectations of its stakeholders – i.e. customers, employees, investors, business partners, **non-governmental organizations** and society as a whole.

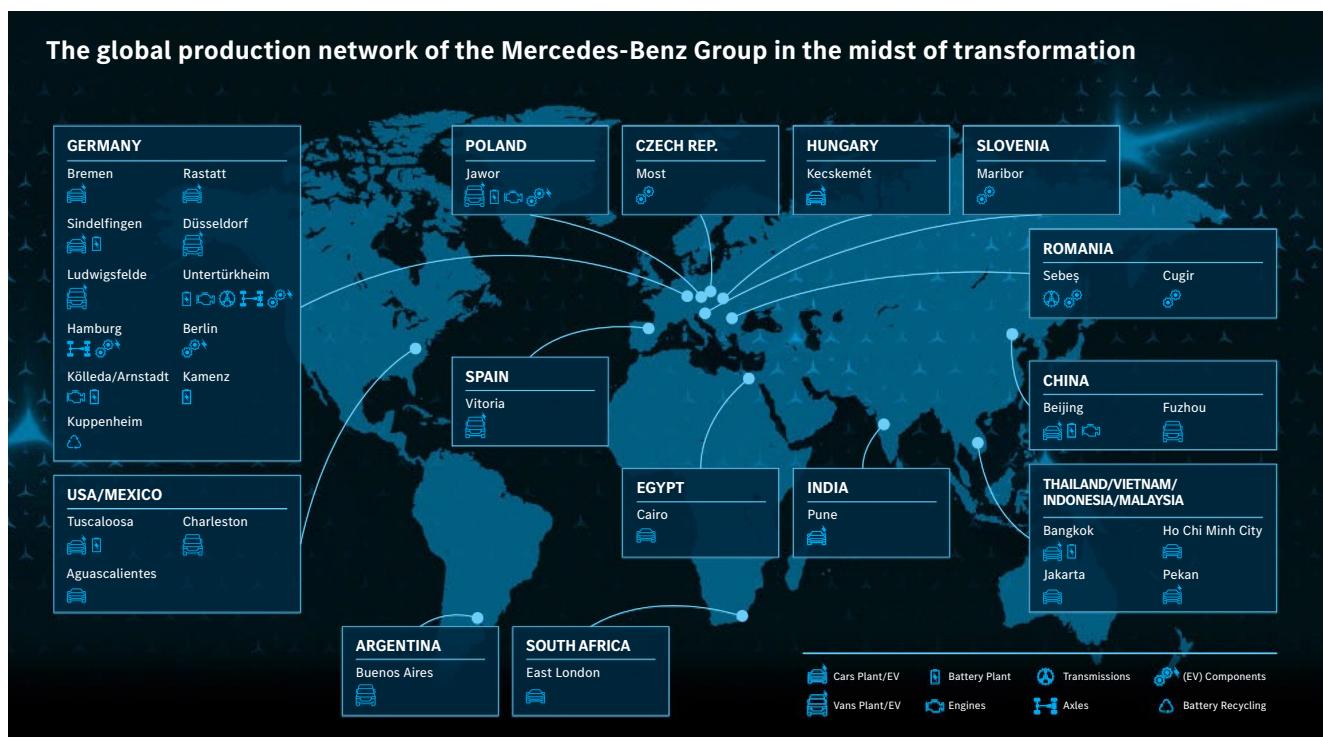
🌐 Strategy chapter, AR 2022

One of the most important transformation goals at the Mercedes-Benz Group is **decarbonisation**, which the Group has made a firm component of its sustainable business strategy. At Mercedes-Benz Group, this goal is reflected in “Ambition 2039” and the “Electric Only” approach. By the end of this decade, Mercedes-Benz intends to be all-electric wherever market conditions allow.

## The Mercedes-Benz Group at a glance

GRI 2-1/-2/-4/-6

The Mercedes-Benz Group AG is the parent company of the Mercedes-Benz Group and has its registered office in Stuttgart. With effect from 1 February 2022, Daimler AG changed its name to Mercedes-Benz Group AG. As well as Mercedes-Benz Group AG, the Mercedes-Benz Group is made up of all subsidiary companies over which the Mercedes-Benz Group AG



**Mercedes-Benz Group**



MAYBACH

MERCEDES-EQ

Mercedes *me*

Mercedes-Benz Bank

Mercedes-Benz  
Financial Services



can exert a direct or indirect controlling influence. The Mercedes-Benz Group AG determines the strategy of the Group, is its controlling body and, as the Group parent company, is responsible for legal, regulatory and compliance functions worldwide.

The Mercedes-Benz Group markets and sells vehicles and services in almost all countries of the world and has some 30 production sites in Europe, North and Latin America, Asia and Africa.

## Company profile

	<b>2022</b>
<b>Employees (Status December 31, 2022)</b>	<b>168,797</b>
<b>Production sites</b>	<b>30</b>
<b>Unit sales (in mill. units)</b>	<b>2.456</b>
<b>Financial key figures (in € millions)</b>	
Revenue	150,017
Research and development expenditure Mercedes-Benz Cars and Mercedes-Benz Vans	8,541
Personnel expenses (wages and salaries, social welfare services)	29,607
Total dividend (in €)	5.20

The brand portfolio of Mercedes-Benz Cars includes, along with the Mercedes-Benz brand, the brands Mercedes-AMG, Mercedes-Maybach and Mercedes-EQ. The Mercedes me brand offers access to the digital services of Mercedes-Benz Cars. Mercedes-Benz Vans is a full-service provider in the van sector. The Mercedes-Benz Mobility business division supports sales of the Mercedes-Benz Group's automotive brands around the world through tailored mobility and financial services. Mercedes-Benz Mobility is also active in the field of innovative mobility services.

## Areas of action and the foundations of sustainability

### GRI 3-2

The Mercedes-Benz Group acts in line with the sustainable business strategy adopted by the Board of Management of Mercedes-Benz Group AG in 2019 with the agreement of the Supervisory Board. Sustainability topics are thus an integral part of the business strategy.

#### Strategy chapter, AR 2022

The Mercedes-Benz Group has set itself ambitious goals and defined six strategic areas of action for reaching these goals. The strategic goals are based on the UN's 17 Sustainable Development Goals (SDGs) — especially SDGs 8 and 9 and 11 to 13 — among other factors. In addition, they take into account recognized international frameworks, the requirements of the external and internal stakeholders and global trends. Group-wide areas of action and areas of responsibility, as well as business-specific targets, processes and measures are derived from this analysis. The Mercedes-Benz Group undertakes periodic materiality analyses. It uses these as the basis for a discussion of the current fields of action and an assessment of the need for updates.

The Mercedes-Benz Group has also formulated strategic ambitions for each of the six areas of action:

- Climate protection and air quality:** Plans call for the Mercedes-Benz new vehicle fleet to be CO<sub>2</sub>-neutral on the balance sheet across the entire value chain by 2039 and to no longer have any relevant impact on NO<sub>2</sub> levels in urban areas by 2025.
- Resource conservation:** The Mercedes-Benz Group wants to decouple resource consumption from business volume growth.
- Sustainable urban mobility:** The Mercedes-Benz Group wants to contribute to the improvement of the quality of life in cities through its leading mobility and transport solutions.
- Traffic safety:** The Mercedes-Benz Group is working to make its vision of accident-free driving a reality as it develops automated driving systems while also taking social and ethical issues into account.
- Data responsibility:** The future of the Mercedes-Benz Group consists of sustainable, data-based business models. With these business models, it focuses on the needs of its customers and the responsible handling of data.
- Human rights:** The Mercedes-Benz Group has assumed responsibility for respecting and upholding human rights along its automotive value chain.

The Mercedes-Benz Group has defined three enablers, or principles, that are crucial for achieving success in the six areas of action: **integrity**, **people** and **partnerships**.

1. **Integrity:** In order to firmly anchor integrity in all areas, the Mercedes-Benz Group considers two crucial aspects: first of all, by establishing adequate structures with appropriate policies and processes, the organisation is able to provide the foundation for all parties to act with integrity. Secondly, the Group focuses on putting each employee individually in a position to understand the concept of integrity and thereby to act ethically and sustainably.

2. **People:** As an attractive employer, the Mercedes-Benz Group promotes the diversity of its workforce and provides the necessary skills to master the challenges of digitalisation.

3. **Partnerships:** The Mercedes-Benz Group enters into partnerships with social and political players in order to achieve the goals of the sustainable business strategy against the backdrop of the ecological and social challenges in these times. The Group's principles for political dialogue and advocacy provide the basis for responsible and reliable action within these partnerships.

### Six fields of action and three enablers

#### Areas of action



#### Enabler



## United Nations Sustainable Development Goals

In 2015, the United Nations defined a blueprint for worldwide sustainable development. This includes 17 Sustainable Development Goals (SDGs). Through their innovation and investment power, businesses play a decisive role in achieving these goals – which the Mercedes-Benz Group actively embraces.

In order to assess its corporate performance with regard to the 17 SDGs, the Mercedes-Benz Group conducted an SDG analysis together with the analytical experts of TruCost in 2020. This involved examining the positive and potentially negative impacts of its business activities on the SDGs.

In addition, the Mercedes-Benz Group identified those UN Sustainability Goals that entail the greatest opportunities and risks for itself.

The Mercedes-Benz Group uses the results to make an even greater contribution to achieving the UN Sustainable Development Goals through its correspondingly aligned business activities. To this end, the Mercedes-Benz Group is focusing on the areas in which it can create the greatest value. One example of this is the “Electric only” approach.

The following SDGs are the focus of the work of the Mercedes-Benz Group:



### SDG 8 – Decent Work and Economic Growth:

The Group develops and implements a risk-based management approach to respect and protect human rights in its own business units as well as in the supply chain – through this, the Mercedes-Benz Group supports the implementation of humane working conditions. Through its production and large procurement volume, the Mercedes-Benz Group also creates employment all over the world.



### SDG 9 – Industry, Innovation and Infrastructure:

**SDG 9 – Industry, Innovation and Infrastructure:** Digitalisation and electrification – with these, the Mercedes-Benz Group is shaping the sustainable mobility of the future and contributing to greater safety and climate protection, for example. It is also able to demonstrate the potential of digital innovations for society.



### SDG 11 – Sustainable Cities and Communities:

**SDG 11 – Sustainable Cities and Communities:** The Mercedes-Benz Group is making a contribution to sustainable mobility in densely populated urban areas with its vehicles, data-based solutions for greater traffic safety or improvement of traffic flow, as well as multimodal connectivity of mobility packages.



### SDG 12 – Sustainable Consumption and Production:

**SDG 12 – Sustainable Consumption and Production:** The Mercedes-Benz Group is working to increase the efficiency of its vehicles and significantly reduce its use of raw materials. One of the tasks here is to reinforce the closed material loops for the primary raw materials which are needed for electric vehicles. In this way, the Mercedes-Benz Group is setting the course for sustainable production.



### SDG 13 – Climate Protection Measures:

**SDG 13 – Climate Protection Measures:** Through its sustainable business strategy and the associated measures and targets for reducing emissions from its own vehicles, plants and supply chains, the Mercedes-Benz Group aims to reduce its environmental impact on the climate.

# Along the value chain

**GRI 2-6**

The automotive industry is currently undergoing a profound process of change, which the Mercedes-Benz Group would like to actively shape. In doing so, the Group considers the entire value chain. This encompasses the complete life cycle of the vehicle – from development to its recycling after the use phase. It aims to avoid or

minimise the negative impacts of its business activities as far as possible, and to create sustainable value – economically, ecologically and socially.

The diagram below shows the main stages of the Mercedes-Benz value chain in simplified form.



## **Product development**

The Mercedes-Benz Group offers a broad product portfolio of passenger cars along with both private and commercial vans. It is systematically electrifying all model series and, as part of this, is strongly involved in research and development.



## **Supply chain**

Mercedes-Benz vehicles consist of several thousand components – raw materials such as iron, copper or aluminium, preliminary products, preliminary products such as steel, semi-finished products such as seats, wiring harnesses, etc. – and the supply chain is accordingly complex: it comprises nearly 40,000 direct suppliers for production and non-production materials, mainly from the regions of Europe, Asia and North America. These in turn have sub-suppliers.



## **Production**

The Mercedes-Benz Group has more than 30 production sites of its own on five continents worldwide. There, components for electric vehicles are assembled, transmissions, axles and engines are produced, batteries are assembled or recycled, or the final assembly of vehicles takes place.

## Use/operation



With its brands and mobility products/services, the Mercedes-Benz Group is represented in almost every country in the world. In 2022, Mercedes-Benz delivered around 2.5 million passenger cars and vans to its customers. It markets all-electric vehicles under the Mercedes-EQ brand. It also wants to support its customers in adopting an eco-friendly driving style and in their decision to buy locally emission-free vehicles.

## Remanufacturing & recycling



The Mercedes-Benz Group observes the [waste hierarchy](#), with the top priority of avoiding waste. Only then, according to the waste hierarchy, should measures be implemented to allow reuse of various components and parts through remanufacturing, or to recover materials through recycling.

The following table shows some of the significant progress made by the Mercedes-Benz Group in the various fields of action and with respect to its defined enablers over the course of 2022.

				
<p><b>Product development</b>  <b>8.5 billion euros</b>          spent on research and development expenditures          By 2030, the Mercedes-Benz Group intends to invest a total of more than <b>1.3 billion euros</b> in the qualification and training of employees in Germany          The proportion of women in senior management positions at the Mercedes-Benz Group worldwide is <b>24.7 %</b>          The “DRIVE PILOT” has been approved for sale in Germany, enabling conditional automated driving (SAE Level 3) on suitable highway sections in Germany at speeds of up to 60 km/h.</p>	<p><b>Supply chain</b>          Almost <b>86 %</b> of the production material suppliers of Mercedes-Benz Cars and Mercedes-Benz Vans have signed the “Ambition Letter”  <b>825</b> on-site visits at its production material suppliers with regard to compliance with various sustainability requirements were performed by the Mercedes-Benz Group  <b>41 %</b> of all raw materials with increased risk checked</p>	<p><b>Production</b>          Share of renewable energies in the production of Mercedes-Benz Cars and Mercedes-Benz Vans in total electricity consumption is <b>100 %</b>          CO<sub>2</sub> emissions at Group-wide production sites worldwide reduced by <b>43 %</b> compared with 2021          Energy consumption per vehicle at Mercedes-Benz Cars reduced by <b>17 %</b> compared to 2021; at Mercedes-Benz Vans by <b>15 %</b>          Water consumption per vehicle at Mercedes-Benz Cars reduced by <b>10 %</b> compared to 2021; at Mercedes-Benz Vans by <b>14 %</b></p>	<p><b>Vehicle operation</b>          The share of electrified vehicles (xEV) in Group sales at Mercedes-Benz Cars is <b>16 %</b> worldwide          The share of fully electric vehicles in Group sales at Mercedes-Benz Vans is <b>4 %</b> worldwide          The average CO<sub>2</sub> emissions of the Mercedes-Benz new passenger car fleet in Europe (European Union, Norway and Iceland) are expected to be 115 g/km (including vans registered as passenger cars) when applying the legal regulations          The Mercedes me Charge digital charging service has integrated over <b>1,000,000</b> AC and DC charging points worldwide by the end of 2022</p>	<p><b>Recycling, remanufacturing and disposal</b>          Pilot factory built at Kuppenheim site for recycling lithium-ion battery systems;  <b>73 %</b> of the returnable high-voltage lithium-ion batteries are being routed to remanufacturing for reuse in vehicles or for second life in energy storages  <b>95 %</b> of the materials in all cars and vans of up to 3.5 t gross vehicle weight can be reused or recovered</p>

# Sustainability management

## Materiality analysis

GRI 3-1/-2

A comprehensive materiality analysis was carried out in 2021 in order to determine which sustainability topics are particularly relevant for the Mercedes-Benz Group and its stakeholders. This was completed in 2022.

This materiality analysis addressed the six strategic areas of action as well as further potentially relevant sustainability topics and trends. A total of 17 topics were evaluated, and these were further divided into sub-topics.

In its analysis, the Mercedes-Benz Group considered two perspectives:

- **Inside out:** The positive or negative influences of the Group's business activities on the economy, the environment and society are brought into focus.

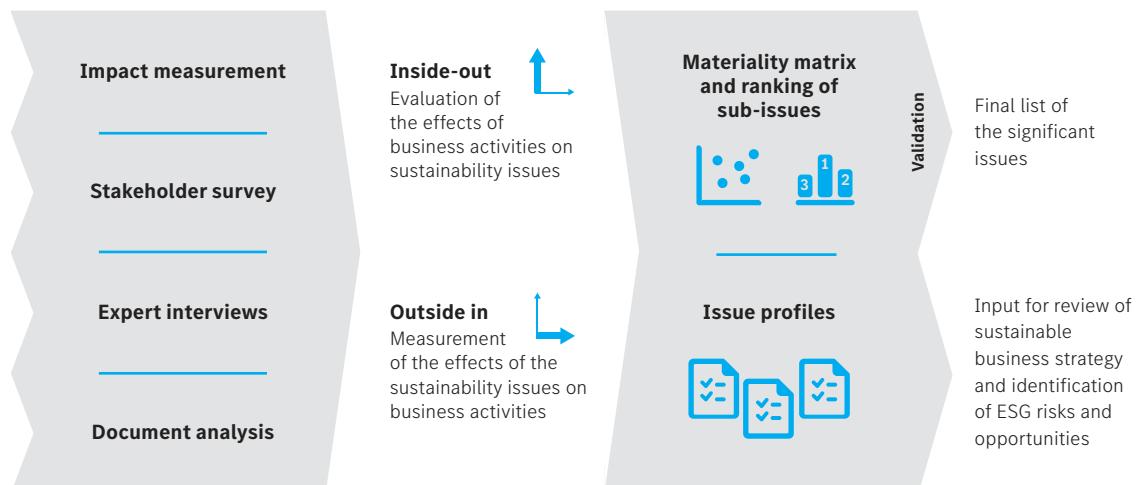
- **Outside in:** The impact of external requirements and expectations of the Group's sustainability performance on its business activities, business results and general situation is considered.

The analysis consisted of several components.

The basis for assessing the relevance of the sustainability topics and trends was a comprehensive desk analysis and an international online survey. The survey queried approximately 15,000 people from 52 countries who depicted relevant stakeholder groups such as employees, private and business customers, interested consumers, suppliers and business partners, investors, politicians and government officials, scientists, and representatives of government administrations and  non-governmental organisations (NGOs).

In addition, the Mercedes-Benz Group conducted around 20 interviews with both internal and external experts from the aforementioned stakeholder groups.

## Procedure for materiality analysis



The goals here were to assess the sustainability performance of the Group to date and identify sustainability trends in order to gauge the relevance of the sustainability topics.

The Mercedes-Benz Group also took the first steps to evaluate the effects of its business activities on the environment and society. The results were taken into account when assessing the relevance of topics in the inside-out dimension.

In order to assess topics from an outside-in perspective, the Mercedes-Benz Group analysed the reporting of relevant competitors on their business development and sustainability performance, the media reporting on selected sustainability topics over a longer time period,

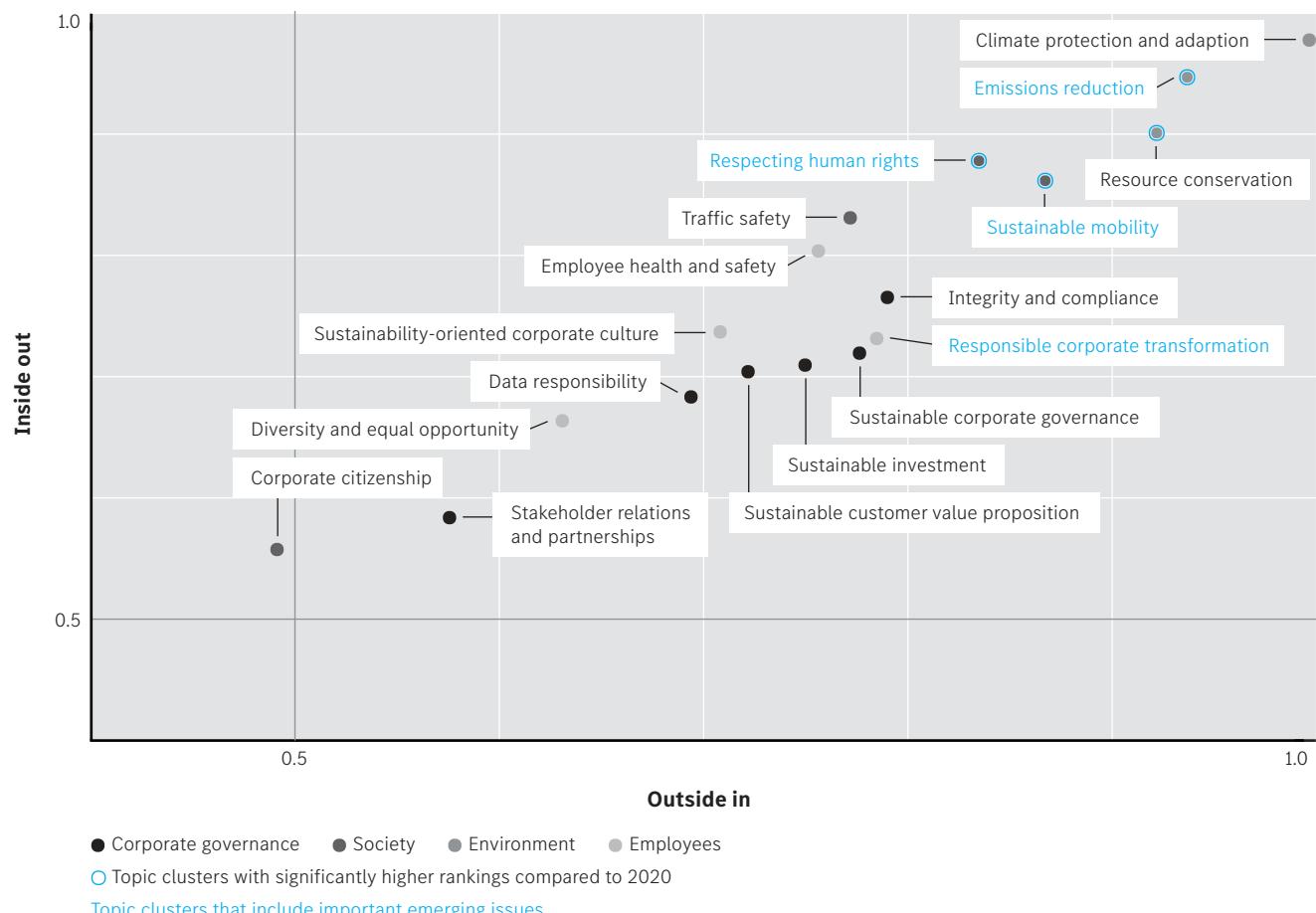
central NGO positions, regulatory requirements, as well as information relevant to the capital market, and had these weighted by the stakeholder groups according to their relevance.

In a subsequent step, the sustainability topics that resulted from this analysis were assessed by the Mercedes-Benz Group with regard to financial position, liquidity, cash flows, profitability and business development in order to define the topics for the Non-Financial Declaration.

#### ⊕ Non-Financial declaration, AR 2022

The materiality analysis thus conforms with the reporting requirements of the [⊕ Global Reporting Initiative \(GRI\)](#) and the CSR Directive Implementation Act (CSR-RUG).

#### Materiality matrix<sup>1,2</sup>



1 For readability, the graph shows a section of the materiality matrix.

2 The marked lines on the x and y axes show the materiality threshold set by the Mercedes Benz Group, above which topics for this Sustainability Report were classified as material.

The materiality matrix shows the topics according to their relevance: “Climate protection and adaptation”, “Emission reduction” and “Resource conservation” have the highest importance based on the analysis and the stakeholder survey. The same applies to the thematic complexes of “Respecting human rights” and “Sustainable mobility”, which have become even more relevant. This confirms the Group’s own strategic fields of action. A new addition is the topic complex “Responsible corporate transformation”.

The results of the materiality analysis were discussed in depth with all responsible departments and were presented to the Group Sustainability Board (GSB). They provide an important basis for critical consideration and further development of the sustainable business strategy. In addition, the Mercedes-Benz Group bases its identification of sustainability-related opportunities and risks on the topics identified in the materiality analysis. The Mercedes-Benz Group discloses significant  ESG risks and opportunities in the Risk and Opportunity Report included in the Annual Report.  
 [Risk and Opportunity Report, AR 2022](#)

## Topic complex and topics

Topic cluster	Topics
<b>Sustainable corporate governance</b>	Embedding sustainability in the management of the company across the value chain
	Consideration of environmental and social risks (ESG) in risk management
	Embedding sustainability in the business strategy
	Sustainability as a criterion for remuneration
	Responsible tax payment and handling of public funding
<b>Climate protection and adaptation</b>	Transparent reporting on sustainability matters
	Zero-emission vehicles/Electric mobility
	Low carbon vehicles
	Decarbonising production and further business activities of the Mercedes-Benz Group
	Climate protection in the supply chain
<b>Emission reduction</b>	Green charging of e-vehicles
	Climate adaptation of Mercedes-Benz sites and operations
	Low-pollutant vehicles
<b>Resource conservation</b>	Low-pollutant production
	Noise control
	Energy efficiency and renewable energies
	Sustainable use of water
	Prevention of pollution from waste
<b>Sustainable mobility</b>	Nature conservation and biodiversity
	Material efficiency and use of sustainable materials
	Circular economy
	Resource conservation in the supply chain
	Sustainable mobility systems
	Access to mobility
	Sustainable logistics
	Expansion of the charging infrastructure

<b>Topic cluster</b>	<b>Topics</b>
<b>Traffic safety</b>	Vehicle safety
	Safe road traffic
	Automated driving
<b>Data responsibility</b>	Data protection
	Cyber security
	Responsible use of Artificial Intelligence
<b>Respecting human rights</b>	Data-based solutions for sustainable mobility
	Respecting human rights in own entities
	Human rights due diligence in the supply chain
<b>Integrity and compliance</b>	Human rights due diligence in sales
	Compliance with laws and regulations
	Integrity
<b>Responsible corporate transformation</b>	Integrity in business practices of suppliers and business partners
	Responsible and sustainable employment
	Corporate co-determination
<b>Employee health and safety</b>	Education and training
	Workplace health promotion
	Occupational health & safety
<b>Sustainability-oriented corporate culture</b>	Leadership culture
	Modern types of employment and working times
<b>Diversity and equal opportunities</b>	Diversity in the workforce
	Adequate remuneration
	Consideration of diversity in the development and marketing of products and services
<b>Stakeholder relations and partnerships</b>	Political dialogue at national and international level
	Stakeholder dialogue at company level
	Local and regional stakeholder dialogue
<b>Corporate citizenship</b>	Company-run projects for the community (commitment to location)
	Employee engagement and volunteering
	Worldwide promotion of projects run by non-profit organisations and foundations within the scope of global responsibility
<b>Sustainable customer value proposition</b>	Customer awareness of sustainability
	Transparent labelling of products and services
	Sustainability of sales network
<b>Sustainable investment</b>	Mercedes-Benz as a sustainable opportunity for investment
	Mercedes-Benz as a sustainable investor

## Managing sustainability

GRI 2-1/-6/-9/-11/-12/-13/-14/-18/-19/-20 | GRI 303-1

Mercedes-Benz Group AG is responsible for the Group governance and provides services for all corporate entities. As the parent company, it also defines the strategy of the Mercedes-Benz Group. It decides on strategically important matters in its operational business and ensures regulatory, legal and compliance functions throughout the Group.

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 Board of Management manages the Mercedes-Benz Group, while the Supervisory Board monitors and advises the Board of Management. The two bodies work together very closely in the interests of the well-being of the Group. The Mercedes-Benz Group adheres to the German Corporate Governance Code, as documented by the annual Statement of Compliance.

[Statement of Compliance 2022](#)

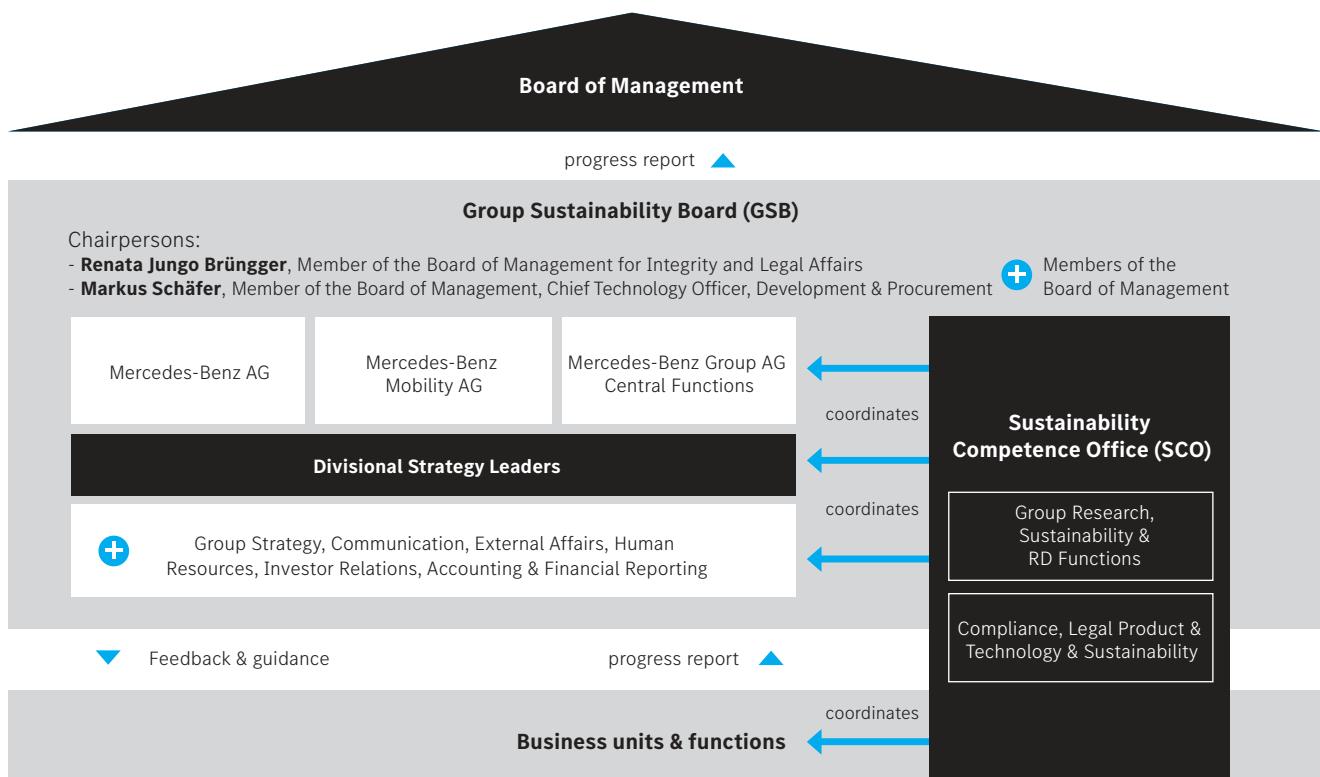
The remuneration for the Board of Management and Level 1-3 executives, as well as for Level 4 managers in some cases, includes both financial and sustainability targets in the form of the variable components of the company bonus. These consist primarily of transformation targets including those involving CO<sub>2</sub> emissions, due diligence obligations in raw material procurement, and traffic safety in addition to further non-financial targets. These targets relate to the topics of customers, integrity and employee commitment and diversity. In addition, the Mercedes-Benz Group defines further criteria in the areas of the environment, social concerns and governance in order to determine the annual bonus for the Board of Management and senior executives. Since 2020, this has also included the achievement of CO<sub>2</sub> fleet targets.

[Remuneration Report 2022](#)

[Annual Report 2022](#)

The Mercedes-Benz Group manages the work in the strategic areas of action — alongside other tasks — by means of an internal reporting process that uses detailed scorecards. This process is supported by

## Governance



clear lines of responsibility in the management and organizational structures used at all of the divisions.

The Group Sustainability Board (GSB) is the central management body for all sustainability topics and reports to the Board of Management. The GSB is chaired jointly by Renata Jungo Brüngger (the Board of Management member responsible for Integrity and Legal Affairs) and Markus Schäfer (the Board of Management member responsible for Development and Procurement, who is also the Chief Technology Officer). The Chairman of the Board of Management and all other Board of Management members, as well as the managers of all relevant functions and departments, are members of the GSB – for example Finance, Investor Relations, External Affairs, Marketing & Communications and Human Resources. The management processes with cross-divisional and functional relevance in relation to sustainability are covered by this governance structure in order to regularly review and improve the Mercedes-Benz Group's performance.

The GSB decides on relevant sustainability issues and assigns tasks to the respective areas of responsibility. The GSB regularly submits progress reports and proposals for decisions to the Board of Management regarding the action fields included in the Group's sustainable business strategy. The Supervisory Board monitors and advises the Board of Management in its deliberations relating to the transformation targets, which also include non-financial and sustainability-related targets.

The operational work is done by the Sustainability Competence Office (SCO), which consists of experts from the units managed by the two Co-chairs of the GSB as well as additional specialists from Corporate Strategy, Finance and Corporate Communications. The SCO provides advice to the specialist units and helps them complete the tasks assigned to them by the GSB. 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 are reported to the GSB and the Board of Management of Mercedes-Benz Group AG in the form of detailed scorecards at least twice a year.

An internal dialogue format ("Sustainability Forum") has been established to strengthen the exchange between the SCO at the Group's headquarters in Stuttgart-Untertürkheim and the specialists at the various national and international companies. The forum focuses on information and dialogue on current developments of the sustainable business strategy, the associated goals as well as the six fields of action and three enablers. In addition, there is an active exchange of information and knowledge on developments in the different countries and national companies as well as on best-practice approaches.

The Mercedes-Benz Group has also developed specific training measures to encourage employees in sales branches to adopt sustainable practices. Since 2021, for example, it has regularly offered online sales training to promote the economical use of resources such as water and electricity.

#### ↗ More sustainable sales operations

The Supervisory Board of Mercedes-Benz Group AG monitors the implementation of the sustainable business strategy. It is therefore important that the Supervisory Board and its committees are adequately informed about the sustainability issues related to the environment, society or corporate governance (ESG). To ensure this, ESG topics are regularly addressed at the Supervisory Board meetings. ESG experts from different departments are consulted for this purpose.

⦿ 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. On the Supervisory Board, Dame Polly Courtice in particular contributes her extensive expertise in the area of sustainability at various points.

#### ↗ Advisory Board as an important driving force

### Policies, standards and principles

#### GRI 2-23-/24

Integrity, compliance and legal responsibility are cornerstones of sustainable corporate governance and are obligatory for the actions of all employees of the Mercedes-Benz Group. The central requirements for this are set out in the Group's [⊕ Integrity Code](#). This is supplemented by other in-house principles and policies.

The “House of Policies” is the digital platform for policies. All internal policies and works agreements at the Mercedes-Benz Group are stored here in a user-friendly database, which is accessible to all employees. The policies are available in several languages. Employees can also access compact web-based training on policies, while Group companies can access advice on local policy implementation.

The Mercedes-Benz Group also uses the ten principles of the UN Global Compact (UNGC) as a fundamental guide for its business activities. As a founding member, it is strongly committed to the [UN Global Compact \(UNGC\)](#).

The Mercedes-Benz Group's internal principles and policies are founded on this international frame of reference and other international principles, including the Core Labour Standards of the International Labour Organisation (ILO), the [OECD Guidelines for multinational enterprises](#) and the [UN Guiding Principles on Business and Human Rights](#).

## Risk and opportunity management

[GRI 2-12/-23/-24/-25](#) | [GRI 3-3](#) | [GRI 413-2](#)

The Mercedes-Benz Group is exposed to a large number of 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 the business divisions from achieving their goals. 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 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.

The risk management system is intended to systematically and continually identify, assess, control, monitor

and report risks threatening the Mercedes-Benz Group's existence and other material risks in order to sustainably support the achievement of the corporate targets and to enhance risk awareness at the Group. The risk management system is integrated into the value-based management and planning system of the Mercedes-Benz Group and is also an integral part of the overall planning, management and reporting process in the legal entities, divisions and corporate functions.

The opportunity management system at the Mercedes-Benz Group is based on the risk management system. The objective of opportunity management is to recognise the possible opportunities arising in business activities early on and to use them in the best possible way for the benefit of the Group. This should result in planned targets being met or exceeded.

As part of the planning process, risks and opportunities are recorded within an observation horizon of up to five years. Strategic risks and opportunities are also considered in the risk and opportunity management process. The employees responsible for risk management have the task of defining and, if necessary, initiating measures for the identification, assessment, avoidance or mitigation of risks or for the protection of the Group against such risks. In the context of opportunity management, measures are to be taken for seizing, improving and (fully or partially) realising opportunities.

## Firm integration of sustainability-related risks and opportunities

Risk and opportunity management is a firm component of the Group-wide planning, controlling and reporting process. It is designed to support the sustained achievement of the corporate targets and to ensure risk awareness at the Mercedes-Benz Group. In identifying sustainability-related risks and opportunities, Mercedes-Benz Group is guided by the topics identified by the materiality analysis 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 involving environmental, social or governance factors (ESG), the occurrence of which may have an actual or potential impact on the Mercedes-Benz Group's profitability, liquidity and capital resources. This further includes any risks and opportunities whose

occurrence may have a positive or negative impact on the economy, the environment, or society.

Sustainability aspects — as they relate to the environment — include, among other things, the effects of climate conditions and changes, as well as the impact of the Group's transformation process as a result of changed political conditions, technological developments and changing markets.

Labour law standards, occupational and product safety, product liability and suppliers' compliance with labour law standards are examples of circumstances categorized as social issues. The area of governance is concerned with matters such as honesty in tax affairs, measures taken to prevent corruption, and ensuring data protection.

⌚ ESG-related risks and opportunities associated with the Mercedes-Benz Group's own business activities, business relationships and products and services, and which are very likely to have a serious negative impact on the non-financial aspects in accordance with Sections 315c, 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 environment factors and are thus also identified and assessed as part of the risk management process.

Further information can be found in the Risk and Opportunity Report.

#### ⌚ **Risk and Opportunity Report, AR 2022**

#### **Communicating and assessing risks and opportunities**

##### **GRI 2-12/-18**

The organisational embedding of risk and opportunity management is carried out by the risk management organisation established at the Group. The responsibility for operational risk management and for the risk management processes is borne by the divisions, corporate functions, organisational units and companies. They report on the concrete risks and opportunities at regular intervals to their superordinate units. Unexpectedly occurring material risks must be promptly reported. The information for reporting to the Board of Management, Audit Committee and Supervisory Board is passed on to corporate risk management by the business divisions.

The Group Risk Management Committee (GRMC) is responsible for ensuring the continuous improvement and evaluating the efficiency and effectiveness of the risk management system. The GRMC is composed of representatives from the Accounting & Financial Reporting, Legal Affairs, Compliance and Group Security units, as well as the members of the Board of Management of Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Mobility AG responsible for Finance, and is chaired by the members of the Board of Management of Mercedes-Benz Group AG responsible for Finance & Controlling, Mercedes-Benz Mobility, and Integrity and Legal Affairs. Corporate Audit contributes significant findings through the internal controlling and risk management system.

## **Dialogue with stakeholders**

##### **GRI 2-12/-16/-29**

The Mercedes-Benz Group attaches great importance to engaging in a dialogue with its interest groups. This dialogue enables it to look at its sustainability commitment from different angles, to identify and pick up on new trends and to exchange experiences. It also aims to engage in discussions of controversial topics at an early stage. The key concern for the Mercedes-Benz Group is to be part of a dialogue that is fruitful and productive for all parties involved.

The prerequisite is that the Mercedes-Benz Group knows its stakeholders. Stakeholders are individuals and organisations that have legal, financial, ethical or ecological claims on or expectations of a company. Whether an individual, organisation or group is a stakeholder of a company depends on the extent to which decisions of the company influence them or, conversely, the extent to which they can influence the company's decisions. Based on this, the Mercedes-Benz Group has identified customers, employees, investors and suppliers as its primary stakeholders. In addition, the Mercedes-Benz Group regularly exchanges views with civic bodies such as non-governmental organisations. The Group also maintains contact with associations, trade unions, the media, analysts, local authorities, people from the surrounding neighbourhood of the company's locations, and figures from the worlds of science and politics.

In order to implement dialogue with its stakeholders across the organisation, the Mercedes-Benz Group has defined clear responsibilities and communication channels for this process and established specific forms of dialogue. The various dialogue formats are initiated by experts from Integrity and Legal Affairs or other departments such as External Affairs (EA).

#### ↗ Dialogues and events

#### ↗ Memberships, associations and initiatives

The Mercedes-Benz Group makes use of various formats in order to engage in dialogue with relevant stakeholders. Among other things, it organises annual "Sustainability Dialogue" events and conducts stakeholder surveys as well as expert conferences and thematic exchanges – for example in the form of workshops or through the Advisory Board for Integrity and Sustainability. In addition, it monitors current public discussions and gathers information about related expectations by participating in sector-specific and cross-sector networks and initiatives. Studies and other scientific publications are also evaluated and internal media analyses undertaken. These measures help the Group to identify developments and the associated expectations in areas beyond the dialogue events that it has initiated at an early stage.

The Mercedes-Benz Group aims to strengthen trust in the Mercedes-Benz brand with innovative and significantly more sustainable solutions, as sustainability is one of the brand promises of Mercedes-Benz. It guides the Group as a key operating principle, not only in strategic decisions but also in direct customer contact. The aim is to inspire customers with respect to sustainability and make it tangible for them at every touchpoint. The Net Promoter Score (NPS) is a fixed element of the Mercedes-Benz Group's customer satisfaction measurement for the overarching evaluation of customer satisfaction: with this internationally recognised indicator, customers are asked how likely they are to recommend a company or a brand to people close to them. The Mercedes-Benz Group also uses the NPS as part of the remuneration component.

#### Sustainability Dialogue

An important instrument for implementing these goals is the communication with stakeholders in the form of the Sustainability Dialogue, which has been held annually in Stuttgart since 2008 and brings various stakeholder groups together with members of the Board of Management of Mercedes-Benz Group AG and executive management. The participants attend a range of workshops, where they discuss selected issues related to

### Exemplary instruments of the Stakeholder Management approach



#### Information

- Mercedes-Benz Sustainability Report and regional reports
- Group's website
- Employee portal and additional internal communication channels
- Press and public-relations work
- Blogs and social media
- Plant tours, receptions, Mercedes-Benz Museum
- Environmental declarations by the plants
- Capital market communication
- "Climate Policy Report"
- Sustainability rankings and ratings



#### Dialogue

- Annual Sustainability Dialogue (Germany/regions)
- Local dialogue with residents and municipalities
- Internal dialogue sessions on integrity and compliance
- Supplier Portal
- Involvement in sustainability initiatives and networks
- Specialist conferences on social topics and debates
- Topic- and project-related discussions
- Dialogue formats on future-oriented questions: think tanks, hackathons, idea competitions
- "The Sustainability Forum"
- Capital market events: capital market days, investor conferences, roadshows



#### Participation

- Stakeholder consultation in topic-related working groups
- Advisory Board for Integrity and Sustainability
- Peer review within the framework of sustainability initiatives such as the UN Global Compact and the Global Reporting Initiative

sustainability and work together to further develop their approaches. The experts responsible for specific topics take up the momentum generated by the participants and work together with the stakeholders to incorporate these ideas into their work. They then report on the progress achieved at the following year's event.

The Mercedes-Benz Group held the Sustainability Dialogue as a hybrid event in 2022. More than 200 external and internal participants in a total of seven working groups engaged in discussions of various topics both on-site in Sindelfingen and online and also participated in a public stakeholder dialogue.

In addition, organizational and thematic preparations were made for the Sustainability Dialogues in China and India scheduled for early 2023.

### **Advisory Board as an important driving force**

The Advisory Board for Integrity and Sustainability has been providing support for the company's sustainability work since 2012. The board's members are independent external specialists from the fields of science and business, as well as from civic organizations, and include experts who possess specialized knowledge regarding environmental and social policy, the development of transport, traffic and mobility, and human rights and ethical issues. The members of the Advisory Board support the Mercedes-Benz Group with constructive criticism on questions related to integrity and corporate responsibility.

The Advisory Board convenes several times a year in meetings that are chaired by the member of the Board of Management responsible for Integrity and Legal Affairs. One of these meetings specifically serves to share information with other members of the Board of Management and members of the Supervisory Board. As part of a Sustainable Strategy Week, the responsible managers from the various specialist units meet with the Advisory Board members to discuss the areas of action and enablers identified in the sustainable business strategy and also talk about targets, strategies, measures and the results achieved with these. The Advisory Board also holds regular meetings with managers and other employees to discuss specific topics. Two new working groups were established in the reporting year in order to strengthen this dialogue. The goal here is to

promote more extensive discussions on the topics of "Integrity and employees" and "Climate change mitigation and resource conservation". In 2022, the Advisory Board also addressed, among other things, the new [↳ Corporate Citizenship Strategy](#), the social dimension of sustainability and its impact on the Mercedes-Benz Group, and the topic of climate neutrality.

## **Sustainable investment**

The strong demand for ESG funds among institutional and private investors leads to a demand for more transparency on how [↳ ESG](#) factors are taken into account in asset management and investment decisions. At the same time, this offers companies an added opportunity to differentiate themselves in the competition for equity and debt capital by demonstrating a sustainable business strategy, ambitious goals and transparent ESG reporting along the entire value chain. A variety of reporting frameworks are now available to provide this evidence. For example, investors expect companies to publish reports conforming to standards such as those of the TCFD (Task Force on Climate-related Financial Disclosure) and the SASB ([↳ Sustainability Accounting Standards Board](#)). The [↳ International Sustainability Standards Board \(ISSB\)](#) also developed a global minimum standard for sustainability reporting in 2022, which is to be used from the 2023 reporting year. The extent of legal disclosure obligations is also increasing – for investors, for example, through the [↳ Sustainable Finance Disclosure Regulation \(SFDR\)](#) – for companies, for example, through the [↳ EU taxonomy](#), the Corporate Sustainability Reporting Directive (CSRD) and the European Sustainability Reporting Standards (ESRS). The ESG reporting is thus becoming increasingly more complex and demanding.

The external reporting of the Mercedes-Benz Group focuses on the reporting standards relevant to the Group's investors (including TCFD, SASB and GRI). Meanwhile, the Mercedes-Benz Group continuously monitors the way in which the ESG reporting requirements of its capital providers are evolving and reviews their implementation in its own reporting.

[↗ TCFD reference table](#)

[↗ SASB reference table](#)

## Financing the sustainable business strategy

The implementation of the Mercedes-Benz Group's sustainable business strategy requires a major amount of investment. For this reason, one of the Group's goals is to ensure that its securities are viewed by the capital market as a sustainable investment. To this end, the Mercedes-Benz Group maintains a continuous dialogue with players on the capital market as representatives of investors in equity and debt. Various platforms are used here. In 2022, the Mercedes-Benz Group presented this approach to investors and analysts at its first digital  **ESG conference** (Environmental, Social and Governance).

The Investor Relations & Treasury unit at Mercedes-Benz Group AG works closely together with the company's in-house sustainability departments and is also integrated into the relevant committees. This is how the Mercedes-Benz Group is responding to the fact that sustainable investment has become a central investment strategy — in particular for institutional investors, who set especially high standards of transparency for external reporting according to ESG criteria.

In the reporting year, Mercedes-Benz Group AG converted the existing  **credit line** of €11 billion into a sustainability linked loan (SLL). In this way, the company links its credit line to sustainability achievements in the area of climate change mitigation — for example, the global share of all-electric vehicles in the Mercedes-Benz fleet. The arrangement fee for the existing credit line is reduced if the Mercedes-Benz Group achieves the selected sustainability targets. With this transformation, the company also continues to implement its "Ambition 2039" in the area of sustainable financing.

## Ratings and green bonds

ESG rating agencies such as MSCI, Sustainalytics, ISS ESG and CDP are additional important players in the capital market and in the sustainability-oriented investment process. Today the rating and ranking results of most providers are made available to the public and serve as an additional source of information for many investors.

Among other things, the Mercedes-Benz Group has therefore been using the CDP framework for more than 15 years to disclose data on climate-related activities,

and once again reached the leadership category in the reporting year with an A rating. Since 2021, the Mercedes-Benz Group has also reported its water-related activities in the separate CDP Water Questionnaire and was able to achieve an B rating rating in the reporting year. In 2022, it once again received an A rating from MSCI. Sustainalytics continues to rank it strongly in its peer group of automobile manufacturers. The Group's ISS ESG rating once again corresponded to the best possible rating in the automotive sector (Prime Status C+).

The various specialist units of the Mercedes-Benz Group work closely together with the aim of providing the rating agencies with adequate information. The Group intends to continue the ongoing development of its external reporting, close any gaps and initiate internal change processes.

In 2020, the Group developed a Group-wide Green Finance Framework in order to position the Mercedes-Benz Group even more effectively as a sustainable company worthy of investment and to enable it to utilize ESG-based capital for its business development. It makes it possible for the Group to finance investment targeted at the development, production and customer financing of all-electric vehicles through bonds and loans, for example. The Mercedes-Benz Group has issued green bonds in September 2020 and March 2021. In November 2022, Mercedes-Benz Group issued its first green bond outside the European market as a green panda bond in China.

The framework is based on the Green Bond Principles (the voluntary process guidelines of the International Capital Market Association — ICMA) and the Green Loan Principles, which are the joint voluntary process guidelines of the Loan Market Association (LMA), and the Asia Pacific Loan Market Association (APLMA). It is planned to be developed to be consistent with the significant contribution to the environmental objective of climate change mitigation under the technical screening criteria of the EU taxonomy. In addition, the Mercedes-Benz Group strives for the certification with the highest rating - "Dark Green" - for the planned 2023 framework update from the respected Centre for International Climate and Environmental Research (CICERO).

 **Green finance second option**

## **Sustainable investment of pension funds**

The Mercedes-Benz Group operates as an investor itself when it invests the company's pension assets. ESG criteria are also playing an increasingly important role in this area.

For German pension assets, the following objectives have been defined for the consideration of ESG criteria: Creation of transparency in dealing with sustainability aspects, exploitation of opportunities from sustainable developments and the appropriate consideration of sustainability risks. For the majority of German pension assets the investments are made by asset managers to whom the Mercedes-Benz Group issues individual mandates. In coordination with the Investment Committees, the Mercedes-Benz Group pays, as part of its sustainability concept, increased attention to the consideration and transparency of sustainability aspects in the investment process. In addition, the risk and return aspects associated with sustainable investments are also taken into account. For liquid asset classes of the German pension assets, the Mercedes-Benz Group only works with investment managers who have signed the  UN Principles for Responsible Investment.

It also uses a negative list to exclude investing in companies and countries that do not fulfil the Group's core requirements. Furthermore, the Mercedes-Benz Group focuses on gradually integrating sustainability aspects — via benchmarks or sustainability performance indicators, for example — into its mandates. In 2022, the Mercedes-Benz Group also further expanded its ESG-themed investments and took its first steps to create an internal reporting system for various sustainability metrics for its German pension assets.

The measures implemented as part of the Group's sustainability concept are regularly assessed and adapted to current developments. Sustainability is also one of the investment principles of Daimler Pensionsfonds AG. In other countries, the Group takes country-specific requirements into account.

## **Tax obligation**

**GRI 3-3 GRI 207-1/-2/-3**

The Mercedes-Benz Group views itself as a responsible company that endeavours to meet all of its global tax

obligations and use public funding responsibly. In this way, the Group can also fulfil its social and ethical responsibilities.

The Group's tax strategy operates according to the following principles in particular:

- With efficient, high-quality and reliable expertise, processes, systems, methods and controls, the Mercedes-Benz Group wants to ensure that the tax obligations of the Group companies are met and integrity standards are maintained.
- In line with the principle of being a good corporate tax citizen (i.e. fulfilling its responsibility as a taxpayer), the Mercedes-Benz Group conducts legal, proactive and non-aggressive tax planning activities on the basis of economic considerations ("tax follows business"). The Mercedes-Benz Group also strives to work cooperatively, transparently and constructively with the tax authorities. In this process, it maintains its legal standpoints and defend its interests wherever it believes such actions are appropriate and legitimate.

The Group tax strategy drawn up by the board of management of the Mercedes-Benz Group AG defines the limits of action here, and this strategy is further specified and implemented by means of organizational and content-related policies, guidelines and instructions. The tax strategy is regularly reviewed for appropriate adjustments.

The tax policies define the responsibilities, tasks and obligations of those individuals at the Group who deal with tax issues, and also contain specific provisions for ensuring that legal requirements are met, thus raising the awareness of tax issues among employees. Management is kept informed about relevant tax issues by means of monthly reports and regular communications, as well as when required. Moreover, it is involved in compliance processes:

- Regular communication between CFO and Head of Taxes
- Regular information to the Supervisory Board on risks and opportunities as well as current regulatory issues

The Code of Conduct stipulates that all intentional violations of external and/or internal tax guidelines must be reported and investigated. The same applies to any failure to make corrections to procedures performed in an erroneous manner, as outlined in our internally valid Treatment of Violations Policy.

#### ↗ The whistleblower system BPO

The Mercedes-Benz Group has established a Tax Compliance Management System (Tax CMS) in order to ensure effective tax compliance throughout the Group. The Tax CMS is a separate sub-unit of the general intra-Group Compliance Management System. The Tax CMS also operates an active tax-risk management system that is consistently applied throughout the Group in order to monitor and check whether tax obligations are being fulfilled, and also to support those responsible for ensuring such fulfilment. Another goal here is to identify and reduce tax risks at the Group, and thus the associated personal risks that may be faced by the employees active in this area. The system includes numerous measures — for example, continuous monitoring of tax risks and the incorporation of tax risk issues into the internal control system and the Group-wide risk management process in line with the company's risk management policy.

The Mercedes-Benz Group did not become aware of any criminally relevant material violations of tax laws during the reporting year.

#### ↗ Compliance management

# EU taxonomy

One of the important goals of the Commission Action Plan on Financing Sustainable Growth in the context of the European Green Deal is to divert capital flows to sustainable investments. This is also the logic behind the EU taxonomy regulation (EU 2020/852) that came into force in mid-2020. This regulation governs the establishment of a standardized and legally binding classification system that defines which economic activities in the EU are considered to be aligned with the taxonomy — and thus environmentally sustainable with regard to the six environmental objectives established by the regulation.

- Climate change mitigation
- Climate change adaptation
- Sustainable use and protection of water and marine resources
- Transition to a  **circular economy**
- Pollution prevention and control
- Protection and restoration of biodiversity and ecosystems

Companies that are required to publish a Non-Financial Declaration must also comply with the taxonomy regulation. According to Article 8 of the taxonomy regulation, the taxonomy-aligned proportions of revenue, capital expenditure and operating expenditure accounted for by environmentally sustainable economic activities are to be reported on an annual basis.

## Taxonomy eligibility

Taxonomy eligibility is assessed in an initial step. For an economic activity to be taxonomy-eligible, that activity must be mentioned and explained in further detail in the delegated acts for the taxonomy regulation. Descriptions of relevant activities and technical screening criteria are currently available as delegated act (EU 2021/2139) for the first two environmental objectives (climate change mitigation and climate change adaptation). Climate change mitigation in particular is to be

regarded as the relevant environmental objective for the Mercedes-Benz Group.

On the basis of the descriptions contained in the delegated act relating to climate change mitigation, the following taxonomy-eligible economic activities have been identified for the Group:

- Economic activity 3.3: encompasses manufacture of low-carbon transport technologies in connection with the production of cars and vans
- Economic activity 6.5: encompasses leasing and financing of low-carbon cars and vans
- Economic activity 6.6: encompasses leasing and financing of low-carbon trucks

In a final Interpretation Document that the European Commission published on 6 October 2022, the Commission stated that the term “low-carbon” only relates to the assessment of taxonomy alignment within the framework of the technical screening criteria and is not relevant for reporting on taxonomy eligibility. With regard to automakers in particular and as an example, the document shows that the activity “manufacture of low-carbon vehicles” also includes vehicles with combustion engines. For the Mercedes-Benz Group, this clarification by the European Commission means that the manufacture of all Group vehicles is reported as taxonomy-eligible.

Economic activity 6.5 relates to leasing and sales financing of all vehicles purchased from third parties.

Economic activity 6.6 mainly comprises the continuing Daimler Truck portfolio at Mercedes-Benz Mobility.

Economic activities in certain energy sectors as specified in the complementary delegated act to climate objectives exist at Mercedes-Benz Group only to an immaterial extent and exclusively serve the operation of economic activity 3.3.

## Taxonomy alignment

In a further step, taxonomy alignment must be assessed for taxonomy-eligible economic activities. Only taxonomy-eligible activities can be considered as environmentally sustainable activities, or as being taxonomy-aligned, provided they meet certain technical screening criteria. Here, the fulfilment of certain technical screening criteria with regard to the relevant economic activities must make a substantial contribution to an environmental objective defined by the taxonomy regulation and, on the basis of defined “do no significant harm criteria” (DNSH criteria), also exclude the possibility of significant interference with another environmental objective. It must also be ensured that minimum standards are met with regard to issues such as upholding human rights or combating corruption (minimum safeguards).

### Fulfilment of a substantial contribution to the climate change mitigation environmental objective

According to the delegated act, all vehicles complying with the limit value of 50g CO<sub>2</sub>/km per vehicle (in accordance with the  WLTP) as defined in the technical screening criteria make a substantial contribution to the climate change mitigation environmental objective. At Mercedes-Benz Group all-electric vehicles as well as the majority of plug-in hybrid vehicles are below this threshold. These vehicles are referred hereafter to as “low-carbon vehicles”.

### Exclusion of the possibility of significant interference on the basis of the “do no significant harm criteria”

Compliance with DNSH criteria is used in a second step to demonstrate that the economic activities in question do not significantly interfere with other environmental objectives.

In connection with economic activity 3.3, the fulfilment of these criteria was basically assessed at the level of those consolidated production sites where low-carbon vehicles or associated components are currently being manufactured or will be manufactured in the future. In connection with economic activity 6.5, the analysis of the criteria has to be performed on the basis of the respective low-carbon vehicles.

### Climate change adaptation.

A climate risk assessment was conducted for relevant production sites in order to analyse physical climate risks on the basis of significant climate-related hazards. Adaptation measures were then evaluated on the basis of the identified risk exposure. The analysis took into account recognized scenarios from the Intergovernmental Panel on Climate Change (IPCC), including one scenario that depicts the biggest physical impacts. Various time horizons (e.g. 2040) and a trend analysis were examined. The verification of the DNSH criteria for economic activity 6.5 is essentially based on the consideration of relevant conditions of use and the environment, such as heat and cold requirements in the context of vehicle development and testing.

### Sustainable use and protection of water and maritime resources

With regard to the production of low-carbon vehicles, the Mercedes-Benz Group ensures fulfilment of the DNSH criteria mainly through the use of established environmental management systems and internal environmental risk assessments (environmental due diligence process). The company has established environmental management systems at its production sites around the world in accordance with EMAS or ISO 14001. These environmental management systems are certified at regular intervals. As part of the internal environmental risk assessments, consolidated production sites are evaluated according to a number of factors, including those relating to water quality. Recommendations for minimizing risks are then drawn up and the progress is appropriately monitored. The Group also uses external data sources to identify sites that are subject to risks regarding water scarcity.

### Transition to a circular economy

With regard to economic activity 3.3, the  EU taxonomy regulation requires an assessment and, if possible, the application of measures that promote the transition to a circular economy, including the use of secondary materials, high durability of products and waste management in production. When developing products, the Mercedes-Benz Group considers the concept of circular economy from the very start and has set itself the overarching goal of increasing its use of secondary materials. In line with the relevant provisions, and in accordance with ISO 22628, 85% of the materials used

in Mercedes-Benz cars and light commercial vehicles can be recycled and 95% can be reused or recovered. Among other things, this complies with the requirements of economic activity 6.5.

The Mercedes-Benz Group is intensifying its efforts to use lower volumes of raw materials and other materials at its production sites as well. In accordance with the [waste hierarchy](#), the company's primary goal is to avoid waste. For its production sites worldwide, the Mercedes-Benz Group has set reduction targets for factors such as total waste volume and waste volume for disposal per vehicle. Waste management is also a component of the Group's internal environmental risk assessments.

### **Pollution prevention and control**

With regard to the DNSH criteria, the EU taxonomy for economic activity 3.3 under Annex C of the delegated act relating to climate change mitigation refers to the concept of avoiding the manufacturing, placing on the market or use of restricted substances subject to current European legislation on chemicals, as well as of other groups of substances that go beyond that (defined under sections f) and g) in the mentioned annex). However these requirements contain an exemption rule which is applied by Mercedes-Benz Group. With regard to the regulation of chemicals, the Group has established internal guidelines and approval and monitoring procedures for production-related and product-related activities. The Mercedes-Benz Group has also defined specifications for substitution analyses, and thus for the use of less critical hazardous substances.

For economic activity 6.5, the DNSH criteria refer to compliance with various product-related European regulations and directives on, among other things, emission limits and rolling resistance coefficients – as well as rolling noise requirements for tyres. Only all-electric vehicles in the area of application of those EU laws are currently considered in the taxonomy-aligned scope of economic activity 6.5.

In due consideration of a further FAQ document of the EU Commission (published as a Draft Commission Notice on December 19, 2022) only tyres corresponding to the two highest classes for rolling resistance

coefficients available on the market and at the same time the highest class for external rolling noise available on the market fulfill DNSH requirements for the respective vehicles.

For the analysis the time of market placement was used. For the assessment of the respective classes available on the market, the data of the European Product Database for Energy Labelling (EPREL) shall be used. For vans, such an assessment of tyre classes available on the market for the respective vehicles according to EPREL database has been performed. For passenger cars, the theoretical two highest fuel efficiency classes and the highest external rolling noise class were analyzed without considering EPREL data. On this basis, the entire vehicle portfolio of all-electric vehicles without differentiating between economic activities and therefore without differentiating between sales and leasing vehicles has been analysed and assessed. Thus a proportionate share of passenger cars with the respective highest tyre classes has been determined.

### **Protection and restoration of biodiversity and ecosystems**

To demonstrate the requirements for economic activity 3.3 with regard to the environmental objective of biodiversity and ecosystems, ecologically sensitive or protected areas in the neighbourhood are documented and taken into account as part of the internal environmental risk assessments. Furthermore, examination of the surrounding areas is part of the location planning process.

### **Fulfilment of minimum safeguards**

An economic activity can only be classified as environmentally sustainable within the meaning of the taxonomy if it is also conducted in accordance with certain minimum standards that are based on international frameworks. Here, Article 18 of the taxonomy regulation references the [OECD Guidelines for Multinational Enterprises](#), the United Nations Guiding Principles on Business and Human Rights (including the basic principles and rights from the eight core conventions defined in the International Labour Organisation's Declaration on Fundamental Principles and Rights at Work), and the International Bill of Human Rights. The taxonomy regulation itself does not further specify the standards. The report published by the Platform on Sustainable Finance in October 2022 (Final Report on Minimum

Safeguards) assists companies with the interpretation of the scope and application of the minimum standards. This report forms the foundation for the application of minimum standards and the associated reporting at Mercedes-Benz Group. Key issue areas here are human rights and labour rights, the prevention of corruption and the promotion of fair competition , and responsible tax practices. The verification of compliance here basically involves demonstrating the existence of suitable due diligence processes on Group Level and

the fact that no judicial rulings in the final instance have been made due to serious violations in the aforementioned areas.

#### ↗ Social compliance

↗ Occupational Health and safety

↗ The Compliance Management System

↗ Combating corruption

↗ Promoting fair competition

↗ Tax obligation

## Revenue

### Revenue<sup>1</sup>

Economic activities	Absolut Revenue <sup>1</sup> in Mio. EUR	Proportion of Revenue <sup>1</sup> in %	Substantial contribution criteria				Taxonomy aligned proportion of Revenue 2022 <sup>1</sup>	Category: Enabling activity (E)/ Transitional activity (T)					
			Climate change mitigation	Climate change adaptation	DNSH-criteria ("Does Not Significantly Harm")	Minimum safeguards							
<b>A. TAXONOMY-ELIGIBLE ACTIVITIES</b>													
<b>A.1 Environmentally sustainable activities (Taxonomy-aligned)</b>													
3.3 Manufacture of low-carbon technologies for transport	14,660	10	100	0	Yes	Yes	10	E					
6.5 Transport by motorbikes, passenger cars and light commercial vehicles	334	0	100	0	Yes	Yes	0	T <sup>2</sup>					
<b>Revenue of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>	<b>14,994</b>	<b>10</b>	<b>100</b>	<b>0</b>			<b>10</b>						
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>													
3.3 Manufacturing of low-carbon technologies for transport	108,206	72											
6.5 Transport by motorbikes, passenger cars and light commercial vehicles	22,773	15											
6.6 Freight transport services by road	854	1											
<b>Revenue of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)</b>	<b>131,833</b>	<b>88</b>											
<b>Total (A.1 + A.2)</b>	<b>146,827</b>	<b>98</b>											
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>													
<b>Revenue of Taxonomy-non-eligible activities (B)</b>	<b>3,190</b>	<b>2</b>											
<b>Total A + B</b>	<b>150,017</b>	<b>100</b>											

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

2 Only the share attributable to our Hybrid electric vehicles is a transitional activity.

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

The sections below 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. This prevents double counting.

The calculations for the key figures are based on the Consolidated Financial Statements in accordance with IFRS. Due to an exemption granted by the EU, only the proportions of taxonomy-eligible economic activities were obliged to be reported in the previous year. The provision of comparative information is not yet legally required in the reporting year.

### **Taxonomy eligibility of revenue**

For the share of taxonomy-eligible revenue (under A in the table Revenue), the taxonomy-eligible revenue is considered in relation to the total revenue of the Group.

In this process, the denominator takes into account all the revenue generated at the consolidated companies that are to be included in the calculations. The revenue, as disclosed in the consolidated statement of income, amounted to €150,017 million in the reporting year.

#### **⌚ Note 5 Revenue, AR 2022**

The numerator was calculated by examining this revenue to determine how much of it was generated in connection with manufacturing or the leasing or financing of vehicles. This applies to almost all of the revenue generated by the Mercedes-Benz Group. Excluded from this are in particular revenues from the sale of used vehicles, which Mercedes-Benz group has purchased from third parties.

### **Taxonomy alignment of revenue**

In order to calculate the taxonomy-aligned proportion of economic activities (under A1 in the table Revenue), revenues were examined to determine the extent to which they were generated with low-carbon vehicles in order to assess whether a substantial contribution had

been made to climate change mitigation. Compliance with DNSH criteria was also assessed.

For the major proportion of the revenue, in particular from the new and used vehicle business and leasing and sales financing activities, a direct attribution was made of the revenue accounted for by low-carbon vehicles. With regard to other revenue components, especially revenue from the spare parts business and service and maintenance contracts, or attribution of discounts granted for large procurement volumes, it is not possible to directly assign revenue to low-carbon vehicles. In these cases, suitable allocations were therefore used for the various revenue components. These classifications are based on current or historical vehicle sales data for the fleet that is currently on the market and data on production volumes.

By the end of this decade, the Mercedes-Benz Group intends to be all-electric wherever market conditions allow. The strategic step to “Electric only” will accelerate the transformation of the company to an all-electric and software-driven future. In line with this strategy and the associated planned sales figures for low-emission vehicles, the Mercedes-Benz Group expects the share of the revenue generated by low-carbon vehicles to rise significantly in the years ahead. Further information can be found in the Environmental issues chapter.

#### **↗ Climate Protection**

### **Taxonomy eligibility of capital expenditure**

For the share of taxonomy-eligible capital expenditure (under A in the table Capital Expenditure), the taxonomy-eligible capital expenditure is considered in relation to the total relevant capital expenditure of the Group.

Here, the denominator of the key figure for capital expenditure is calculated by taking into account all additions to intangible assets, property, plant and equipment, equipment on operating leases and additions to rights-of-use assets as defined in IFRS 16, including the additions to the named assets within the framework of corporate acquisitions. Equipment on operating leases only takes into account vehicles acquired by a dealer from outside the Group. Goodwill acquired is not taken into account here.

## Capital Expenditure

### Capital Expenditure<sup>1</sup>

Economic activities	Absolut CapEx <sup>1</sup>	Proportion of CapEx <sup>1</sup>	Substantial contribution criteria					Taxonomy aligned proportion of CapEx 2022 <sup>1</sup>	Category: Enabling activity (E)/ Transitional activity (T)					
			Climate change mitigation	Climate change adaptation	DNSH-criteria ("Does Not Significantly Harm")	Minimum safe-guards								
			in %	in %	Yes/No	Yes/No								
<b>A. TAXONOMY ELIGIBLE ACTIVITIES</b>														
<b>A.1 Environmentally sustainable activities (Taxonomy-aligned)</b>														
3.3 Manufacture of low-carbon technologies for transport	3,732	20	100	0	Yes	Yes	20	E						
6.5 Transport by motorbikes, passenger cars and light commercial vehicles	325	2	100	0	Yes	Yes	2	T <sup>2</sup>						
<b>Capital Expenditure of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>	<b>4,057</b>	<b>22</b>	<b>100</b>	<b>0</b>			<b>22</b>							
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>														
3.3 Manufacturing of low-carbon technologies for transport	4,092	22												
6.5 Transport by motorbikes, passenger cars and light commercial vehicles	10,220	56												
<b>Capital Expenditure of taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)</b>	<b>14,312</b>	<b>78</b>												
<b>Total (A.1 + A.2)</b>	<b>18,369</b>	<b>100</b>												
<b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>														
<b>CapEx of Taxonomy-non-eligible activities (B)</b>	<b>0</b>	<b>0</b>												
<b>Total A + B</b>	<b>18,369</b>	<b>100</b>												

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

2 Only the share attributable to our Hybrid electric vehicles is a transitional activity.

If a divestment is planned, capital expenditure on non-current assets is only taken into account until the point in time at which they were first classified as available for sale or disbursement in accordance with IFRS 5. The relevant additions to the assets to be taken into account amounted to €18,369 million in the 2022 reporting year.

**Notes 11, 12 and 13 in the Notes to the Consolidated Financial Statements, AR 2022**

According to the aforementioned interpretation document issued by the European Commission, which was finally published on 6 October 2022, the definition of an economic activity is characterized by the achievement of an output. In line with the Mercedes-Benz Group's business model, the numerator was therefore determined by examining whether capital expenditure is made in connection with the manufacturing of vehicles or the implementation of transport solutions for people and goods. This applies to nearly all of our investments.

**Taxonomy alignment of capital expenditure**

In order to calculate the taxonomy-aligned proportion of economic activities (under A1 in the table Capital Expenditure), capital expenditure was examined to determine the extent to which it was associated with low-carbon vehicles in order to assess whether a substantial contribution had been made to climate change mitigation. Compliance with DNSH criteria was also assessed.

The capital expenditure items shown below are included as an aggregation across the various economic activities:

**Capital expenditure in 2022**

	In the numerator in the denominator (total capital expenditure)	In the numerator in the denominator (taxonomy-compliant capital expenditure) <sup>1</sup>	Taxonomy-aligned capital expenditure in % <sup>1</sup>
Tangible fixed assets	3,421	1,507	44
Intangible assets	3,480	1,874	54
Rights of use (IFRS 16)	923	391	42
Rented items	10,545	285	3
<b>Total</b>	<b>18,369</b>	<b>4,057</b>	<b>22</b>

<sup>1</sup> The key figures were audited in order to obtain limited assurance.

The size of the share of taxonomy-aligned expenditure of total capital expenditure is mainly impacted by the additions to the leased objects. As a result, this share only partially reflects our investments in sustainable products for the future.

A separate additional review of the taxonomy-aligned investments in intangible assets (mainly in capitalized research and development expenditure) and property, plant and equipment of the Mercedes-Benz Group shows much higher shares of taxonomy-eligible investments.

On the basis of our "electric only" strategy, the Mercedes-Benz Group intends to further increase these investments in the coming years.

All of the capital expenditure at the Mercedes-Benz Group included in the numerator relates to assets or processes in the context of already existing technologies and in connection with already existing taxonomy-aligned economic activities. For most of the capital expenditure relating to the industrial business, a direct attribution was made to all-electric or low-carbon hybrid vehicle projects. In the case of capital expenditure in assets that are used to produce both vehicles with combustion engines and low-carbon vehicles, suitable allocations based on planned vehicle sales figures for the respective model series or vehicle platforms were used. Capital expenditure that is not directly related to the manufacturing process was allocated on the basis of the planned sales figures for low-carbon vehicles. With regard to financial services, it is possible to match the additions to the leased products directly to low-carbon vehicles.

## Operating expenditure

### Operating expenditure<sup>1</sup>

Economic activities	Substantial contribution criteria						Taxonomy aligned proportion of Operating Expenditure 2022 <sup>1</sup>	Category: Enabling activity (E)/ Transitional activity (T)		
	Absolut Operating Expenditure <sup>1</sup>	Proportion of Operating Expenditure <sup>1</sup>	Climate change mitigation	climate change adaptation	DNSH-criteria ("Does Not Significantly Harm")	Minimum safe- guards				
	in Mio. EUR	in %	in %	in %	Yes/No	Yes/No				
<b>A. TAXONOMY ELIGIBLE ACTIVITIES</b>										
<b>A.1 Environmentally sustainable activities (Taxonomy-aligned)</b>										
3.3 Manufacture of low-carbon technologies for transport	2,340	35	100	0	Yes	Yes	35	E		
<b>Operating Expenditure of environmentally sustainable activities (Taxonomy-aligned) (A.1)</b>	<b>2,340</b>	<b>35</b>	<b>100</b>	<b>0</b>			<b>35</b>			
<b>A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)</b>										
3.3 Manufacturing of low-carbon technologies for transport	4,324	65								
<b>Operating Expenditure of Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)</b>	<b>4,324</b>	<b>65</b>								
<b>Total (A.1 + A.2)</b>	<b>6,664</b>	<b>100</b>								
<hr/> <b>B. TAXONOMY-NON-ELIGIBLE ACTIVITIES</b>										
<b>Operating Expenditure of Taxonomy-non-eligible activities (B)</b>	<b>0</b>	<b>0</b>								
<b>Total A + B</b>	<b>6,664</b>	<b>100</b>								

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

### **Taxonomy eligibility of operating expenditure**

For the share of taxonomy-eligible operating expenditure (under A in the table Operating Expenditure), the taxonomy-eligible operating expenditure is considered in relation to the relevant operating expenditure of the Group.

The operating expenditure to be taken into account in the denominator corresponds to a figure that was exclusively calculated within the framework of taxonomy reporting. These operating expenditure include non-capitalized research and development expenditure and expenses from short-term leasing agreements. In addition, expenditure from building renovation measures and certain maintenance and repair expenses (basically labour and material costs as well as purchased services) relating to property, plant and equipment in accordance with the delegated act specifying Article 8 of the taxonomy regulation are included. These components of the relevant operating expenditure were collated exclusively from our manufacturing companies on the basis of materiality considerations. The operating expenditure at the Group companies that is to be taken into account is included, with the exception of companies that have been separately disclosed as discontinued operations in the statement of income.

In a manner similar to the approach taken for capital expenditure, the relevant operating expenditure was also examined here for the determination of the numerator on the basis of the materiality considerations mentioned above to determine whether they are related to the manufacture of vehicles. This applies to nearly all operating expenditure.

### **Taxonomy alignment of operating expenditure**

In order to calculate the taxonomy-aligned proportion of economic activities (under A1 in the table Operating Expenditure), operating expenditure was examined to determine the extent to which it was associated with low-carbon vehicles in order to assess whether a substantial contribution had been made to climate change mitigation. Compliance with DNSH criteria was assessed.

The non-capitalized research and development expenditure can mostly be directly incorporated into the calculation of the numerator on the basis of its allocation to all-electric or low-carbon hybrid vehicle projects. Appropriate allocations based on anticipated future sales figures of the low-carbon share of the model series or the vehicle platform were used for research and development expenditure that cannot be directly allocated (model series or vehicle platforms that include  plug-in hybrids as well as purely combustion engine vehicles). It was also not possible to directly match the other components of relevant operating expenses to low-carbon vehicles. The inclusion in the numerator is based on suitable allocations of current production volumes.



Integrity and compliance

## Materiality and goals

GRI 3-3

### Targets

### Target horizon

**With its integrity activities, the Mercedes-Benz Group pursues the following central goals:**

- Minimise risks through knowledge of and compliance with the Integrity Code
- All employees and managers behave and act in an ethical and responsible manner
- Exchange and dialogue on current integrity priorities
- Feedback from integrity analyses is incorporated into measures designed to strengthen the culture of integrity

Ongoing

**With its compliance activities, the Mercedes-Benz Group particularly pursues the following central goals:**

- Respect and uphold human rights
- Comply with anti-corruption regulations
- Engage in and promote fair competition
- Compliance of products with technical and regulatory requirements
- Observe data protection laws
- Comply with all applicable embargoes and sanctions
- Prevent money laundering and terrorist financing

Ongoing

Companies only stay successful if their actions are ethical and legally responsible. This is especially the case during times of upheaval and change like those that companies are currently experiencing. Hence, integrity and compliance are very important to the Mercedes-Benz Group.

Integrity is at the foundation of the business activities of the Mercedes-Benz Group. For the Group, ethical behaviour means doing the right thing. This includes observing laws, aligning activities with common principles and following the Group's inner compass.

# Integrity

## Strategy and concepts

### A corporate culture of integrity

The automotive industry is in a state of radical change. New fields of business are developing and new technologies are raising new questions – both ethical and legal. Moreover, the COVID-19 pandemic has led to profound changes all over the world. In such times of change and uncertainty, value-based action matters more than ever.

The Mercedes-Benz Group will remain successful in the long run only if it lives up to its economic, social and environmental responsibility. Stakeholders also expect this from the Group.

That's why integrity is a central element of the Mercedes-Benz Group corporate culture and an enabler that forms an integral part of the company's sustainable business strategy. For the Group, this involves more than just obeying laws and regulations. The Mercedes-Benz Group also aligns all its actions with shared principles, which in particular include fairness, responsibility, respect, openness and transparency.

### Integrity in daily business activities

#### GRI 2-23/-24

At the Mercedes-Benz Group, integrity, compliance and legal affairs are combined into a single Board of Management division. The "Integrity and Legal Affairs" division supports all corporate units in their efforts to embed these topics in daily business activities.

The Integrity Management & Corporate Responsibility unit works to promote and enhance integrity within the Mercedes-Benz Group and create a shared understanding of integrity. The goal is to avoid possible risks that can arise due to unethical behaviour and thus to contribute to the company's long-term success. The Head of Integrity Management & Corporate Responsibility reports directly to the member of the Board of Management responsible for Integrity and Legal Affairs.

### Corporate principles and the Integrity Code

#### GRI 2-23/-24

The Mercedes-Benz Group encourages and enables its employees to consistently uphold its corporate principles. [The Integrity Code](#), which is valid throughout the Group, provides them with guidance because it serves as the shared standard of values, defines the guidelines for all conduct and helps the company make the right decisions.

The Integrity Code is binding on all employees of the Mercedes-Benz Group and the Group companies. Employees from a variety of units all over the world helped to formulate the Integrity Code. It is available in ten languages and includes, among other things, regulations concerning corruption prevention measures, upholding human rights, data management and compliance with technical product requirements. Employees can view the Integrity Code on the employee portal, along with details on how it should be applied and other key information such as FAQs, points of contact and contact persons.

The Mercedes-Benz Group has also formulated a special set of requirements for managers in the Integrity Code. In particular, it expects managers to serve as role models through their ethical behaviour and thus offer guidance for employees.

The key element of the Integrity Code is represented by five principles, which provide orientation and are to be actively applied by all employees:

1. The Mercedes-Benz Group is profitable and committed to people and the environment.
2. The Mercedes-Benz Group acts responsibly and respects the rules.
3. The Mercedes-Benz Group addresses issues openly and stands for transparency.

4. Fairness and respect provide the foundation of collaboration.
5. The Mercedes-Benz Group practises diversity.

The Mercedes-Benz Group maintains an exchange of knowledge and open dialogue with its employees to ensure that integrity remains anchored in day-to-day business in the long term. It also regularly addresses the topics of integrity, compliance and legal affairs in its internal media. [During the reporting year, the Group revised the content of the Code of Conduct to include topics such as animal welfare issues. The revised Code of Conduct was communicated to employees in early 2023.](#)

## Measures

### Information, dialogue and training

#### **GRI 2-26**

The Mercedes-Benz Group established its Infopoint Integrity in 2015 in order to promote a culture of integrity at the company. Infopoint Integrity is the central point of contact for questions concerning ethical behaviour. Infopoint Integrity works together with specialists including experts in the fields of legal and HR issues, data protection, compliance, diversity and sustainability. It either provides direct support or connects employees with the appropriate contact partners.

[During the reporting year, the Mercedes-Benz Group restructured cooperation and activities in the Integrity Network. The Integrity Network is made up of representatives from the business units and serves as a shared communication platform, with the aim of embedding integrity in everyday business life. The focus in 2022 was on establishing this realignment. The Integrity Management controls the Integrity Network and provides the representatives with content, tools and dialogue formats as needed.](#)

The Integrity Network met in July 2022 in the context of the Annual Integrity Meeting – with representatives of the Board of Management and the business units, among others. This event also served as the kick-off for the “Integrity Experience”. This is the name given to a package of measures developed by Integrity Management in collaboration with the business unit

Production & Supply Chain Management. The aim of the Integrity Experience is to support and promote integrity in the business units. The measures are modular and can be individually tailored. The building blocks for various integrity topics such as trust, error culture and speak-up are designed to help employees reflect on their own actions and can be linked to the existing culture and transformation initiatives in the respective business units. The Integrity Experience is scheduled to run at least until the end of 2023. In addition, the Mercedes-Benz Group offers new formats for network representatives. This includes, for example, the “Integrity Network Exchange”, where members can share their experiences, knowledge and practical examples via a digital platform. Employees can find out about the activities of this network on the employee portal in the “Integrity Network Community” and sign up for activities.

Employees can also access the Integrity Toolkit via the employee portal. The Toolkit contains formats for dialogue events, tools for self-reflection, case studies and further information about the topic of integrity.

The Group sets great particular emphasis on direct discussions, and once again conducted a variety of dialogue events with employees at all levels of the hierarchy and with external stakeholders. These dialogue events were conducted virtually because of the protective measures in force due to the Covid-19 pandemic.

In addition, the employees in administrative areas at Mercedes-Benz Group AG and Group companies regularly complete a mandatory web-based training course about integrity that is based on the Integrity Code. Because managers serve as role models, they perform an especially important task with regard to compliance, integrity, legal matters and sustainability.

In order to help them as much as possible to carry out this role, the training programme also includes a special mandatory management module.

[\*\*↗ Integrity and compliance training programme 2022 – web-based training\*\*](#)

## Employee survey

The results of the 2021 employee survey on Integrity & Compliance have been incorporated into various follow-up measures. The managers of the Mercedes-Benz Group are responsible for the implementation. To support them in their task, the Integrity Management & Corporate Responsibility unit offered webinars in the reporting year. These webinars presented the results of the survey, provided more detailed explanations and featured tools for possible follow-up activities.

The culture of integrity within the Mercedes-Benz Group is to be reassessed in 2023.

## Effectiveness and results

### Effectiveness of the management approach

**GRI 3-3**

The success of the Mercedes-Benz Group largely depends on a permanent commitment to integrity and is part of the foundation of the sustainable business strategy. The Integrity Management & Corporate Responsibility unit, as an advisor and impulse generator in the business units, strengthens individual responsibility with regard to integrity. Insights into the integrity activities in the various business units are provided by the representatives of the Integrity Network in the form of half-yearly reports. The development progress of the "Integrity Experience" as an overarching measure is also visible there. The results and findings are channelled into further committees.

The Mercedes-Benz Group works consistently on its understanding of integrity, develops it further on an ongoing basis and regularly reviews itself. An important indicator here is the feedback from the Integrity Network.

Since 2012, the Group's own integrity management has been intensively monitored by the external  **Advisory Board for Integrity and Sustainability** and developed further on the basis of its input.

## Results

With the realignment of the Integrity Network in the reporting year, the personal responsibility with regard to integrity was strengthened in the business units. The digital platforms initiated by Integrity Management were well received by the network partners, and the opportunities for mutual exchange and sharing of practical examples were increasingly used.

Mercedes-Benz Corporate Audit regularly conducts audits in various Mercedes-Benz entities worldwide. Corporate Audit works in accordance with the professional standards and the code of ethics of the Institute of Internal Auditors (IIA). Accordingly, the audits of Corporate Audit also take integrity aspects into account.

# Compliance management

## Strategy and concepts

### Value-based compliance management

GRI 2-25 GRI 3-3

Value-based compliance is an indispensable part of the Mercedes-Benz Group's daily business activities and is firmly embedded in its corporate culture. The company is strongly committed to responsible conduct. It expects its employees to comply with laws, regulations and voluntary self-commitments. The Mercedes-Benz Group has also laid down these expectations in binding form in its [Integrity Code](#).

Through its [Compliance Management System \(CMS\)](#), the Mercedes-Benz Group aims to promote compliance with laws and policies at the company. The necessary measures are defined by the compliance and legal organizations in a process that also takes the company's business requirements into account in an appropriate manner.

### Main objectives for compliance management

How the Mercedes-Benz Group approaches its priority objectives, which laws and directives it uses as a guide and which specific measures it implements are described below:

#### Combating corruption

GRI 3-3 GRI 205-1/-2/-3

The Mercedes-Benz Group has committed itself to fighting corruption — because corruption undermines fair competition and thereby harms it and society. The Mercedes-Benz Group's corruption prevention measures extend beyond compliance with national laws and also encompass the guidelines from the [OECD Convention on Combating Bribery of Foreign Public Officials in International Business Transactions \(1997\)](#) and the [United Nations Convention against Corruption \(2003\)](#).

As a founding member of the [UN Global Compact](#), and in accordance with one of its ten principles, the Mercedes-Benz Group takes steps to actively combat corruption around the world.

[Progress report UN Global Compact](#)

The Corruption Prevention Compliance Programme at the Mercedes-Benz Group is based on the [Group-wide Content Management System \(CMS\)](#). An important element of this programme is the integrated risk assessment. In assessing potential risks, the Group takes into account both internal information, such as an entity's business model, and external information such as the Corruption Perceptions Index of Transparency International. The Group sees increased corruption risks in the area of sales activities in high-risk countries. In these areas, the Mercedes-Benz Group implements targeted measures to minimise risks.

The results of the risk assessment serve as the basis for implementing targeted corruption prevention measures that are oriented toward the risk faced by the unit in question. These measures aim to prevent corruption in all business activities, for example, by critically evaluating business partners and transactions (with a risk-based approach) and interacting with authorities and public officials in a particularly sensitive manner. In this way, the Group seeks to allay any possible suspicion of bribery or corruption from the very start.

The management of each Group company is responsible for implementing and supervising the measures. In this task, the management team cooperates closely with the specialist units within the Integrity and Legal Affairs division. Mercedes-Benz Group AG monitors the activities of the management teams at the respective Group companies. Companies exposed to an increased corruption risk are supported by an independent Local Compliance Officer, who assists the respective management with the implementation of the Corruption Prevention Compliance Programme.

Mercedes-Benz Group AG regularly assesses the effectiveness of its measures and continuously enhances its methods and processes, particularly with respect to maintaining and promoting fair competition. In addition, Mercedes-Benz Group AG offers a variety of communication and training measures to sensitise its employees and raise awareness of the importance of corruption prevention.

In order to ensure an independent, external assessment of the Corruption Prevention Compliance Programme, Mercedes-Benz Group AG commissioned KPMG AG to audit its Compliance Management System for corruption prevention in accordance with 980 Standard of the Institute of Public Auditors in Germany. This audit, which was based on the principles of appropriateness, implementation and effectiveness, was successfully completed at the end of 2019.

#### ↗ Training

#### ↗ Effectiveness of the management approach

### Promoting fair competition

GRI 3-3 | GRI 206-1

The Group-wide antitrust compliance programme is oriented to national and international standards in order to ensure fair competition. The programme establishes a binding, globally valid company standard that defines how matters of antitrust law are to be assessed. It is guided by the standards of the underlying European regulations and takes into account the established legal practice of the European antitrust authorities and courts. The objective in this regard is to ensure a uniform level of compliance and advice in all countries.

By means of an advisory hotline, guidelines and practical support, Mercedes-Benz Group AG helps its employees around the world to recognize situations that might be critical from an antitrust perspective and to act in compliance with all regulations. This is particularly important when employees deal with competitors, cooperate with dealers and general distributors, and participate in trade association work. In addition to the central legal department of Mercedes-Benz Group AG specialist counsels, local legal advisers are also available to the global business units. They also ensure that the standards are met.

The results of the Group's annual compliance risk analysis form the basis for defining the measures. **Responsibility for designing and implementing measures for addressing possible antitrust risks lies primarily with the respective Group company's management.** It also has the duty of supervision. As a result, managers at Group companies cooperate closely with the Integrity and Legal Affairs division, which also provides information on how to implement compliance measures effectively. Within the framework of its corporate management, the Mercedes-Benz Group AG monitors the management activities of the respective Group entity. In particular, entities which face a higher potential risk must also systematically assess the adequacy and effectiveness of locally implemented antitrust compliance measures at regular intervals. **The Mercedes-Benz Group monitors the management activities of the respective company within the framework of Group management.** To supplement this, the Compliance, Legal Product & Technology and Corporate Audit units **conduct monitoring activities at the company's divisions.** They also examine whether antitrust laws and internal regulations are complied with, regardless of whether a suspicion exists. This helps the Mercedes-Benz Group to continuously improve the effectiveness of its antitrust compliance programme and adapt it to global developments and new legal requirements. The Mercedes-Benz Group constantly refines and improves the associated methods and processes.

The Mercedes-Benz Group utilises a variety of communication and training measures to make its employees aware of the importance of competition-related and antitrust laws and issues. In addition to the basic topic of "Contact with competitors", the training focused on how to deal with contacts and behaviour in the area of association work, as well as in cooperation activities with other companies.

Managers and employees who are involved in trade association work are also required to take additional courses.

The local legal departments of foreign Group companies have independently organised and conducted additional specific training courses.

The Mercedes-Benz Group continually reviews existing training measures and develops them further – in particular the measures designed to maintain and promote fair competition. In addition, further information materials such as guides and toolkits on antitrust law in the context of ESG are to be developed for employees in the future.

#### ↗ Training

In order to ensure an independent external assessment of the Antitrust Compliance Programme, Mercedes-Benz Group AG commissioned KPMG AG Wirtschaftsprüfungsgesellschaft to audit the Compliance Management System for antitrust law in accordance with Standard 980 of the Institute of Public Auditors in Germany. This audit, which was based on the principles of appropriateness, implementation and effectiveness, was successfully completed at the end of 2021 for the second time, after having also been conducted in 2016.

### Compliance with technical and regulatory requirements

#### GRI 416-2

For Mercedes-Benz Cars and Mercedes-Benz Vans, technical compliance means adhering to technology-related laws, regulatory requirements and standards. The objective here is to identify risks within the product creation process (product development and certification) at an early stage and to implement preventive measures. For this purpose, the Group has established a technical Compliance Management System (tCMS) in its automotive divisions. The Mercedes-Benz Group's objective is to ensure that Mercedes-Benz Cars and Mercedes-Benz Vans comply with all legal and regulatory requirements throughout the entire product development and certification process. The tCMS defines values, principles, structures and processes in order to provide employees with guidance and orientation, especially with regard to challenging questions on how to interpret technical regulations.

Mercedes-Benz Cars and Mercedes-Benz Vans has also created dedicated expert units for technical compliance in the development departments of vehicle-related divisions. Among other things, these units manage a network of technical compliance contact persons in the development and certification departments. This network serves as a link between the operating units and

the compliance organisation. It supports the development departments in matters of technical compliance. Complex issues of technical compliance are evaluated and decided within the framework of an interdisciplinary process based on technical, legal and certification-related criteria (tCMS committees).

To account for the transformation and the special risks in software development and digitalisation, Mercedes-Benz Cars and Mercedes-Benz Vans have expanded the tCMS organisation in the Integrity and Legal Affairs division. Here, a new unit was established that adjusts tCMS processes and structures – and supplements them when necessary – in line with specific software development requirements. In this context, further expansion of the global tCMS network has also begun.

Across the Group, the tCMS is managed by an independent governance function whose management team reports directly to the Board of Management member for Integrity and Legal Affairs. This governance function comprises employees with expertise in various fields, such as development, legal affairs, integrity and compliance.

The tCMS policy has applied to Mercedes-Benz Cars and Mercedes-Benz Vans since 2019. Since then, it has been valid for all subsidiaries with relevant development and certification activities. The policy summarises the key elements of the tCMS and defines the roles and responsibilities of all relevant functions. Process descriptions have been developed for key elements of the tCMS; the rights and obligations of the tCMS committees are defined in rules of procedure.

In addition, the whistleblower system BPO is available as a point of contact when there are indications of misconduct in connection with technical compliance. Examples of such violations include infringements of technical provisions or environmental protection regulations.

#### ↗ The whistleblower system BPO

Various training and communication measures are regularly carried out in order to raise awareness of integrity, compliance and the law in the product development process among employees of Mercedes-Benz Cars and Mercedes-Benz Vans in the development and certification departments of all business units.

#### ↗ Training

In order to ensure technical compliance in the supply chain of Mercedes-Benz Cars and Mercedes-Benz Vans, the segments raise awareness of the importance of technical compliance among business partners, especially suppliers. Mercedes-Benz Cars and Mercedes-Benz Vans communicate the specific requirements in the form of information guidelines, for example. The segments also enter into dialogue with selected business partners whose scope of supply is of particular relevance for technical compliance; Mercedes-Benz Cars and Mercedes-Benz Vans communicate their understanding of technical compliance and clarify their expectations towards their business partners.

Technical Integrity is an important component of the tCMS, helping to further develop integrity culture in the product development departments and establish it there for the long term. It makes an important contribution to the corporate culture, as well as to the protection of the Group's reputation, by openly addressing critical issues and making deliberate discretionary decisions.

The “Speak up” and “Judgement calls” commitment statements jointly formulated by the integrity management team and the development units provide all employees in the development and certification units with a basis for a common understanding of responsible behaviour in the product creation process and are firmly embedded within the respective organizations by means of additional measures within the units.

Mercedes-Benz Cars and Mercedes-Benz Vans assess the effectiveness of the tCMS by means of an annual monitoring process. The improvement measures identified here are considered and addressed.

In order to ensure an independent external assessment of the tCMS, Mercedes-Benz Group AG commissioned KPMG AG Wirtschaftsprüfungsgesellschaft to audit the tCMS with a focus on relevance to emissions in accordance with Standard 980 of the Institute of Public Auditors in Germany. This audit, which was based on the principles of appropriateness, implementation and effectiveness, was successfully completed at the end of 2020.

#### ↗ Independent audits

### Responsible handling of data

Connectivity and digitalisation will have a major impact on mobility in the future. The responsible handling of data is therefore becoming increasingly important for the success of the Mercedes-Benz Group. The Group meets the increased regulatory requirements in the area of data protection with its Group-wide Data Compliance Management System (Data CMS), which is embedded in an overarching data governance system together with the data vision and data culture.

#### ↗ Data responsibility

### Sanctions compliance, export control and prevention of money laundering and terrorist financing

In the context of the volatile and dynamic development of personal and goods-related sanctions and embargoes, Mercedes-Benz Group AG ensures that all applicable sanctions and export restrictions are observed.

The Group-wide policies on sanctions compliance and export control define uniform measures for compliance with applicable sanctions regulations and goods-related restrictions. Among other things, this involves the systematic checks of applicable sanctions lists and goods-related restrictions. Doing business with individuals, companies and organisations designated on these lists is a potentially illegal and punishable offence. As required by law, the Mercedes-Benz Group compares the sanctions lists with the data of customers, employees, strategic cooperation partners and business partners, for example, from Sales and Procurement. In doing so, it considers applicable supranational sanctions lists and embargos, such as those published by the United Nations and the European Union, as well as national sanctions lists from various countries (in particular the United States) while taking respective data protection requirements into account. The extent to which further risk minimization measures are necessary and must be implemented is constantly analysed and evaluated.

In addition, money laundering and the financing of terrorism cause tremendous damage — to the economy and society in equal measure. Even an accusation of money laundering can compromise the Group's reputation and have financial consequences for the Mercedes-Benz Group, as well as for its shareholders and stakeholders. For this reason, the prevention of

money laundering and the financing of terrorism, and the implementation of appropriate measures to combat both, are defined as central compliance goals in the Group's Integrity Code.

The Mercedes-Benz Group produces and sells motor vehicles worldwide, and offers its customers corresponding services as well as suitable financial and mobility solutions. As a result, Mercedes-Benz Group AG and its affiliates conduct their operations in accordance with the provisions of the German Money Laundering Act (GwG) applicable to both distributors of goods and the financing and leasing business. For example, the Mercedes-Benz Group has taken groupwide measures to prevent and combat money laundering and terrorist financing.

In order to effectively combat and prevent money laundering, the Mercedes-Benz Group established a two-pillar model (trade in goods and mobility services) which aims to take into account the different regulatory requirements in the area of goods trading on the one hand and the area of financial services on the other. It uses an integrated compliance approach to check applicable sanction lists and restrictions on certain goods and implements measures for the prevention of money laundering and the financing of terrorism. On the one hand, these measures aim to prevent supranational and national sanctions and embargoes from being evaded; on the other, money laundering, the financing of terrorism, organized crime and other types of corporate crime are to be combated.

The first pillar of money laundering prevention comprises the affiliates of the Mercedes-Benz Group as dealers in goods, while the second pillar relates to the Mercedes-Benz Mobility financial companies. For the first pillar of the core business, vehicle sales and service in goods trading, Mercedes-Benz Group AG has officially appointed the Chief Compliance Officer and Vice President Legal Product & Technology as the responsible Group Money Laundering Officer and his deputy respectively. They report directly to the Board of Management member responsible for the prevention of money laundering, are in charge of money laundering prevention for all affiliates in the goods trade and act as a contact for the regulatory authorities, law enforcement agencies, authorities for the investigation,

prevention and elimination of threats as well as for the Central Office for Financial Transaction Investigations. In this process, the Group Anti-Money Laundering Officer for the distribution of goods reports to the Board of Management member for Integrity and Legal Affairs, whereas the Group Anti-Money Laundering Officer for Mercedes-Benz Mobility reports to the Board of Management member for Finance & Controlling. The strategic exchange between these two pillars is ensured by the Group-wide Anti Financial Crime Committee. This committee brings together the Group Anti-Money Laundering Officers and their deputies from both pillars as well as key stakeholders for compliance and criminal law issues in order to share information.

The Anti Financial Crime & Export Control (AFC & ECL) specialist unit supports the Money Laundering Officer in all their tasks: for example, it performs the regulatory function for Mercedes-Benz Group AG and all its companies in the area of goods trading across all business divisions, and is responsible for the standards and processes applicable throughout the Group in accordance with the Money Laundering Act. In addition, it is responsible for the Group-wide Sanctions Compliance Program and export control compliance. As a central unit, the specialist unit therefore also brings together under one roof the two Centres of Competence for Preventing and Combating Money Laundering and the Financing of Terrorism and the Centre of Competence for Sanctions Compliance and Export Control.

Prevention of money laundering at Mercedes-Benz Mobility, the second pillar, is managed by the "Anti-Money Laundering@MBM Group Office", which defines the standards and uniform measures in accordance with the Money Laundering Act in the Guideline on the Prevention of Money Laundering and Terrorist Financing of Mercedes-Benz Mobility AG. The subsidiaries of Mercedes-Benz Mobility AG are obliged to implement the policy in their respective organisations. The Group Office continuously monitors their implementation in close cooperation with the money laundering officers of the subsidiaries of Mercedes-Benz Mobility AG through an annual, detailed group risk analysis as well as control and monitoring actions derived from it. If a need for action is identified, the Group Office informs the respective money laundering officers and the management in order to agree on remedial measures.

The activities are always carried out in close cooperation with the compliance organisation of the Mercedes-Benz Group and the AFC department for goods trading.

### Open-source software and licensing agreements

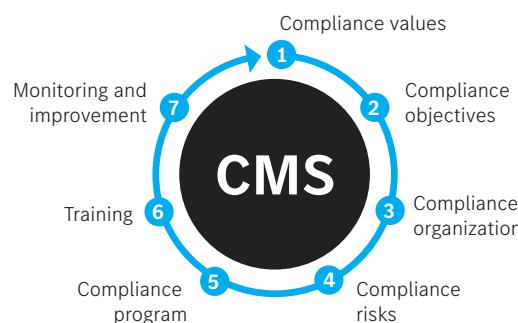
In 2021, the Mercedes-Benz Group introduced a Group-wide “Free and Open Source” policy. In this policy, the Group has defined measures, processes and systems with which it ensures that the licensing requirements for open-source software are observed. This so-called **FOSS** ecosystem was further developed by the Group in the reporting period, with regard to the digitalisation and automation of processes to improve the feasibility of the licensing requirements. One of the goals was to establish a “FOSS Disclosure Process”. This also makes a significant contribution to the Mercedes-Benz Group’s digitalisation offensive.

## The Compliance Management System

GRI 3-3

The CMS at Mercedes-Benz Group AG consists of basic principles and measures that ensure compliant behaviour. The CMS is based on national and international standards and is applied on a global scale in the Mercedes-Benz Group. The CMS consists of seven elements that build on one another.

### The Compliance Management System



### Compliance organisation

GRI 3-3

The compliance organization at the Mercedes-Benz Group is structured functionally, regionally and along the value chain. As a result, it can provide effective support — for example, by means of guidelines and advice. Contact persons are available to each function and region. In addition, a global network of

local contact persons makes sure that the Group’s compliance standards are met. The contact persons help the management at the companies implement the Mercedes-Benz Group’s compliance programme at their respective sites.

Moreover, the Compliance Board provides guidance regarding overarching compliance topics and monitors activities to see whether the Group’s compliance measures are effective. The Board’s mission is to react promptly to changes in business models and the business environment, deal with regulatory developments and continuously enhance the CMS. The Compliance Board consists of representatives of the compliance and legal affairs departments. It meets regularly and as needed, and is chaired by the Chief Compliance Officer and Vice President Legal Product & Technology.

The Chief Compliance Officer and Vice President Legal Product & Technology reports directly to the member of the Board of Management for Integrity and Legal Affairs and to the Audit Committee of the Supervisory Board. He also reports regularly to the Board of Management of Mercedes-Benz Group AG at regular intervals and as needed on matters such as the status of the CMS and its further development, as well as the BPO whistleblower system.

In addition, the Chief Compliance Officer and Vice President Legal Product & Technology reports to the Group Risk Management Committee. From the Mercedes-Benz Group’s perspective, the structure of the reporting lines safeguards the compliance officers’ independence from the business divisions.

### Compliance risks

GRI 3-3 GRI 205-1

The Mercedes-Benz Group examines and evaluates its subsidiaries and corporate departments systematically each year in order to reduce compliance risks. In this process, the Mercedes-Benz Group uses, for example, centrally available information about its companies, such as revenue, business models and relations with business partners. If necessary, other locally sourced information is supplemented. The results of these analyses are the foundation of the Group’s compliance risk control.

## How legal proceedings are handled

GRI 2-16/-27 GRI 3-3 GRI 206-1

The Mercedes-Benz Group assesses legal proceedings against its subsidiaries as being significant if they represent a particular financial and/or reputational risk for the Group. Significant legal proceedings against subsidiaries of the Mercedes-Benz Group are presented in the Annual Report 2022 or in the respective current quarterly report.

🌐 Risk and Opportunity Report, AR 2022

## Measures

### Compliance programme

The compliance programme comprises principles and measures that are designed to reduce compliance risks and prevent violations of laws and regulations. The individual measures are based on the knowledge gained through the Group's systematic compliance risk analysis. The Mercedes-Benz Group focuses, among other things, on the following aspects: the continuous raising of awareness of compliance issues, the systematic tracking of information received regarding misconduct, and the formulation of clear standards for the behaviour of business partners. All of these points are addressed in greater detail in a later section.

### The whistleblower system BPO

GRI 2-16/-25

The Business Practices Office (BPO) whistleblower system enables all employees worldwide, as well as business partners and third parties, to report violations of the rules. The BPO is available around the clock to receive information, which can be sent by e-mail or normal mail or by filling out a special online form. External toll-free hotlines are also available in Brazil, Japan, South Africa and the United States. Reports can also be submitted anonymously if local laws permit this. In Germany, whistleblower reports can also be submitted to an external neutral intermediary in addition to the BPO.

The information provided to the BPO whistleblower system enables the Mercedes-Benz Group to learn about potential risks and thus to prevent damage to the Group and its employees and business partners, as well as to protect individuals who might be harmed by misconduct. A globally valid corporate policy defines

BPO procedures and the corresponding responsibilities. This policy aims to ensure a fair and transparent process that takes into account the principle of proportionality for the affected parties, while also giving protection to whistleblowers. It also defines a standard for the Mercedes-Benz Group's evaluation of incidents of misconduct and decisions about their consequences. If a new report is received, the BPO usually confirms receipt to the whistleblower within 24 hours. After an initial risk-based assessment based on the four-eyes principle, the BPO forwards the case to an appropriate investigation unit or to the responsible department.

If the initial risk-based assessment of an incident categorizes it as a low-risk rule violation for the Mercedes-Benz Group, the BPO hands the case over to the responsible unit — for example, the HR department, Corporate Security or Corporate Data Protection. The respective unit investigates the incident and deals with the case on its own authority. Examples of rule violations with a low risk include theft, breach of trust, and undue enrichment valued at less than €100,000 — if the violation does not fall into the category of corruption.

If the BPO's risk-based initial assessment categorizes an incident as a rule violation with a high risk for the Mercedes-Benz Group or for individuals affected by the violation, the BPO hands the case over to an investigation unit. The BPO provides support for the subsequent investigation until the case is closed. Examples of high-risk rule violations include offences related to corruption, breaches of antitrust law and violations of anti-money laundering regulations, as well as infringements of binding technical provisions or environmental protection regulations. Personal matters, such as incidents of sexual harassment or human rights violations, are also considered high-risk rule violations.

Based on the report of the internal investigation unit, recognisable misconduct is also assessed under the aspect of labour law. Human Resources can then impose appropriate personnel measures in line with applicable labour laws. Possible personnel measures as a result of rule violations are described in the Treatment of Violations policy and can be viewed transparently by all employees. The investigation report can refer not only to irregular conduct, but also to favourable associated circumstances and possibilities for further

improving processes and for specifying measures that have a mitigating effect or prevent a repeat offence.

In an effort to constantly increase trust in the BPO whistleblower system and make it even better known to employees, the Mercedes-Benz Group uses a variety of communication measures. Here, the company also takes into account the knowledge gained from the most recent employee survey. The Group provides informational materials such as country-specific information cards, pocket guides and an instructional video that is available in ten different languages. The Mercedes-Benz Group also holds dialogue events at which it provides employees with information about the BPO. In addition, the company regularly informs employees about the type and number of reported violations and makes case studies available on a **quarterly basis**. For example, individual case studies of rule violations representing a high risk for the Mercedes-Benz Group are regularly presented in-house in anonymised form. In this way, the Group wants to contribute to becoming a “learning organisation”. In addition, the Mercedes-Benz Group publishes quarterly statistics on the incidence of cases by case category in order to raise awareness among employees and checks the effectiveness of the measures through regular employee surveys. This involves asking specific questions about awareness of and trust in the BPO. Within this framework, employees can also give feedback worldwide.

Whistleblowers who report a possible rule violation based on concrete indications are protected; the confidentiality of their statements is ensured. The policy classifies penalties imposed on whistleblowers as a high-risk rule violation. As a result, whistleblowers who have been discriminated against for their reports should contact the BPO. Discrimination against or intimidation of a person because of a report they have made is punishable by disciplinary measures in consideration of the applicable law.

Whistleblowers may also contact government authorities (such as the police, public prosecutor's office and supervisory bodies for financial services) at any time. There are no in-house requirements or measures that would hinder or prevent such a step.

## Sales partners and suppliers

The Mercedes-Benz Group expects not only its employees to comply with laws and regulations. The Group also requires its sales partners and suppliers to adhere to clear compliance requirements, because it regards integrity and conformity with regulations as a precondition for trust-based cooperation. The Business Partner Standards describe in detail exactly what the Mercedes-Benz Group expects of its business partners.

In the selection of direct sales partners and in existing sales partnerships, the Group ensures that its business partners comply with laws and observe ethical principles.

In order to monitor this, the Mercedes-Benz Group uses a globally standardized, risk-based Sales Business Partner Due Diligence Process. During the reporting year, the Group subjected all of the new sales partners to a **due diligence** audit. In addition, it audits the existing sales partners as part of the monitoring process. Monitoring in this area is designed to ensure that the company can identify possible integrity violations by its sales partners. The Mercedes-Benz Group also reserves the right to terminate cooperation with, or terminate the selection process for, any sales partner who fails to comply with the Group's standards. In addition, the Mercedes-Benz Group works with its procurement units to continuously improve processes for selecting and cooperating with suppliers.

The Mercedes-Benz Group's Responsible Sourcing Standards replaced the Supplier Sustainability Standards in the reporting year and therefore now apply to the suppliers. On the basis of these standards and the Integrity Code, the Mercedes-Benz Group makes a Compliance Awareness Module available to each of its suppliers and sales partners. These modules are intended to sensitize them to current integrity and compliance requirements such as those related to anti-corruption measures and technical compliance. Through these measures, the Mercedes-Benz Group also offers its suppliers and sales partners assistance for dealing with possible compliance risks.

### ↗ Requirements for suppliers

## Training

**GRI 2-17 GRI 3-3 GRI 205-2**

Mercedes-Benz Group offers an extensive range of compliance training courses that are based on its Integrity Code — for example, courses for employees in administrative areas and for members of the Supervisory Board and the executive management of Group companies.

The contents and topics of the training courses are tailored to the roles and functions of the respective target group. Mercedes-Benz Group AG regularly analyses the need for its training programme, expands or adapts it as necessary and conducts evaluations. As a review of the acquired knowledge, the web-based training courses contain test and control questions that must be answered correctly for successful completion of the respective modules. Employees in administration have access to a web-based training programme for specific target groups, which, in addition to a mandatory basic module, includes specific modules for managers as well as expert modules on various compliance topics.

Mercedes-Benz Group AG automatically assigns the respective modules to employees when they are recruited or promoted, or when they switch to a role associated with increased risk. Employees must complete the training programme every three years. The training is voluntary for industrial employees. The central web-based training portfolio is complemented by local training courses and classroom training.

### **↗ Integrity and compliance training programme 2022 – web-based**

Mercedes-Benz Group AG also offers information and training measures for supervisory and management functions. This applies, for example, to new members of the Supervisory Board of Mercedes-Benz Group AG. As part of the onboarding programme, Mercedes-Benz Group AG informs the new members about the topics of compliance, integrity, law and sustainability – specifically, for example, about the antitrust compliance programme and the technical compliance management system.

The new web-based management module “Corporate Governance” is aimed at CEOs and CFOs, members of a supervisory board committee of Mercedes-Benz Group AG, as well as controlled and non-controlled

shareholders. It provides general knowledge about the rights, duties and personal risks associated with the mandate. In this way, the training supports newly appointed as well as existing members of senior management and Supervisory Board functions in their role and exercise of their mandates.

## Effectiveness and results

### **Effectiveness of the management approach**

**GRI 3-3**

Each year, the Mercedes-Benz Group checks the processes and measures of the CMS and conducts analyses to find out whether the measures are appropriate and effective. For these activities, the Mercedes-Benz Group relies on information about the Group companies as well as additional locally gathered information. The Group also monitors their processes regularly on the basis of key performance indicators such as the duration and quality of individual processes. To determine these indicators, the Mercedes-Benz Group checks, among other things, whether formal requirements are being met and whether the content is complete. It also takes into account the knowledge gained through both internal and independent external assessments.

If changed risks or new legal requirements call for adjustments, the Mercedes-Benz Group adapts the CMS accordingly. The Group companies implement the improvement measures derived from this process. The companies also regularly monitor these measures to determine their effectiveness and inform the responsible management committees about the results of their monitoring process.

## Results

### **Independent audits**

In order to ensure an independent external assessment of the compliance programme, Mercedes-Benz Group AG appointed auditing firm KPMG AG to audit its Compliance Management Systems (CMS) for corruption prevention, antitrust and technical compliance in accordance with Auditing Standard 980 of the Institute of Public Auditors in Germany. These audits, which were based on the principles of appropriateness, implementation and effectiveness, were successfully

completed for the Group's CMS Corruption Prevention at the end of 2019, for tCMS (focus on emissions) at the end of 2020 and for CMS Antitrust at the end of 2021. The latter was the second such audit, the first having been conducted in 2016.

### **Reported violations**

**GRI 2-16 GRI 3-3 GRI 205-1/-3 GRI 406-1**

The Business Practices Office (BPO) whistleblower system enables all employees, as well as business partners and third parties, to report misconduct anywhere in the world. A total of 72 new cases were opened during the reporting year (2021: 33 cases). Overall, 19 cases were closed "with merit". In these cases, the initial suspicion was confirmed. Of these cases, two were in the Environmental Violations category, one was in the Data Protection category and four were in the Reputational Damage category. In ten cases, accusations of inappropriate behaviour of employees toward third parties were confirmed – e.g. racism or sexual harassment. One case fell into the category of Antitrust Law. Another case fell into the category of Injury to Physical Integrity. With regard to those cases that are closed "with merit", the Mercedes-Benz Group decides on appropriate response measures in line with the principles of proportionality and fairness. The personnel measures in 2022 included admonishments, warnings and terminations without notice.

# Key figures

## Integrity and compliance training programme 2022 – web-based

**GRI 205-2**

<b>Basic Modules</b>		
Basic Module – Integrity@Work <i>(Key content: integrity and compliance as a competitive advantage, corruption prevention, protection of free competition, protection of personal data, human rights, tip-offs of rule violations)</i>	<b>Number of participants</b>	<b>19,873</b>
thereof		
administrative employees worldwide:		19,658
managers worldwide:		215
<b>Management Module</b>		
Management Module – Integrity@Work <i>This module is automatically assigned to all managers (full-time and part-time) of Mercedes-Benz Group AG and group member companies.</i>	<b>Number of participants</b>	<b>16,566</b>
thereof		
administrative employees worldwide:		16,396
managers worldwide:		170
<b>Expert Modules</b>		
Management Module – Corporate Governance <i>This module is assigned to all CEOs/CFOs as well as members of a supervisory board of Mercedes-Benz Group AG and controlled as well as non-controlled holdings.</i>	<b>Number of participants</b>	<b>858</b>
thereof		
managers worldwide:		858
Management Module – Anti-Money Laundering	<b>Number of participants</b>	<b>431</b>
thereof		
managers worldwide:		431
These modules are automatically assigned to all of the active administrative employees (full- and part-time) at Mercedes-Benz Group AG and Group companies.		
Expert Module – Antitrust Overview	<b>Number of participants</b>	<b>10,364</b>
thereof		
administrative employees worldwide:		9,273
managers worldwide:		1,091
Expert Module – Data@Mercedes-Benz	<b>Number of participants</b>	<b>26,473</b>
thereof		
administrative employees worldwide:		22,482
managers worldwide:		3,991
Expert Module – Data@Mercedes-Benz	<b>Number of participants</b>	<b>20,578</b>
thereof		
administrative employees worldwide:		20,292
managers worldwide:		286

## **Integrity and compliance training programme 2022 – web-based**

**GRI 205-2**

	<b>Number of participants</b>	2,003
Expert Module – EU General Data Protection Regulation	thereof	
	administrative employees worldwide:	1,163
	managers worldwide:	840
	<b>Number of participants</b>	885
Expert Module – Insider Law	thereof	
	administrative employees worldwide:	610
	managers worldwide:	275
	<b>Number of participants</b>	133
Expert Module – Integrity & Compliance@Mobility Sales & Marketing	thereof	
	administrative employees worldwide:	25
	managers worldwide:	108
	<b>Number of participants</b>	3,458
Expert Module – Integrity & Compliance@Procurement	thereof	
	administrative employees worldwide:	3,054
	managers worldwide:	404
	<b>Number of participants</b>	19,833
Expert Module – Integrity & Compliance@Sales & Marketing	thereof	
	administrative employees worldwide:	17,900
	managers worldwide:	1,933
	<b>Number of participants</b>	8,259
Expert Module – Intellectual Property	thereof	
	administrative employees worldwide:	7,717
	managers worldwide:	542
	<b>Number of participants</b>	22,670
Expert Module – Product Safety & Liability	thereof	
	administrative employees worldwide:	19,867
	managers worldwide:	2,803
	<b>Number of participants</b>	3,130
Expert Module – SCE Relevance@Cars and Vans	thereof	
	administrative employees worldwide:	3,043
	managers worldwide:	87
	<b>Number of participants</b>	399
Expert Module – Social Compliance	thereof	
	administrative employees worldwide:	336
	managers worldwide:	63
	<b>Number of participants</b>	28,256
Expert Module – Technical Compliance & Integrity@Cars and Vans	thereof	
	administrative employees worldwide:	25,971
	managers worldwide:	2,285

## **Integrity and compliance training programme 2022 – face-to-face<sup>1,2</sup>**

**GRI 205-2**

	<b>Number of events</b>	<b>Number of participants</b>
Corruption Prevention (incl. general compliance topics)	124	3,390
Anti-Money Laundering	28	469
Antitrust	26	956
Sanctions Compliance	17	1,452
Data Compliance	92	1,075
Technical Compliance	48	5,315

1 Face-to-face training sessions were partially conducted in digital form in the reporting year.

2 Target group relevant managers and administrators worldwide



# Data responsibility

## Materiality and goals

GRI 3-3

Targets	Target horizon	Status as of 2022
Evaluate the effectiveness of the Data Compliance Management System <sup>1</sup>	Ongoing	Design: completely fulfilled Implementation: completely fulfilled Operational effectiveness: partially fulfilled
Strengthen customer trust in Mercedes-Benz data processing	Ongoing	

<sup>1</sup> Multi-stage assessment method for the continuous improvement of:

1. Design – Is the system designed to meet the goals of the Compliance Management System?
2. Implementation – Has the system, which is effective in its design, been implemented accordingly in practice?
3. Operational effectiveness – Is the system as set up being used effectively?

Digitalisation, networking and big data are already shaping the mobility of tomorrow: the Mercedes-Benz Group conserves valuable resources through digital product planning. Stronger networking during production ensures more efficient processes. And customers benefit from data-based offers from the sales and service teams.

However, while data open up new business opportunities, their handling also requires great care. Data constitute a sensitive commodity that is worthy of the protection offered by a strict legislative framework. The responsible handling of data is thus becoming increasingly important for the success of the Mercedes-Benz Group.

The regulatory requirements for data protection have increased significantly in recent years. Most recently, China has enacted extensive regulations on data protection and security; in the USA, a comprehensive data protection law is being discussed. At the same time, public awareness of the issue has also increased. Responsible handling of data is therefore also a decisive competitive factor today.

# Data responsibility

## Strategy and concepts

### Data protection and data security

**GRI 3-3**

Ensuring data security and respecting the protection of personal data is a high priority for the Mercedes-Benz Group. It can only gain acceptance for new technologies such as artificial intelligence (AI) if it demonstrates that the data of its customers and of the users of its products are secure. As one of the first automotive companies to do so, the Mercedes-Benz Group therefore defined and published a series of fundamental  principles for dealing with this technology.

At the Mercedes-Benz Group, data protection begins with the design of new products and services and includes numerous other measures to ensure compliance with data protection requirements. To plan, implement and regularly monitor all these measures in a systematic and risk-based manner, it uses an integrated data compliance management system.

### Holistic data responsibility

**GRI 3-3**

Data responsibility is more than data protection. The Mercedes-Benz Group is taking on this responsibility with a holistic approach to data governance. This approach covers legal, cultural and organisational aspects. The key aims are the sustainable design of data-based business models and the responsible handling of data in the interest of customers, employees and other stakeholders. In order to achieve these aims, the Mercedes-Benz Group has introduced measures such as establishing the Group-wide Data Governance System. This system primarily consists of the data governance structure, the data model, the data culture and a data compliance management system.

### Data governance structure

The data governance system was developed at the Board of Management's Integrity and Legal Affairs division.

The implementation of data governance in the divisions of the Mercedes-Benz Group is the responsibility of the various bodies for data and data analytics. These are cross-functional teams of managers who undertake data-related responsibilities. The teams meet regularly to drive forward the digital transformation process within the divisions on the basis of the measures prioritised by the Board of Management. All relevant specialist units coordinate their current data analytics projects in the various Boards and create the basis for the efficient and responsible use of data. Specialists at Corporate Data Protection monitor the projects from the outset in order to help ensure that they are conducted in compliance with all relevant laws.

Within Mercedes-Benz Group AG, a Digital Governance Board that includes members of the Board of Management has been created. Since the beginning of 2022, this board has been continuing the work previously conducted by the former Data Governance Committee. The body defines the framework for Group-wide core topics of digital governance and thus supports the digital transformation of the Group.

The operational implementation of the Mercedes-Benz Group's strategic goals in the area of data responsibility takes place in the individual business units. To this end, each business division of the Mercedes-Benz Group has established a corresponding programme for the creation of specific processes and systems to ensure the responsible use of data.

### Reliably controlling data protection and data compliance

The Chief Officer Corporate Data Protection at the Mercedes-Benz Group performs the tasks required by law to ensure compliance with data protection rules. Together with his team, he monitors compliance with data protection laws and the Group's own data protection policies. His tasks include handling complaints regarding data protection and communicating

with the regulatory data protection authorities. He also carries out communications and training measures. In addition, he advises responsible individuals and specialist units on all questions relating to data protection. He is independent and reports to the Chief Compliance Officer and the Board of Management member for Integrity and Legal Affairs.

Corporate Data Protection, headed by the Chief Officer Corporate Data Protection, defines the individual elements of the Data Compliance Management System and coordinates its Group-wide implementation. The responsibilities of the Chief Officer Corporate Data Protection also include the performance of an annual data compliance risk assessment and the definition of data compliance measures. The implementation of such measures is the responsibility of the management of the respective corporate companies and divisions.

An important interface for the group-wide management of data compliance is the function of the Chief Compliance Officer, who heads the compliance

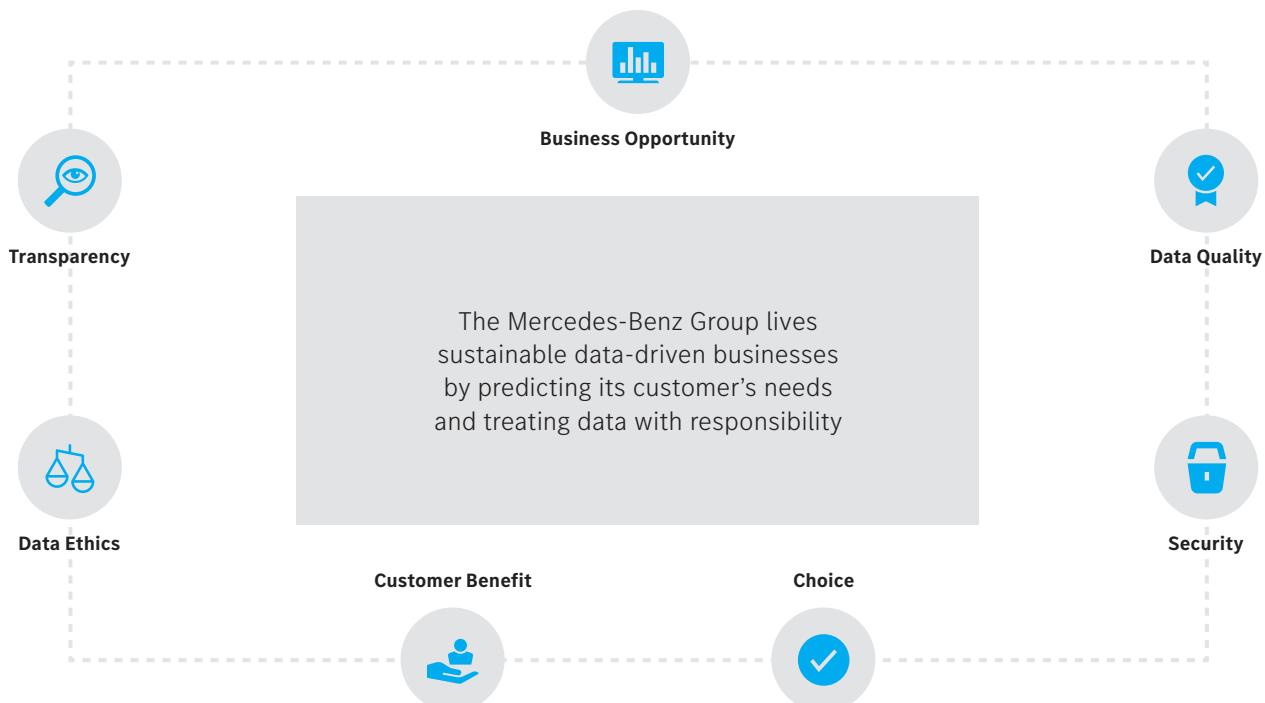
organisation and reports on current data compliance developments to the Board of Management member for Integrity and Legal Affairs on a regular basis and also submits quarterly reports to the full Board of Management.

Our approach to the effective management of data protection also relies on local contact persons at our numerous sites and facilities around the world. These Local Compliance Officers or Local Compliance Responsibles support the local management's implementation of the data compliance measures. The Mercedes-Benz Group prepares these local contacts specifically for their tasks and supports them with training and advisory services.

### The data vision provides the framework

The Mercedes-Benz Group's commitment to the responsible handling of data is anchored in its data vision, which provides employees with a clear framework on how they should handle data. It has been publicised throughout the Group and has also been incorporated into the current version of the [Integrity Code](#).

## Mercedes-Benz Group Data Vision and Guiding Principles



The core principles of the data vision include transparency, choice and data security. The Mercedes-Benz Group wants its customers to know which data are collected when and for what purpose, and provides detailed information about this in its sales information, in apps, in Owner's Manuals, in its terms of use, on its own [data protection website](#) and – wherever it is possible and sensible to do so – directly in the vehicle. The aim is that customers should be able to decide for themselves which services they actually use and which data they want to pass on – either by consent, by contract or by pressing a button. They can activate and deactivate the Mercedes me connect services in the Mercedes me Portal or in the Mercedes me App at any time, for example. Since the beginning of 2022, the platform has been available to customers in 28 countries. The Mercedes-Benz Group aims to make it available to most of its markets worldwide.

#### [Customer data](#)

The Mercedes-Benz Group also meets the high expectations of its customers with regard to data security in its vehicles: data security measures are constantly being refined in line with advances in IT in order to protect the data against manipulation and misuse.

For the Mercedes-Benz Group, effective data protection and data security in the vehicle are integral components of the development of products and services.

#### **Data Protection Policy EU: Binding Corporate Rules**

Based on the General Data Protection Regulation (GDPR), the [Data Protection Policy EU](#) defines uniform internal data protection standards for the Mercedes-Benz Group. This Policy regulates how EU-related personal data of employees, customers and business partners are to be handled for all Group companies. With it, the Mercedes-Benz Group is giving due consideration to the special regulatory environment in its European core market.

The European Data Protection Board recognised the Policy as Binding Corporate Rules (BCR) during the reporting year. By complying with these BCR, the Mercedes-Benz Group ensures an appropriate level of data protection when transmitting personal data to Group companies in third countries.

#### **The global data and information policy regulates data compliance worldwide**

##### **GRI 2-23/-24**

The Mercedes-Benz Group's global data and information policy forms the basis for the responsible, legally compliant and ethical handling of information and data worldwide. It represents the responsibilities and roles in a data and information-based environment transparently. In addition, the policy specifies targets, principles and organisational structures and determines measures for implementing the data compliance processes. It also includes the Global Standards for Data Compliance, which are designed to ensure a consistent level of data protection across the entire Group. In this way, the Mercedes-Benz Group is setting a binding standard that is supplemented by the requirements of the internal Data Protection Policy EU and the respective applicable local data protection laws. The policy is adapted on a regular basis to reflect current developments and its content further developed.

#### **Data Compliance Management System**

##### **GRI 3-3**

The Data Compliance Management System supports the Mercedes-Benz Group in the systematic risk-based planning, implementation and continuous monitoring of the measures to ensure compliance with data protection requirements. It takes into account the existing applicable data-protection regulations. For Group companies in the EU, the GDPR is particularly significant; for companies outside the EU, the basis is provided by the internal Global Standards for Data Compliance and the respective local data protection laws.

#### **Responsible handling of Artificial Intelligence**

[Artificial intelligence \(AI\)](#) is playing an increasingly important role for the future of the automotive industry in a wide variety of areas: it boosts flexibility and efficiency in production operations and enables the Group to meet the needs of its customers even better. But, alongside its great potential, the use of intelligent systems also holds risks – of which the Mercedes-Benz Group is aware. The responsible handling of AI is therefore a high priority.

## Four principles for the use of AI

In 2019, the Mercedes-Benz Group defined and published four principles for the responsible handling of AI. They are: "Responsible Use", "Explainability", "Protection of Privacy" and "Safety & Reliability". The objective is to approach AI-specific risks preventively. The principles are intended to provide employees with orientation for the development and deployment of AI and to strengthen trust in the Group's own AI-based solutions.

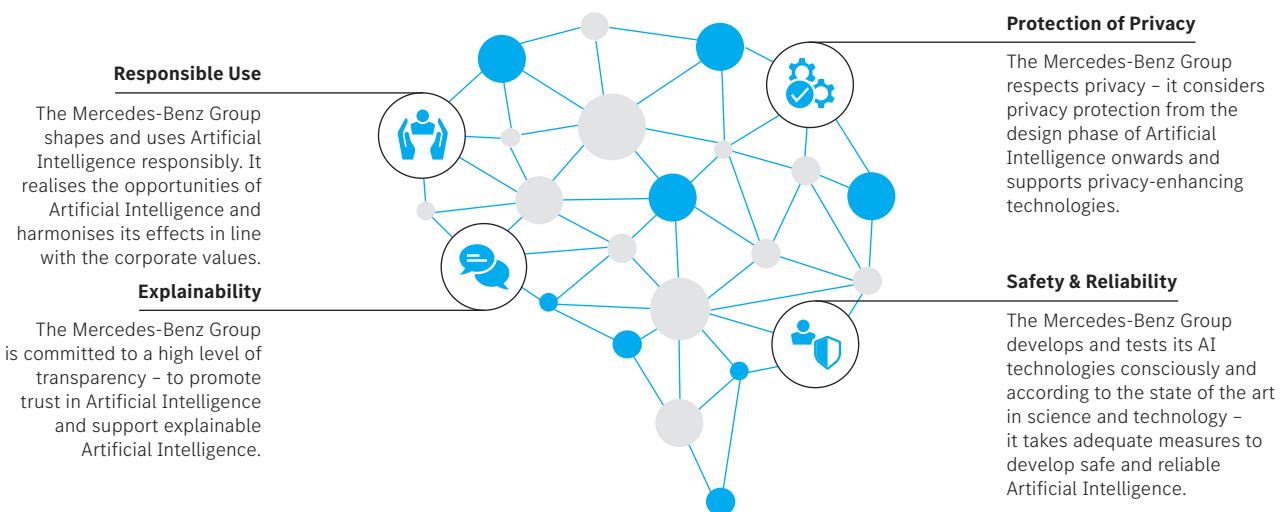
The principles are anchored in the Mercedes-Benz Group's Integrity Code. They complement the data vision and are thus an important component of digital corporate responsibility.

### Governance for AI

In addition, the Mercedes-Benz Group has developed a framework for dealing with AI. With a risk-based and agile approach, it wants to bring the four AI principles even more strongly into practice and ensure a legally compliant and ethical approach to AI.

The AI governance approach supports the Mercedes-Benz Group in identifying and minimising legal and ethical risks at an early stage – and thus in implementing AI-based business models responsibly. At present, it is especially focused on systems that use [Machine Learning \(ML\)](#) or [Deep Learning \(DL\)](#).

## The four AI principles



All employees of the Group companies who have email access must complete the web-based training courses “Integrity@Work” and “Data@Mercedes-Benz” every three years. Among other things, these training measures increase awareness for data protection issues and explain how data can be used sensibly. They also show how employees themselves can handle data responsibly. Participation in a web-based training course on the GDPR is mandatory for managers in the EU. The local management of each group company can extend these offers to additional employees. Members of the executive management and all supervisory bodies are also mandatorily assigned the web-based training course “Corporate Governance” to complete every three years – this also contains information on data protection. Thanks to the IT-supported Learning Management System, all training measures are available around the globe.

Employees from areas of particular relevance for data protection – for example, human resources, sales or development – receive personal training from the responsible Local Compliance Officer or Local Compliance Responsible. In addition, in group companies associated with a high data protection risk, annual training plans are drawn up and participation is documented.

The local compliance organisation plays an important role in implementing, advising and monitoring compliance measures. For this reason, the Local Compliance Officers and Local Compliance Responsibles from group companies associated with a medium or high data protection risk undertake a training programme on data protection and data compliance in addition to the above-mentioned training courses. In this programme, the Mercedes-Benz Group provides them with a basic knowledge of data protection law and guides them in their specific tasks. Local Compliance Officers and Local Compliance Responsibles at group companies associated with a low data protection-related risk take part in a video-based training programme with comparable content.

In addition, employees of the Mercedes-Benz Group are provided with extensive information on the topic of “data” on the Social Intranet.

## **Customer data**

The Mercedes-Benz Group sets a high standard for the handling of customers’ personal data. Customers use the Mercedes me Privacy Center, which was introduced in 2021, to obtain an even faster and more straightforward overview of what personal data of theirs is stored by the company. They can decide for which purposes Mercedes-Benz is allowed to use this data. The focus here is on user-friendliness. The customer can directly navigate to his or her available choices via three intuitive categories. This service underlines the principles of choice and transparency as set out in the data vision and stands for the responsible handling of data.

The Mercedes-Benz Group intends to further strengthen the trust of its customers in the Mercedes-Benz data processing. The Mercedes me Privacy Center is to be further developed for this purpose. To further increase the reach and involvement of the Privacy Center, Mercedes-Benz Cars is developing it for the next important touchpoint: the Mercedes me App. Customers should be able to manage not only their Connect services or vehicle settings, but also their data protection settings in the app. The app module is expected to be available for most markets before the end of 2023 and will be further developed based on customer interaction and feedback.

## **Risk assessment**

The Data Compliance Risk Assessment is a key component of the Mercedes-Benz Group’s Data Compliance Management System. As part of this systematic process, the Corporate Data Protection unit identifies, analyses and evaluates the data protection risks on an annual basis. This applies equally to Group entities and to the central divisions. The results of this analysis form the basis for managing and minimising risks.

## **Risks of digitalisation**

The digitalisation strategy opens up new opportunities for the Mercedes-Benz Group to increase the benefits for customers and the values of the Group. Nevertheless, the high penetration of all business areas with information technology (IT) also harbours risks for business and production processes as well as their services and products.

Cybercrime and **malware** pose risks that can affect the availability, integrity and confidentiality of information and IT-based resources. In the worst case, this would result in IT-supported business processes being interrupted – despite comprehensive precautions. This scenario could have a negative effect on the Group's financial result. Furthermore, the loss or misuse of sensitive data can, under certain circumstances, lead to a loss of reputation. In particular, stricter regulatory requirements can, among other things, give rise to claims by third parties – and result in costly regulatory requirements as well as penalties that affect the results of the Mercedes-Benz Group.

For the globally active Mercedes-Benz Group and its comprehensive business and production processes, it is essential that information is kept up to date, complete and correct, and that it can be exchanged. The Group's own cyber and information security regulations are based on the ISO/IEC 27000 series of standards for information security. New regulatory requirements on cyber security and cyber security management systems are taken into account in the further development of the processes and specifications of the Mercedes-Benz Group.

Secure IT systems and a reliable IT infrastructure are operated in consideration of the need to keep information secure. In addition, risks are identified over the complete life cycle of applications and IT systems and treated according to their importance. The information security risk management process ensures that Mercedes-Benz Group IT security risks are systematically identified, assessed, addressed and regularly reviewed. This also includes information risks arising from cooperation with business partners, suppliers, authorities, customers and other external third parties. The requirements for the process comply with ISO/IEC 27005:2018. The Mercedes-Benz Group places particular focus on risks that lead to business processes being interrupted or to data being lost or falsified due to IT system failures.

The Group's goal is to reduce possible downtimes in the event of damage and to keep the associated effects on the business processes as low as possible. To this end, the Mercedes-Benz Group is strengthening the resilience of its IT – among other things, emergency plans were updated during the reporting year and a crisis management exercise was carried out within the Group.

Special attention is required in this area due to the advance of the digitalisation and networking of manufacturing facilities. The Group is therefore constantly working to refine its technical and organisational security measures.

In a globally operating Cyber Intelligence & Response Center, the Mercedes-Benz Group analyses specific threats and coordinates countermeasures. It is also continuously expanding the protection of its products and services against threats from hacker attacks and cybercrime and also runs cyber security programmes to systematically reduce the risks.

In addition, Mercedes-Benz Group AG has held cyber insurance for several years. Here, risks from cyber attacks are covered in accordance with the insurance conditions typical in the market and up to the amount of the agreed sum insured.

The Mercedes-Benz Group estimates the extent of information technology risks and the probability of occurrence of corresponding incidents to be largely unchanged compared to the previous year due to the constant implementation of countermeasures.

## **Dealing with personal data breaches**

### **GRI 418-1**

A central reporting process has been established in the Mercedes-Benz Group for all incidents relating to information security: the "Information Security Incident Management" process of the Cyber Intelligence & Response Center (CIRC). The CIRC hotline can also be used to report data protection violations worldwide around the clock by telephone or email. Employees and contractors are instructed to report all potential personal data breaches via this system. Incidents relating to data protection that occur at units subject to the provisions of the GDPR are addressed by the Corporate Data Protection unit, which is supported in its local investigations by a local Incident Support service. The Corporate Data Protection unit then issues a recommendation to the local management team as to whether supervisory authorities must be informed of the incident and whether the affected data subjects must be notified within the period stipulated by law. In units which are not subject to GDPR, the Local Incident Support takes over the further processing.

Together with the local management teams, it decides whether supervisory authorities must be informed of an incident and whether affected data subjects must be notified. The Corporate Data Protection unit can be brought in for support at any time. The results of all investigations must be submitted to the Corporate Data Protection unit for documentation purposes.

During the reporting year, a small number of cases were reported to the responsible data protection supervisory authorities. No measures were taken by the official authorities against the Mercedes-Benz Group as a result.

In addition, the Mercedes-Benz Group has established a general whistleblower process, through which all potential compliance violations can be reported. If locally permissible, the report can also be made anonymously. The process enables fair and appropriate handling reports on incidents that pose a high risk to the Group and the employees.

#### ↗ The Whistleblower System BPO

The contact details of the Chief Officer for Corporate Data Protection are publicly available. He – or his team – is available as a point of contact for any customer with data protection concerns.

The number of complaints received by Corporate Data Protection are at a low level. Data protection supervisory authorities conducted no investigations during the reporting year as a result of customer complaints. No measures against the Mercedes-Benz Group were initiated.

#### Open dialogue

The Mercedes-Benz Group promotes open dialogue with external stakeholders. Its aspiration is to interact and share information with experts from associations, data protection authorities, industry and universities in particular and to take their interests into account. As part of the “Sustainability Dialogue” 2022, the participants in the “Data Responsibility” working group discussed the topic of “Strengthening customer trust in Mercedes-Benz data processing”.

As part of its association and committee work with the Federation of German Industries (BDI) or the European Automobile Manufacturers' Association (ACEA), the Mercedes-Benz Group has also participated in the public discourse on open legal and ethical issues relating to AI.

## Effectiveness and results

### Effectiveness of the management approach

#### GRI 3-3

The Mercedes-Benz Group's Data Compliance Management System is constantly being further developed. With the help of an annual monitoring and reporting process, it examines the extent to which the previously defined measures have been implemented and the goals pursued with them have been achieved. In this way, the compliance organisation is able to assess on an ongoing basis whether the compliance management system is appropriate and effective. The resulting need for action in any of these situations and the measures subsequently taken are documented as part of the Group's compliance reporting process, and the implementation is documented in the system.

### Results

The annual monitoring evaluation of the Data Compliance Management System has shown that its design is appropriate and suitable for achieving the compliance objectives. There are no indications that the implementation objectives of the Data Compliance Management System were not fully met in the reporting year. In terms of operational effectiveness, there are indications that the objectives of the Data Compliance Management System have not been fully met. Identified weaknesses are analysed and transferred to a lessons-learned process.

*On the basis of its data vision and the principles of its data vision, the Mercedes-Benz Group focused on strengthening customers' trust in the Mercedes-Benz Group's data processing in the year under review.*

A close-up photograph showing two hands gently holding two interlocking metal gears. The gears are silver-colored and have a complex, multi-toothed design. The hands are positioned so that the gears are the central focus, symbolizing how different parts work together in harmony. The background is dark and out of focus.

Partnerships

## Materiality and targets

GRI 3-3

Targets	Target horizon	Status as of 2022
Use political advocacy responsibly to achieve sustainable corporate goals and to facilitate the opinion-forming process at national and international level	Ongoing	Target achieved
Milestone: Support sustainable corporate goals with regard to "Electric only" and locally emission-free production through political representation of interests	2039	Target achieved
Milestone: Realign partnership portfolio to achieve sustainable business objectives	2023	
Strengthen the credibility of the Mercedes-Benz Group through transparency of political positions on sustainability issues	Ongoing	Target achieved
Milestone: Update the "Mercedes-Benz Group Climate Policy Report"	2023	Target achieved
Make lobbying activities comprehensible and verifiable on the basis of defined evaluation criteria	2022	Target achieved
Milestone: Continue stakeholder interviews and derive necessary measures for future political representation of interests	2022	Target achieved

Climate change mitigation and resource conservation are two of the existential challenges of our times. At the same time, the more ambitious the targets set by governments become, the less likely it is that they can be reached through the efforts of the automotive industry and its companies alone.

The political framework is the key here, so a cooperative dialogue needs to be maintained between government, business and industry, and society at large — and this is exactly what the External Affairs unit at the Mercedes-Benz Group seeks to accomplish.

# Trusted partner

## Strategy and concepts

### Managing transformation collaboratively

As an actor in the transport sector, the Mercedes-Benz Group supports the Paris Climate Agreement: It is convinced of the goals of the agreement.

Accordingly, the Group's political advocacy is clearly aligned with its sustainable business strategy.

The sustainable development of the transport sector entails many challenges. To cope with these, partnerships play an important role for the Mercedes-Benz Group. For the Group, partners in this sense are those stakeholders who work together with it to achieve the UN Sustainable Development Goals (SDGs).

↗ Climate protection

↗ Memberships, associations and initiatives

### Responsible and transparent representation of interests

GRI 3-3

Companies are expected to focus not only on their immediate core tasks such as value creation, research and development, or employment.

The Mercedes-Benz Group also bears social responsibility, which also includes the political representation of interests. This is because the balancing of different interests and the presentation of reliable information are important in enabling elected officials to make informed trade-offs and effective political decisions.

Transparency is not a contradictory concept here – on the contrary. Knowing the decision-making process and its participants is an understandable matter of public interest that deserves support. The Mercedes-Benz Group therefore aligns its political advocacy in the Group with principles of transparency and responsibility and is guided by the ↗ **Integrity Code** that applies throughout the Group. The Mercedes-Benz Group uses its expertise

in a targeted manner to achieve the greatest possible correspondence between public and private interests – and thus to be part of the solution.

The way a company safeguards its political interests helps to determine whether its concerns are accepted and taken into account in political decisions. The Mercedes-Benz Group is convinced that the public has a right to know about the decision-making processes, and that companies that position themselves transparently are more successful than others in the medium and long term. After all, this is also how they can make the greatest contribution to the community. Here, the Mercedes-Benz Group takes the route of publicly accessible parliamentary lobby registers. In this way, it can transparently inform the parliamentary groups about its issues, as well as about the resources and players involved in safeguarding its interests.

With the legally required registration in the German Lobby Register, the Mercedes-Benz Group AG has committed itself, in addition to its own lobbying principles, to comply with the Code of Conduct for Interest Representatives under the Lobby Register Act. It has made further commitments by voluntarily accrediting its political representatives in the EU Parliament's transparency register.

The Group also uses its own Mercedes-Benz Group Climate Policy Report (additional information

↗ [group.mercedes-benz.com/investors/share/esg/](http://group.mercedes-benz.com/investors/share/esg/)) to inform about its political positions. In addition, the Mercedes-Benz Group publishes further information regarding its stance on relevant, strategic issues affecting its stakeholders on the ↗ **corporate website**. Here too, it adheres to the principles of transparent representation of interests.

## Governance

**GRI 3-3**

For the Mercedes-Benz Group, constructive political dialogue is indispensable in all markets in which the Group is active worldwide.

The External Affairs (EA) unit is the central coordinating body for political dialogue at the national and international levels. It is located in Stuttgart and falls under the responsibility of the Chairman of the Board of Management. The EA unit shapes the Mercedes-Benz Group's relations via a global network with offices in Berlin, Brussels, Beijing and Washington, as well as corporate representations in various markets.

The department ensures that the positions shaping the Group's lobbying work are in line with the objectives and content of the sustainable business strategy of the Mercedes-Benz Group as well as with its guidelines and other public statements. The aim is to provide Group-wide coordinated content for the representation of interests and to address target groups in a coordinated manner. The Head of External Affairs is a permanent member of the Group Sustainability Board (GSB) and supports the board's work on political issues.

External Affairs also coordinates closely with the members of the Board of Management and specialist units on all lobbying issues. For this purpose, the department organises meetings of the so-called Governmental Affairs Committee for various Board of Management divisions. These meetings are held several times a year and on an ad-hoc basis.

The Mercedes-Benz Group uses Group-wide established compliance processes to address risks in connection with the political representation of its interests. The Business Practices Office (BPO) whistleblower system accepts complaints and reports relating to compliance issues.

↗ [The Whistleblower System BPO](#)

The Mercedes-Benz Group conducts mandatory training courses on a regular basis to ensure the employees comply with statutory requirements and internal guidelines and policies. The Integrity and Legal Affairs unit is responsible for such courses. EA supports the courses when needed by contributing its political expertise.

↗ [Training programme Integrity and Compliance 2022 - web-based training](#)

At the beginning of their employment, employees outside External Affairs whose positions also require them to represent Mercedes-Benz in the political environment of their market (e.g. plant management positions) usually participate in a special onboarding process (in the form of an interactive online training module) that prepares them for their tasks and makes them aware of relevant policies.

## Party donations and political contributions

**GRI 201-4 GRI 415-1**

In addition, the Mercedes-Benz Group's Lobbying, Political Contributions and Party Donations policy defines responsible approaches to be used in connection with grants, donations to political parties, and other instruments for representing the company's interests in the political realm. Among other things, it stipulates that employees of controlled Mercedes-Benz Group companies who represent political interests and are not organisationally subordinate to External Affairs must register with External Affairs.

The company also has a [Donations and Sponsorships Policy in place](#). This policy states that any monetary donations to political partners above a net value of € 50,000 and any donations in kind to political partners above a gross value of € 50,000 must be approved by the full Board of Management of Mercedes-Benz Group AG. Political contributions must be assessed by External Affairs regardless of their amount.

Employees can find the policies in the policy database on the Social Intranet.

Mercedes-Benz Group AG did not make any financial or non-financial contributions to political parties during the reporting period. This decision was not based on current political or economic events. The ↗ [corporate citizenship](#) activities focused on other areas.

↗ [Annual Report 2022](#)

The receipt of public funding by the Mercedes-Benz Group in Germany can be viewed in the ↗ [Lobby Register of the German Bundestag](#). The receipt of public funding within the European Union (EU) can in turn be viewed in the ↗ [EU Transparency Register](#).

## Positions on relevant sustainability issues

### GRI 3-3

For the Mercedes-Benz Group, stakeholder engagement is one of the keys to achieving a sustainable transformation. Discussions with individuals involved in political decisions preferentially focus on finding sustainable solutions for addressing social challenges. The common interest in effective climate protection is a priority for the Mercedes-Benz Group in this regard: The Group meets its customers' expectations of emission-free mobility with forward-looking technologies and progressive luxury.

In the following, the focal topics of political representation of interests chosen in line with the sustainable business strategy of the Mercedes-Benz Group are explained in more detail.

### CO<sub>2</sub> reduction

In line with the requirements of the Paris Climate Agreement, the Mercedes-Benz Group has set itself ambitious targets to reduce its greenhouse gas emissions along the entire value chain. These targets are based on, among other things, the latest climate research findings. In accordance with the requirements of the [Science Based Targets initiative \(SBTi\)](#), the Group has defined a concrete CO<sub>2</sub> reduction path and has determined the measures it will implement to progress along this path. The conformity of this plan with the Paris Climate Agreement was confirmed by the SBTi. By joining this initiative, the Mercedes-Benz Group is underscoring its commitment to the targets of the Paris Climate Agreement.

In "Ambition 2039" the Mercedes-Benz Group has set its own targets, which are consistent with those of the Paris Climate Agreement. The Group aims to achieve CO<sub>2</sub> neutrality on the balance sheet partly including offsets in its entire new car fleet in less than 20 years. This ambition encompasses all stages of the vehicle value chain – from development and the extraction of raw materials to production, use and recycling of the products. In doing so, the Mercedes-Benz Group also involves its partners and suppliers.

Renewable energies play an important role in achieving CO<sub>2</sub> neutrality on the balance sheet partly including offsets: The Mercedes-Benz Group already produces

on a CO<sub>2</sub>-neutral basis on the balance sheet basis in its own plants worldwide. Since 2022, all of Mercedes-Benz AG's own production plants worldwide have been sourcing electricity exclusively from renewable sources. The Mercedes-Benz Group is pursuing the goal of covering more than 70% of its energy requirements in production with renewable energies by 2030 – in addition to electricity, this also includes gas and district heat, for example. The Group also aims to generate more renewable energy itself at its locations. By 2025, the Mercedes-Benz Group will invest a three-digit million euro amount in the installation of photovoltaic systems.

The Mercedes-Benz Group also plans to invest in new [Power Purchase Agreements \(PPAs\)](#) of wind turbines worth € 1 billion by 2025: In September 2022, the Group began planning the installation of a wind farm at its test site in Papenburg. This is where several wind turbines with an output of more than 100 MW, covering more than 15% of the annual electricity requirements of Mercedes-Benz Group AG in Germany, are to be erected by 2025.

### ↗ Expansion of renewable energies

The Mercedes-Benz Group welcomes all political activities worldwide that accelerate the transformation of the energy sector. The aim is to harmonise regulations across regions and countries and to enable rapid support for the expansion of renewable energies through German federal and state policy or the EU – for example in the form of loans.

### Improve air quality

The corporate responsibility of the Mercedes-Benz Group as an automobile manufacturer includes reconciling climate protection, air pollution control and individual mobility. Inner-city air quality is an important environmental aspect for the Group.

The Mercedes-Benz Group therefore supports the plan to revise the Air Quality Directive in the EU. However, a broad political discourse on the objectives of future air quality targets in cities should be held in the run-up to the decision. Among other things, it is important to present the levers and possible effects transparently. When designing future European air quality limit values, the recommendations of the World Health Organization (WHO) should be taken into account in the legislative process as part of an extended impact assessment.

The timeframe for their introduction must be carefully weighted against the technical effort and benefits. It must also be investigated which technological approaches, innovations and intermediate steps can be used to sensibly implement the EU Commission's strategic goal of ensuring pollutant-free air by 2050.

The transport sector has already initiated a host of measures in recent years to reduce the impact on air quality. The continued replacement of fleets by very low-emission or electric vehicles is part of these measures. The Mercedes-Benz Group therefore advises weighing up in advance which contributions from the individual sectors are realistic and possible, and at what cost.

The Group also argues in favour of dispensing with more severe restrictions by expanding entry bans into cities also to vehicles with extremely low to zero emissions. In the view of the Mercedes-Benz Group, a policy of prohibition is not the right way forward, as individual mobility is a valuable asset for customers and for society as a whole. Rather, each sector should make its own meaningful contribution to achieving good air quality in cities.

↗ [Climate protection](#)

↗ [Air quality](#)

### **Making cities more liveable**

Clean, safe, generally accessible and affordable mobility is a prerequisite for high quality of life in cities. To make this possible, intelligent systems are needed in order to link and coordinate the use of all modes of transport. The various means of transport should preferably be used where they offer the most benefits.

If locally emission-free individual mobility is to have a firm foothold in cities, the public charging infrastructure must be expanded in cities and along major transport arteries.

The transformation of mobility in cities is a task for society as a whole. That is why the Mercedes-Benz Group is involved in the German Urban Mobility Platform, among other things, and works on the Agora Verkehrswende Council. On this platform, representatives of industry and cities discuss urgent aspects of the mobility transformation and cooperatively derive measures.

↗ [Sustainable urban mobility](#)

### **Accelerate the expansion of charging infrastructure**

The availability of charging infrastructure plays a decisive role in the spread of electromobility, not only locally in the cities, but above all nationally. The expansion of the charging infrastructure must keep pace with the growing number of electric vehicles in order to make electric drive a real alternative to the conventional combustion engine. The Mercedes-Benz Group therefore welcomes the proposal of the EU Commission to make the installation of public charging points mandatory throughout the EU.

In order to further advance the expansion of the charging infrastructure, Mercedes-Benz AG is pursuing strategic partnerships – for example with the Charging Interface Initiative e.V. (CharIN), founded in 2015. This worldwide alliance with members from the entire cross-industry value chain is driving forward the deployment of electromobility on a global scale. Mercedes-Benz AG is a founding member and a member of the CharIN steering committee. Within the framework of this partnership, it advocates internationally uniform charging standards for electric vehicles of all types – cars, trucks and buses.

↗ [Charging infrastructure and digital charging services](#)

### **Improving traffic safety**

Vehicle and traffic safety were, are and will remain focal points in the development of Mercedes-Benz vehicles. With its political advocacy, the Mercedes-Benz Group is helping to set the framework for further improvements in traffic safety, for example through automated driving.

Assistance systems and automated driving can help to make road traffic safer and take the strain off drivers. The Mercedes-Benz Group is therefore committed to further developing the legal framework for the use of assistive and automated driving systems and harmonising it across borders. The Group is taking a leading position in the development and introduction of suitable technologies for this purpose and is striving to expand the range of possible applications responsibly. At the end of 2021, the Mercedes-Benz Group achieved another milestone on this path and became the world's first car manufacturer to receive an internationally valid system approval for highly automated driving ↗ [SAE Level 3](#). At the end of 2022, the Group received the world's first approval for the standard operation of an autonomous driverless parking and manoeuvring system SAE Level 4 in a multi-storey car park in Germany.

In addition, the Mercedes-Benz Group is participating in the Verification and Validation Methods (VVM) research network for automated vehicles of SAE Level 4 and 5. As part of a project, the network is developing a system and methods to ensure the safety of fully automated and driverless driving functions and vehicles in urban areas. The project is funded by the German Federal Ministry for Economic Affairs and Climate Protection.

#### ↗ Assistance and safety systems

### Respect for human rights and due diligence in the supply chain

For the Mercedes-Benz Group, respect for human rights is a fundamental component of responsible corporate governance and is anchored in its sustainable business strategy. It is its aspiration and a concrete goal that human rights should be respected in all corporate companies and observed by suppliers.

In February 2022, the EU Commission presented a legislative proposal on rules for respecting human rights and the environment in global value chains: the EU Directive on corporate sustainability due diligence. Similar to the German Supply Chain Due Diligence Act (LkSG) of July 2021, the EU bill aims to prevent human rights and environmental abuses in companies' value chains. The Mercedes-Benz Group welcomes the introduction of the German LkSG and supports the EU's goal of establishing due diligence obligations on a common basis throughout the EU accordingly.

The Mercedes-Benz Group also promotes respect for human rights along its supply chains through its policy initiatives and partnerships. At the same time, it is further developing its own Human Rights Respect System (HRRS) and adapting the related internal processes to enhanced corporate due diligence requirements.

#### ↗ Human Rights Respect System (HRRS)

### Free trade

For the Mercedes-Benz Group – as a globally positioned Group with sales, production, procurement and research and development in a large number of markets – the international exchange of goods and services is of great importance. It therefore supports free, fair and rule-based trade.

In order to maintain and expand the ↗ multilateral trade order, the Mercedes-Benz Group is in favour of strengthening the World Trade Organization (WTO) – especially against the background of increased ↗ protectionist developments on the world market. This is essential for ensuring certainty in the trade of vehicles and primary products. Free trade agreements also play an important role in this context. The abolition of tariffs and non-tariff trade barriers, as well as cooperation on standardisation, investment protection and protection standards, commitments to protect the climate and workers' rights, benefit businesses and consumers alike.

### Sustainable financing

The Mercedes-Benz Group supports the EU's goal of building a corporate sustainability framework that facilitates investment for sustainable growth. In its view, the ↗ EU taxonomy should therefore support business in financing the transformation by providing reliable access to the capital market.

At the same time, there are uncertainties as to how the EU taxonomy should be implemented and interpreted. External Affairs is working within the European industry associations to draw the attention of the European Commission to this shortcoming. It calls for important and reliable guidelines and clear rules.

#### ↗ EU taxonomy

## Measures

### Dialogues and events

#### GRI 2-29

Within the framework of the responsible political representation of its interests, the Mercedes-Benz Group continuously seeks to establish and maintain a dialogue with government representatives and politicians at its locations worldwide, and it continued to do so in the reporting year. The Mercedes-Benz Group also shares ideas and information with other interest groups and individuals, including groups that are active in politics and society, opinion leaders, experts, citizens, representatives from business and ↗ non-governmental organizations (NGOs). Together with these stakeholders, the Mercedes-Benz Group supports the opinion-forming process at both national and international level in order to promote the sustainable business goals and the

transformation of the automotive industry. It also addresses future-oriented questions relevant to the Group that go beyond the core automotive issues and feeds these back to the Group management in the context of strategy work.

To this end, the Mercedes-Benz Group addresses the public at its own events on current topics. Depending on the communication format, either the specialists of the External Affairs department or other employees who act as political stakeholders for the Mercedes-Benz Group conduct the respective event – managers from individual locations usually also participate.

At the same time, the Group ensures a continuous exchange of knowledge with a wider community through participation in external dialogue formats. The involvement of the Mercedes-Benz Group in various associations, committees and sustainability initiatives also contributes to this exchange. In addition, Group representatives hold subject-specific expert discussions with politicians.

## Own events

### **GRI 413-1**

The Mercedes-Benz Group engages in dialogue on its own initiative with stakeholders who wish to work with it on the sustainable transformation of the automotive industry. **In order to facilitate open discussions with a wide range of interest groups, External Affairs also conducts its own events at regional, national and international levels.**

**Within the framework of its responsible approach to the representation of its interests and the forward-looking handling of risks, the Mercedes-Benz Group engages in a targeted dialogue with local stakeholders from government and society when planning new projects or when the need arises to address issues relating to its sites. Board members are also involved in the local dialogue. Through stakeholder mapping, the positions of relevant stakeholders are analysed in advance. The main objective here is to reconcile the interests of the sites in question with the wishes and concerns of local residents and establish conditions that benefit all of the parties involved. Further information on stakeholders along the supply chain can be found in the chapter Social Compliance.**

### **↗ Social Compliance**

The Regional Political Dialogue is a long-standing event format from External Affairs. The challenges and opportunities associated with the transformation of the automotive industry, as well as the current corporate strategy were discussed with representatives of state and local governments in July 2022.

At the end of May 2022, the Mercedes-Benz Group also laid the symbolic foundation stone for a new centre of excellence on the site of its main plant in Stuttgart-Untertürkheim together with the Prime Minister of Baden-Württemberg and other local politicians. In future, research will be conducted there on batteries and battery cells and new battery generations will be developed. The “Mercedes-Benz eCampus” is to be gradually put into operation from 2023 and will initially house, among other things, a factory for the small-scale production of battery cells.

In September 2022, the Mercedes-Benz Group opened the “Mercedes-Benz Digital Factory Campus (MBDFC)” in the presence of the Governing Mayor of Berlin: with a series of state-of-the-art pilot lines and test cells, the campus bundles the development, testing and worldwide introduction of software applications for vehicle production. At the same time, the campus will become a training and qualification centre for innovative approaches with regard to the digital transformation in the global production network of the Mercedes-Benz Group.

### **↗ Dealing with new technologies**

The Mercedes-Benz Group also engaged itself at the national level. In May 2022, the Mercedes-Benz Group presented its vision of advanced, self-determined and more sustainable mobility in Berlin with its “Vision EQXX” experimental vehicle. It discussed the performance parameters such as energy efficiency or range, which set new standards, with the invited representatives of NGOs, foundations, associations and science. In addition, the Mercedes-Benz Group discussed together with those present the political framework conditions that are necessary to accelerate the transition to electromobility and to support the transformation of the automotive industry.

The Mercedes-Benz Group also cultivates political exchange outside Germany and is committed to environmental and climate protection with innovative solutions.

For example, in April 2022, the first renewable natural gas plant in South Carolina was inaugurated at the Mercedes-Benz Vans plant in Charleston together with the governor of the US state of South Carolina. This gas is used to maintain the temperature of the building and in the operation of the paint shop.

In August 2022, the Mercedes-Benz Group and the Canadian government signed a memorandum of understanding (MoU) to deepen cooperation across the automotive value chain. As part of a business delegation, the Group's Chief Development Officer travelled to Toronto together with the Chancellor and the Minister of Economics of the Federal Republic of Germany. The aim of the MoU is to utilise economic opportunities within the Canadian supply chain and thus to promote the development of electromobility.

In addition, the employees of Mercedes-Benz China are committed to dialogue between science and business: At the end of September 2022, a discussion round was held with professors and students from Tsinghua University in Beijing. Representatives from Mercedes-Benz China presented the sustainable corporate strategy and explained the challenges in global supply chain management.

The annual "Sustainability Dialogue" is another example of a Mercedes-Benz Group event format at the international level. In its "Partnerships" workshop in 2022, External Affairs worked with stakeholders from society, politics and industry to develop criteria for good, targeted partnerships.

#### [\*\*↗ Sustainability Dialogue\*\*](#)

### **External events**

#### **GRI 413-1**

Along with its own events in connection with the political representation of its interests, the Mercedes-Benz Group also participates in external events in order to engage with various stakeholders. Among other things, the Group participates in the platform for the state government of Baden-Württemberg's strategic dialogue for the automotive industry.

With the title "On the road to climate neutrality: Powering zero-emission vehicles", the online political exchange format "POLITICO Spotlight" took place in

March 2022. The topic of this event, initiated by Shell plc and the Mercedes-Benz Group, was the "EU Regulation on the Development of Alternative Fuel Infrastructure (AFIR)". Against this background, the EU Transport Commissioner, the rapporteur on the AFIR Regulation in the European Parliament and the CEOs of Shell plc and the Mercedes-Benz Group also discussed the question of how the development of a public charging infrastructure in the EU can be accelerated.

Furthermore, the Mercedes-Benz Group participates, among other things, in the platform "Strategic Dialogue for the Automotive Sector Baden-Württemberg". At the kick-off dialogue in Stuttgart in May 2022, the focal points for the year were defined. At the suggestion of Mercedes-Benz Group AG, the mission "Transfer Qualification and Readiness for Change" was launched. This will address qualification concepts, changes in the focus of activities and the strengthening of employees' willingness to change.

In addition, Mercedes-Benz Group AG took part in a follow-up event – the Top Level Meeting of the Strategy Dialogue – in Brussels in November 2022. This conference brought together experts, decision-makers and an interested public to exchange views on current challenges, possible solutions and best-practice examples with respect to the transformation.

In April 2022, the German Climate Economy Foundation (Stiftung KlimaWirtschaft) invited representatives from politics and business to a panel discussion. Together with the German Federal Minister of Economics and Climate Protection, the President of the Federal Environment Agency and other participants, the Chairman of the Board of Management of the Mercedes-Benz Group there discussed the question: "How can we achieve success in transforming our economy towards climate neutrality?"

The Group was also involved in the expert panel "Transformation of the Automotive Industry" of the German Federal Ministry of Economics and Climate Protection. This panel is part of the strategy platform envisaged in the coalition agreement and consists of a total of 13 members. External Affairs is actively involved in two working groups: "Decarbonisation of automotive value chains" and "Smart car: software, digitisation, automation". The working groups are to develop specific

recommendations for action on ways of achieving the goal of climate neutrality and securing added value as well as jobs and training places in Germany as a location for the automotive industry.

At the “Future Mobility Summit” in September 2022 in Berlin, a congress for mobility decision-makers, the Mercedes-Benz Group presented its interpretation of innovative and sustainable [“last mile delivery”](#) by means of its SUSTAINEER concept vehicle and discussed further ideas for solutions with representatives from politics and business.

The Mercedes-Benz Group was also involved in the political dialogue at the international level: in June 2022, the electric vehicle symposium “Charging Forward” took place in Washington D.C. Representatives from the US Department of the Environment and the Department of Energy had the opportunity to examine various electric vehicles such as the Mercedes-Benz EQS. Afterwards, representatives of the ministries exchanged views with experts from the automotive industry on the ramp-up of electromobility and the expansion of the charging infrastructure. A representative from the External Affairs office in Washington D.C. represented the Group in the discussion.

### **Expert discussions with politicians**

What framework conditions are necessary to achieve climate neutrality? Ongoing political dialogue on this issue with decision-makers is a cornerstone of the Mercedes-Benz Group's representation of interests.

At the beginning of the reporting year, representatives of the Mercedes-Benz Group spoke with a member of the European Parliament as well as a member of the German Bundestag from Bündnis 90/Die Grünen about the Group's “Electric only” strategy and the necessary political framework conditions. The focus of the discussion was on the challenges and expectations of the government regarding a Europe-wide charging infrastructure.

In June 2022, a representative of the External Affairs department accepted the invitation of the Parliamentary Advisory Council for Sustainable Development of the German Bundestag and, as an expert on sustainability in the transport sector, presented the “Electric only” strategy of the Mercedes-Benz Group. He pointed out

the importance of sustainability for the Mercedes-Benz Group along the entire value chain.

The head of External Affairs also discussed the Skilled Workers Immigration Act with the CDU/CSU parliamentary group in July 2022. In doing so, he pointed out the problem of a lack of political and legal framework conditions in the area of remote working: Tax, social security and labour law risks make it difficult for the Group to recruit skilled workers abroad whose know-how is needed to implement the transformation as quickly as possible.

In September 2022, the Mercedes-Benz Group exchanged views with representatives of the European Commission's Directorate-General for Financial Stability, Financial Services and Capital Markets Union on sustainable financing and the reporting requirements of the EU taxonomy. The Group considers reliable guidelines and clear rules to be imperative for the correct implementation and reliable comparability of the reporting.

In November 2022, the External Affairs office in the USA took part in the “Roundtable” of the US Treasury Department together with other representatives of the automotive industry. The topic was the implementation of the [“Inflation Reduction Act”](#). This law includes a large package of energy- and climate-related regulations as well as tax incentives aimed at strengthening the US market for electric vehicles and the supply chain for greener vehicles.

### **Engagement in sustainability initiatives**

#### **GRI 2-28**

In addition to the direct dialogue with politicians and government representatives and representatives of interest groups, who promote sustainable development, the Mercedes-Benz Group remained active in various sustainability initiatives and networks in 2022. Some of the most important initiatives here are the [“UN Global Compact \(UNG\)C”](#), econsense -- Forum Nachhaltige Entwicklung der Deutschen Wirtschaft e.V. -- Forum for Sustainable Development of German Business, and the [World Business Council for Sustainable Development](#).

The Mercedes-Benz Group's commitments with these engagements also serve as guiding principles in the representation of interests.

#### **↗ Industry associations and initiatives**

## Engagement in associations

GRI 2-28

The Mercedes-Benz Group also represents its interests by participating in working groups of various associations – for example the European Automobile Manufacturers' Association, the Alliance for Automotive Innovations, the German Association of the Automotive Industry and the Agora Verkehrswende transport transformation initiative.

The latter is a  think tank for climate-neutral mobility. In dialogue with politics, business, science and civil society, the organisation works to reduce greenhouse gas emissions in the transport sector to zero. To this end, the Agora Verkehrswende develops scientifically based analyses, strategies and proposed solutions.

The Mercedes-Benz Group is convinced that associations play a key role in the political opinion-forming process. Therefore, it uses their platforms to engage with policy-makers and other stakeholders. In doing so, it advocates for cleaner, safer and smarter transport.

Associations represent different industry positions: Some are very ambitious, others are moderate, and in some cases they represent only the lowest common denominator of an industry made up of competitors with sometimes very different business strategies. However, the coordinating function of associations is always of high importance – not only for the position of the industry, but also for data collection and for the provision of information for policy-makers and regulatory authorities.

In crisis situations, such as the gas supply in Germany during the 2022/2023 heating season, instruments were developed together with associations to support the government's supply goals on the one hand and at the same time to secure the energy required for the productivity of the economy. In addition, the associations play a crucial role in initiating and steering joint activities. For example, they can play an important role in the development of charging infrastructure by arranging self-commitments.

 [Memberships, associations and initiatives](#)

## Effectiveness and results

### Effectiveness of the management approach

GRI 3-3

External Affairs reports on its activities to the Integrity and Sustainability Advisory Board; feedback from members of this board is incorporated into its planning. In addition, the department's activities and analyses are a regular part of the Board of Management's reports to the Supervisory Board of the Mercedes-Benz Group.

The effectiveness of dialogue and active participation is particularly evident in the debate on draft legislation and political projects at the association level: Through its association work, the Mercedes-Benz Group ensures that the legitimate interests of the Group can be taken into account in the legislative process, and it can also address future regulations at an early stage and set the appropriate strategic course. This gives companies and politicians the opportunity to develop concepts for the sustainable transformation of the automotive industry.

This management approach, which aims at a constructive exchange between stakeholders and the Mercedes-Benz Group, is effective when the Group is economically successful, is perceived as sustainable and its products are accepted as part of the solution to existing challenges.

## Results

### Results of the lobby evaluation

 During the reporting year, the Mercedes-Benz Group achieved its goal of making lobbying activities comprehensible and verifiable on the basis of defined evaluation criteria. The Group developed a catalogue of criteria that can be used to assess whether its lobbying positions correspond to its strategy, for example.

 The Mercedes-Benz Group also achieved another milestone in 2022 – “continuing stakeholder interviews and deriving necessary measures for the future political representation of its interests”. In the reporting year, the Wittenberg Centre for Global Ethics (WZGE), which was commissioned with the evaluation, conducted 20 anonymous interviews with representatives of various stakeholder groups – including from academia and politics as well as from NGOs and with investors.

The stakeholder interviews revealed that the Mercedes-Benz Group is viewed as a trustworthy discussion partner in the political realm. Nevertheless, the interviews still revealed potential for improvement. The interviewees saw potential for improvement with regard to transparent communication of [the advocacy positions](#), the publication of positions on the role of Mercedes-Benz in society, the topics of human rights and data protection, and the introduction of a code of principles for responsible representation of interests.

In order to effectively utilize its potential for improvement, the Group already took numerous measures in 2022 to strengthen the credibility of the Mercedes-Benz Group through transparency of its political positions on sustainability issues: for example, [the Mercedes-Benz Group published further information regarding its advocacy positions on the most important issues affecting the Group and its stakeholders on the Internet](#). In addition, the Mercedes-Benz Group published and established its advocacy principles.

In the context of the representation of interests, the Mercedes-Benz Group brings its expertise to bear in order to achieve the greatest possible intersection between its own interests and those of the public –

and thus to be part of the solution. With the aspiration “the broader the better” and “the earlier the better”, the Group wants to be an honest advisor. As an internal guideline, the Mercedes-Benz Group also strives to be able to answer questions about its activities convincingly at all times.

All these measures – as well as the [“Mercedes-Benz Group Climate Policy Report”](#) published for the first time in March 2022 – promote transparent communication within the framework of a credible and trusting political representation of interests.

### **Results in partnerships**

The Mercedes-Benz Group is also continuously further developing its partnership portfolio in order to achieve its sustainable business targets. During the Sustainability Dialogue in 2022, participants in the Partnership workshop – including representatives of the Advisory Board for Integrity and Sustainability as well as from politics, business and NGOs – defined criteria for ensuring effective partnerships. These include the following: a clear target for the partnership, a systematic approach, defining performance measures, building up mutual trust, an open exchange of knowledge (open source) and the scalability of the approaches to a solution.

# ENVIRONMENT

# “We need to start decoupling economic growth and natural resource consumption now”

How can today's batteries be used as mines for tomorrow's needs?

Mercedes-Benz is addressing this question together with technology partners and scientists in a pilot factory that is currently being built in Kuppenheim in southern Germany. Manuel Michel, Head of Battery Recycling, reports on the most important tasks and explains why high-tech processes contribute to social sustainability.



**Manuel Michel**  
Mercedes-Benz AG

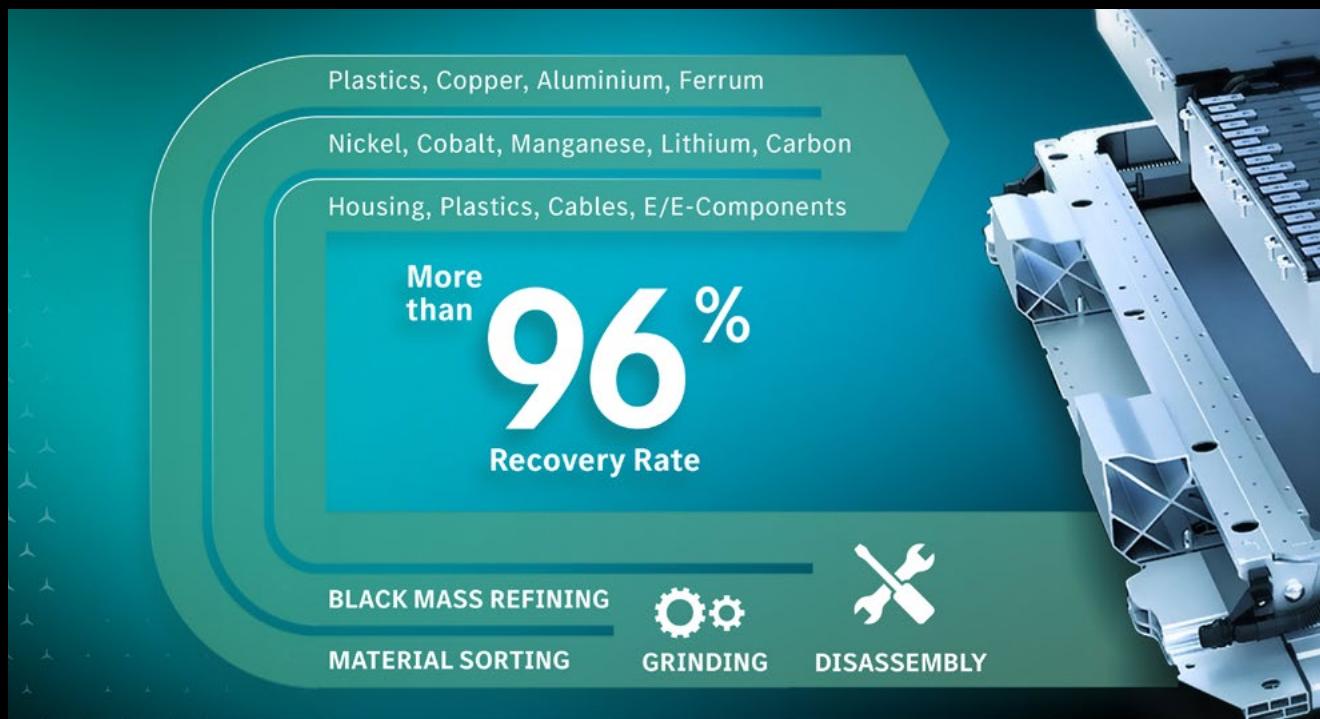
## Mr Michel, why is Mercedes-Benz investing a double-digit million sum in order to develop its own battery recycling capability?

The core aspect was to build a sustainable system according to the circular economy. In our pilot factory in Kuppenheim, we want to put our vision into practice. Not only will the energy supply be CO<sub>2</sub>-neutral on the balance sheet, additionally we want to recover as many raw materials as possible from batteries without any loss of quality. With this ambition, we are going beyond the legal definition of recycling, which, for example, also includes the incineration of materials as thermal recycling. We will avoid downcycling and

produce recyclates with the highest possible degree of purity instead. In this high-tech facility, which is currently under construction, we will develop important know-how with experts from business and science. Through this facility, we will make an important contribution to the transformation of our Group.

## Which challenges are we facing when it comes to battery recycling?

In certain areas, we are still in the early stages, such as the return and transport of batteries. One question we ask ourselves is how and by what means will the



Hydrometallurgical: Innovative mechanical process increases the recycling rate to more than 96 percent

batteries come to us? Then there is also the question of further optimising the recycling process. As an example, we work with a two-stage process that avoids incineration (see info box). This is where our partners come into play, because after all, we are experts in the development and production of vehicles, and less specialists in chemical processes in recycling. Another challenging question for us is how we need to develop and design future batteries in order to achieve optimal recyclability. And last but not least, it is a matter of reintroducing battery-capable secondary raw materials such as cobalt, nickel or lithium back into the supply chain in order to achieve full circularity. This may sound easier than it is, as raw material processing occurs at an early stage in the value chain.

#### **Recycling also consumes resources. How much of an environmental advantage does it provide compared to the use of primary raw materials?**

The answer is very complex and depends on many factors. The process itself plays a role, but of course, so does the specific composition of the battery and the origin of the primary raw materials. In various

lifecycle assessments, our colleagues from Corporate Environmental Protection have calculated that the CO<sub>2</sub> footprint of a battery made entirely from recycled materials is significantly smaller compared to a conventionally produced battery.

#### **How do you evaluate battery recycling from a social perspective?**

It is part of our social responsibility to conserve scarce resources and keep materials in the loop for as long as possible. Innovative recycling processes help in achieving this goal. They are a third important pillar alongside reprocessing and the longest possible reuse, for example in a stationary energy storage system. At present, we expect the relevance of battery recycling will increase especially from the 2030s onwards, when the vehicle batteries used today will be successively phased out. We must now begin with the development of corresponding processes in order to decouple economic growth and resource consumption more strongly.

**How do you build up the expertise at the new location - do you primarily retrain employees for the new job profiles?**

Yes, this works very well. As in the existing plants, we need production planners, process engineers and employees who can operate high-tech facilities. Even employees who have worked in transmission assembly for decades can be qualified for new job profiles with the help of targeted learning paths for dealing with battery technologies. The Mercedes-Benz Group offers corresponding opportunities with its Turn-2Learn training programme. In addition, colleagues from cross-functional areas such as human resources, maintenance and controlling also contribute. These jobs will continue to exist.

**In the longer term, with battery recycling, you are building up a source of raw materials that will make you less dependent on volatile markets, but also on the mining of critical raw materials. What does this partial withdrawal mean for the people at the beginning of the supply chain?**

This important question highlights the complexity of the transformation towards a fully electric future. Finding solutions for such changes can only be achieved through collaboration. A multitude of partners along the entire value chain and beyond must shoulder the responsibility and find ways for the transformation to succeed while ensuring that people along the value chain are included. Innovative concepts and pioneers who take the first steps in their respective areas of influence are very decisive factors in this regard.

**The process**

The basis of the new recycling factory is an innovative mechanical-hydrometallurgical process that completely avoids energy- and material-intensive combustion processes. Instead, the materials are mechanically disassembled. Subsequently, chemical compounds are broken down to recover especially the valuable components of the battery cell as pure sorted metals. The patented recycling process currently achieves a recovery rate of at least 96 percent to be further increased by 2025 together with technology partners.

**Manuel Michel**

has worked intensively on the circular economy and recycling of lithium-ion battery systems since 2019. He is responsible for the pilot plant in Kuppenheim within Mercedes-Benz Group AG. As an industrial and mechanical engineer, he was previously responsible for the optimisation of combustion engines in Research & Development at Mercedes-Benz.

# “Leaving no one behind sounds like a simple thing. Actually, it's not”

The G20 members, first and foremost China, the USA, and the EU, have an important role to play in achieving global sustainability goals. What contribution are they currently making and what challenges are associated with the transformation to a climate-neutral society? Sustainability expert Changhua Wu talks about refined ESG strategies, approaches to address social inequality and the power of connectivity.



**Changhua Wu**  
Expert for Climate Protection Transformation Processes

**After the world economy recovered from the effects of the Corona pandemic in 2021, global CO<sub>2</sub> emissions rose to a new record high. What governmental levers of action do you observe to reverse this trend?**

There are a few dimensions to look at. Leading economies use the climate change agenda for competition decoupling. That is unfortunate, as we need to work with each other to achieve the committed climate targets by 2030 and reduce emissions by 43 percent over the 2019 levels. Without a closer collaboration between the largest economies, we will not be able to deliver.

Even though some economies are competing against each other, they share many similarities in how to advance the agendas. One example, the U.S., with the Inflation

Reduction Act, that is quite similar to the industrial policy from China. On the other hand, China has been looking very closely at the EU practice. So, it's an interesting dynamic amongst the major economies, especially.

As a third perspective, I would like to mention China's journey to address climate change during the last three decades. In China, we started from fossil fuels and then moved towards renewable energies in a rather isolated way of thinking, solely focussing on the clean energy transition. Nowadays, China has managed to step into a more systematic way of looking at the sustainability landscape. Of course, we need to address the decarbonisation of the energy systems, but we also need to look at resources, material usage and the industries. I think, that's where the government of China gets it right, they are using those levers of action and deliver the outcomes.



China's rapid economic growth has also highlighted the importance of the goal of a circular economy.

### What role does circular economy play in the Chinese automotive and supplier industry?

Due to the rapid economic growth, China has felt the constraints that come with the lack of resources. Therefore, moving towards a circular economy is an important part of the national transition. The government has even set recycling targets in tonnages, not percentages, to be reached by 2025.

For the Chinese automotive supplier industry, the circular economy is not a new concept. Now, as the first generation of battery electric vehicles (BEV) is retiring, their focus is on batteries. So, while cities are moving towards 100 percent BEV, there is already a market and an organic development of demand and supply. Of course, companies continue to use mined materials. However, mainstream players have already recognized that the circular economy is going to play a critical role, particularly around the battery materials. In the future, maybe not yet by the end of this decade, 95 percent of the battery materials could be met by circularity and recycled materials. And this is going to be shifting the dynamics of the resources dramatically.

### How can partnerships within the automotive supply chain be used to advance global sustainability goals for a mutual benefit?

If there is a common ground around ESG topics, cooperation becomes a win-win scenario. All those leading companies within the green mobility landscape should join forces to accelerate the progress towards zero

carbon and challenge those market players that are still relying on fossil fuels. Of course, there are obstacles, especially for Chinese companies in the supply chain. On the one hand, they are leading players, for instance in metals processing and in manufacturing battery cells. That's the strength, Chinese industries have already built up. On the other hand, from what I observe, until recently, there was no adequate attention paid to sustainability, both from an environmental and a social perspective. So, for Mercedes-Benz actually, I'm delighted to see the company has its principles and ambitious goals. It shows a systematic approach to electromobility and is proactively working with the companies along the supply chain to overcome those issues, promoting innovative ways and alternatives. So, collaboration sounds wonderful, but it's complex. However, I see the trends unfolding there.

### To address the social consequences of the transformation and to leave no one behind, the EU established the “Just Transition Mechanism”. Do you see similar efforts in China and the USA?

Politically, that's pretty much a shared vision. However, considering the federal constitution of the U.S. or the EU with its 27 member states, the implementation is complex. In my observation, comparatively speaking, the Chinese political system is facing less barriers in terms of the nationalised endeavour to address a particular challenge in the transition context.

### How do you evaluate the current efforts to make sure, no one is left behind?

It's hard to draw a clear conclusion at this moment. My general impression is that social challenges are increasing, with more and more people expressing their dissatisfaction. Leaving no one behind sounds like a simple thing. Actually, it's not. It's pretty much connected with a lot of things. It's not only about financial compensation and upskilling workers. Basically, we have to deal with some typical mechanisms of industrialisation. On a national level, the industrialisation is driven by cheap labour and low environmental constraints. The emerging economy becomes, globally speaking, the workshop for states that would have to



Battery production at Beijing Benz Automotive Co. Ltd. (BBAC) in Beijing

buy labour more expensively in their own country. But at a certain point in the economic growth process, the industrialisation part gets more sophisticated in terms of technology, value chains, etc. Low-end manufacturing moves away to other parts of the world. Considering the bigger picture of the transition, it leaves a lot of people behind. It's an ongoing transition, and policymakers have so far failed to take enough actions to make sure no one is left behind.

#### **What concrete action do you expect from a global company like Mercedes-Benz in terms of a just transition?**

I see that the company is continuously sharpening its activities of sustainability by lifting its goals and targets. It is putting a lot of efforts in the transition from combustion engines to 100 percent electric vehicles, especially regarding their own workforce and in alignment with German policymakers to leave no one behind. In this respect, the company is meeting my expectations. By saying this, I also see some challenges knocking at the door. When it comes down to the value chain, when you go beyond Germany and the EU markets, it's important to keep up the fair transition agenda and try to

collaborate on this with local decision makers and partners along the supply chain. That's where I would like to see even more clarity of the company down the road.

#### **What gives you hope that the global community will overcome the hurdles on the way into a more sustainable future?**

First, it's an ongoing effort. All countries need to thrive for a more just and inclusive society. We need people's awareness and behavioural changes as well



In order to be successful as a company in a digital and electric future, employees must be comprehensively qualified.

to overcome these barriers. So, to really get each individual on board, we should use tools that have the power to make everyone act in sync together. The responsible use of social media is a great possibility to be connected and to raise awareness. And there are some good examples, in which companies use this power to raise awareness for sustainability issues, and to organise change. For instance, there are some effective initiatives around plastic collection. It may sound like a tiny thing, but it's a step forward. And once, it reaches enough people, it can become a fashion. I believe that many of these actions aimed at making the world more just and inclusive will end up creating a new reality.

### **Changhua Wu**

is a policy advisor, analyst and climate change transformation strategist specialising in China. She currently holds the position of China Director at TIR Consulting, whose president is the economist Jeremy Rifkin, and is also Chief Strategist at CN Innovation and CEO of The Future Innovation Center Beijing. Changhua Wu is member of the Advisory Board for Integrity and Sustainability at Mercedes-Benz Group. She has master's degrees in journalism, environmental policy and economics from universities in China and the United States.

## ENVIRONMENT

- 90 Climate protection
- 117 Air quality
- 125 Resource conservation

This Sustainability Report also includes the content audited in the Non-Financial Declaration. The relevant passages in this Sustainability Report are marked in **blue font colour** in the continuous text. Audited graphs and tables are also referenced accordingly via footnotes. Unless explicitly noted, this content was audited with reasonable assurance. Unless marked with footnotes, graphs and tables have not undergone external audit, regardless of the colors used.



Climate protection

## Materiality and goals

GRI 3-3

Targets	Target horizon	Status as of 2022
<b>Climate protection in vehicles and services</b>		
Mercedes-Benz offers battery-electric vehicles (BEVs) in all segments where the brand is represented	2022	13 models
Increase the share of plug-in hybrids and all-electric vehicles to up to 50% <sup>1</sup>	By mid-decade	Cars 16% Vans 4%
All new vehicle architectures are electric	2025	According to plan
There is an all-electric alternative for every model offered by Mercedes-Benz	2025	According to plan
Mercedes-Benz is all-electric — wherever market conditions allow	By the end of the decade	According to plan
Reduction of the CO <sub>2</sub> emissions per car in the new vehicle fleet by at least 50% along all stages of the value chain <sup>12</sup>	By the end of the decade	According to plan
A fleet of new Mercedes-Benz vehicles that are CO <sub>2</sub> -neutral on the balance sheet along all stages of the value chain	2039	According to plan
<b>Climate protection in the supply chain</b>		
Mercedes-Benz plans to procure only balance sheet carbon-neutral production materials	2039	86% of suppliers <sup>3</sup>
<b>Climate protection in production</b>		
CO <sub>2</sub> -neutral on the balance sheet production in company-owned Mercedes-Benz production plants worldwide	2022	Achieved
Reduce CO <sub>2</sub> emissions in the Mercedes-Benz plants (Scope 1 and 2) by 50% <sup>4</sup>	2030	Achieved
Increase the share of the energy requirement in own Mercedes-Benz production plants which is met through renewable energies: - Cars 70% - Vans 80%	2030	According to plan

1 When market conditions allow.

2 Compared to 2020, based on the entire value chain.

3 Measured on the basis of the annual procurement volume and assured by signature.

4 Compared to 2018.

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. About one fifth of all greenhouse gas emissions in Europe are produced as a result of the transport of people and goods on streets and roads. The Mercedes-Benz Group is taking deliberate measures to counteract this trend and has made climate change mitigation a core element of its business strategy. The Group's ambition is to make the entire Mercedes-Benz new vehicle fleet CO<sub>2</sub>-neutral on the balance sheet across all stages of the value chain by 2039.

In order to achieve this goal, the Mercedes-Benz Group is transforming the products and services that are at the heart of its business activities. The company also takes into account climate change mitigation in all of the life cycle phases of its automobiles — from the supply chain and its own manufacturing operations 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.

## CO<sub>2</sub> neutrality on the balance sheet along the value chain



The company's goal is to cut by at least half the CO<sub>2</sub> emissions per passenger car along the entire value chain by the end of this decade, compared to 2020. The goal of reducing the CO<sub>2</sub> emissions of the Mercedes-Benz new car fleet by 40% compared to 2018 in relation to the use phase ([well-to-wheel](#)) has been confirmed by the [Science Based Targets initiative \(SBTi\)](#).

The most important levers for this are electrification of the vehicle fleet, charging with green electricity, improving the battery technology, the [decarbonisation](#) of the supply chain and extensive use of renewable energies in production.

The Mercedes-Benz Group confirmed its corporate goal of improving the framework conditions for decarbonising the economy and society worldwide by joining the initiatives ["The Climate Pledge"](#) and ["Transform to Net Zero"](#) in 2020.

The Mercedes-Benz Group uses various future scenarios to assess the robustness of its climate-related activities and the associated risks and opportunities. In doing so, it distinguishes between different types of risks when identifying climate-related risks within the scope of a

scenario analysis: transitory climate risks are related to the transition to a low-carbon economy and result from changes in political parameters, technological developments and changing markets. To obtain a well-founded 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 \(IEA\)](#). The scenarios are analysed, broken down and used as a reference for comparison with company-specific reduction paths, among other things.

Moreover, it is important for the Mercedes-Benz Group to know the long-term physical climate risks to its business operations. This refers to the impact of risks associated with the increasing intensity of extreme weather events as well as changes in climatic conditions – for example storms, floods, heavy precipitation and temperature rises. As a global company, the Mercedes-Benz Group has locations all over the world. In addition to assessing current threats from extreme weather events, long-term developments are also analysed and prioritised on the basis of different scenarios, including the [IPCC SSP5-8.5 scenario](#).

# Climate protection in vehicles and services

## Strategy and concepts

### All-electric future

GRI 2-23

The Mercedes-Benz Group believes that the complete electrification of its product range is the most important lever for making its entire new vehicle fleet CO<sub>2</sub>-neutral on the balance sheet across all stages of the value chain by 2039. By the end of this decade, the Mercedes-Benz Group wants to be all-electric wherever market conditions allow. The strategic step to “Electric only” will accelerate the transformation of Mercedes-Benz to an all-electric and software-driven future.

However, CO<sub>2</sub> emissions are not only produced during the manufacture of components for purely battery-electric vehicles, but also during the generation of the charging current. Against this background, the “Green Charging” initiative is a further step on the road to CO<sub>2</sub>-neutral on the balance sheet 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.

#### ↗ Green charging with Mercedes me Charge

As early as November 2021, the Mercedes-Benz Group underscored its commitment to this transformation during the COP26 UN Climate Change Conference. In the ↗ “COP26 declaration on accelerating the transition to 100% zero-emission cars and vans”, the Mercedes-Benz Group undertakes to work together with other companies, cities and governments to achieve CO<sub>2</sub>-neutral transport for the future. The company is convinced that the electrification of vehicles will be instrumental in accelerating the transformation.

With “Ambition 2039”, the Mercedes-Benz Group not only wants to contribute to an on the balance sheet climate-neutral world – the group also wants to inspire

its customers to welcome this on the balance sheet climate-neutral future. For many of them, it is important that products they use do not cause any damage to the environment and that to achieve this they do not have to make any compromises in their everyday lives. With its product range, the company aims to meet both customer demands.

### Regulatory framework for CO<sub>2</sub>-neutral road traffic

GRI 3-3

For Mercedes-Benz Cars and Mercedes-Benz Vans, there are legal regulations covering binding targets for the average fleet consumption and CO<sub>2</sub> emissions for new vehicle fleets. The high-volume markets in China, Europe and the USA are particularly regulated. However, such fleet regulations should not be seen as stand-alone solutions. Instead, they are an important part of a broader regulatory environment, because of the following general rule: effective and ambitious fleet regulations must be complemented by coherent policy measures such as promoting the development of the charging infrastructure and the expansion of renewable energies. In addition, other framework conditions such as fiscal and non-fiscal incentives are needed in order to ensure that mobility remains affordable. The Mercedes-Benz Group therefore strongly favours a political and regulatory framework that accelerates the transition to CO<sub>2</sub>-neutral mobility. This also includes gradually integrating the transport sector into the emissions trading.

### Environmental aspects in product development

GRI 3-3

The Mercedes-Benz Group has set itself the goal of developing products that are especially environmentally friendly and energy-efficient in their respective market segments. The company's own environmental and energy guidelines define how it intends to achieve this goal. The Mercedes-Benz Group sets itself clear targets and has defined corresponding metrics which

indicate how successful it is in achieving them. This applies to every series and to every individual product. Product development plays a key role in this regard: the impact of a vehicle on the environment – and thus what CO<sub>2</sub> emissions it causes – is largely determined in the early stages of development. The earlier the company takes environmental aspects into account, the more efficiently it can reduce the ecological impact of its vehicles.

## Responsibilities and data transparency

GRI 2-24

An interdisciplinary team of environmental experts and specialists in procurement, development, logistics, production, strategy and sales is working at the Mercedes-Benz Group to make the company's fleet of new cars CO<sub>2</sub>-neutral on the balance sheet by 2039. It monitors CO<sub>2</sub> emissions and controls reduction measures.

First, this concerns the CO<sub>2</sub> emissions when driving – the so-called [tank-to-wheel](#) emissions. Since 2008, the Product Strategy CO<sub>2</sub> unit has ensured that ambitious consumption and portfolio measures are implemented in good time and to best economic effect. One of the major milestones for this was electrification of the passenger car fleet in order to achieve the demanding EU fleet targets in 2020.

The Board of Management of the Mercedes-Benz Group AG is responsible for setting strategic goals, including targets for reducing the CO<sub>2</sub> emissions, and for monitoring the progress made in achieving these goals. The Product Steering Board (PSB) is responsible for the car fleet. This body monitors the development of the CO<sub>2</sub> emissions of the car fleet in markets in which such emissions are regulated. It is also responsible for providing forecasts. In its evaluations, the PSB takes into account a variety of factors, including the increasing degree of vehicle electrification and the changes that have been made to legal requirements, for example those related to the introduction of the [WLTP](#) certification procedure. The PSB is assigned to the Committee for Model Policy and Product Planning (AMP). The Product Strategy unit ensures compliance with the CO<sub>2</sub> fleet emission limits for vans and reports on this regularly to the Van Executive Committee. The Committee for Model Policy and Product Planning and the Van Executive Committee both inform the Board of Management of Mercedes-Benz Group AG. The Board

of Management then decides which measures need to be implemented. On the market side of the equation, price and volume control measures can also affect our ability to achieve our CO<sub>2</sub> targets over the short term. For this reason, such measures are also discussed with the Board of Management within the framework of regular reporting on the current state of [CO<sub>2</sub> fleet compliance](#).

The responsibility for ensuring that the climate protection targets are implemented is distributed across several corporate units and Board of Management members: the development units of the vehicle divisions are responsible at the vehicle level. For cars and vans, these are the "Drive Systems Product Group" development unit, the product groups of the vehicles and 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 respective Board of Management member for Mercedes-Benz Cars and Mercedes-Benz Vans is responsible. Mercedes-Benz Group AG monitors the implementation at Group management level.

"Ambition 2039" also relates to all other CO<sub>2</sub> emissions that occur in the life cycle of a vehicle. For example, the Environmental Protection unit calculates the CO<sub>2</sub> emissions of all model series and drive systems at Mercedes-Benz Cars and Mercedes-Benz Vans. To obtain an overview of the emissions, the company produces environmental and ecological balance sheets for the entire life cycle of vehicles. The company's procurement departments work with around 2000 direct suppliers to make the supply chain CO<sub>2</sub>-neutral on the balance sheet as well. The logistics experts address emissions from the supply of goods, distribution and delivery to distribution centres. Their goal is to avoid shipments as much as possible and to optimise routes and transport systems. The teams also apply additional measures for achieving CO<sub>2</sub> neutrality on the balance sheet in areas like production and customer-specific charging concepts.

To enable comprehensive recording and control of the CO<sub>2</sub> contribution of the individual units, data transparency over the entire life cycle is the key factor: for this purpose, the Mercedes-Benz Group has developed an internal monitoring tool for CO<sub>2</sub> calculation. This makes it possible to track the

progress with regard to CO<sub>2</sub> targets down to model series level and, for the first time, to present climate-relevant emissions down to the last nut and bolt. At the same time, the fleet level can also be analysed. The CO<sub>2</sub> monitoring tool maps two central perspectives on the company's climate protection activities: firstly, the strategic view of management and investors; this looks at the annual development of CO<sub>2</sub> emissions of all vehicles sold and shows whether the company is on target. Secondly, the detailed view of the design engineers and procurement personnel within the model series support function; with the help of this tool, they can ascertain what emissions are currently attributable to the battery of an EQS, and by what percentage this value must be reduced with regard to the company's own CO<sub>2</sub> targets.

## CO<sub>2</sub> emissions along the entire value chain

GRI 305-1/-2/-3

To evaluate how environmentally compatible a vehicle is, the Mercedes-Benz Group conducts ecological assessments: the company systematically analyses the generated CO<sub>2</sub> emissions and other environmental impacts along the entire value chain of a vehicle – from raw material extraction through production and use to recycling. Among other things, these analyses have shown that as more and more vehicles are electrified, the focus is shifting towards other factors such as production of the high-voltage battery and generation of the electricity for charging the battery. Since the launch of the EQS, battery cells have been produced with electricity that is CO<sub>2</sub>-neutral on the balance sheet, while the Group continues to drive forward efforts to promote battery charging with electricity from sustainable sources.

### ↗ Life cycle assessment of the EQE 350+

The Mercedes-Benz Group collates and publishes the key figures for the CO<sub>2</sub> emissions on corporate level based on the [Greenhouse Gas \(GHG\) Protocol](#) framework.

The Mercedes-Benz Group differentiates its greenhouse gas emissions according to three categories – the so-called Greenhouse Gas Scopes. Scope 1 includes all emissions that the company itself produces when it burns energy media at its production sites – for example, when it generates electricity and heat in the company's own power plants. Scope 2 includes all

emissions caused by external providers from whom energy is purchased in forms such as electricity and district heating. Scope 3 includes all the emissions that are generated before (upstream of) or after (downstream of) business operations. For example, Scope 3 includes the CO<sub>2</sub> emissions that arise in the supply chain (purchased goods and services), through the vehicles' operation in customers' hands (the use phase, including the production of fuel and electricity), and in the recycling phase of the vehicles.

The GHG Protocol specifies a total of 15 categories of Scope 3 emissions. The emissions are determined on the basis of comprehensive methodological considerations and complex calculations. The reported Scope 3 categories are selected after a review of relevance and data availability. At 78%, the majority of the Scope 3 emissions reported for the Mercedes-Benz Group occur in the utilisation phase, in other words during fuel and electricity production ([well-to-tank](#)) and the operation of its products (tank-to-wheel). Around 17% of indirect Scope 3 emissions are attributable to the supply chains that provide the company with goods and services.

The company determines the CO<sub>2</sub> emissions in the utilisation phase of Mercedes-Benz vehicles on the basis of its worldwide sales figures and the average, standardised CO<sub>2</sub> fleet value. An annual mileage of 20,000 km is assumed for each vehicle, for an assumed usage period of ten years. In total, the mileage therefore amounts to 200,000 km per vehicle.

[↗ Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in t per vehicle Mercedes-Benz Cars 2022](#)

[↗ Scope 1, 2 and 3 emissions worldwide Mercedes-Benz Cars](#)

## Measures

### An all-electric product range

The Mercedes-Benz Group's goal is to accelerate the pace of expansion of its range of electric vehicles. Its commitment to research and development work is correspondingly great. Altogether, the Mercedes-Benz Group wants to invest more than €60 billion between 2022 and 2026 for the transformation towards an all-electric and software-driven future.

The Mercedes-Benz Group is convinced that the transformation of road transport will lead to the complete electrification of vehicles. However, there are still obstacles to be overcome that require efforts on the part of the business community: for example, the charging infrastructure must not be allowed to lag behind the demand. The growth rate of renewable energies may also be too slow. Moreover, the workforce must be trained in new software and drive technologies. Although all newly introduced vehicle architectures will be purely electric from 2025, [❶ plug-in hybrids](#) and low-emission combustion engines still play an essential role and remain indispensable as a bridging technology.

#### **EQ models: Future-oriented and battery-electric**

Since 2018, Mercedes-Benz AG has been offering battery electric vehicles under the Mercedes-EQ brand. It is continuously expanding this brand's portfolio through the addition of more models. During the reporting year, Mercedes-Benz reached an important strategic milestone and now offers an all-electric alternative for every segment in which Mercedes-Benz is active – i.e. the EQA and EQB for the compact segment, the EQC for the midrange segment and the EQE and EQS for the premium segment. In August 2022, the all-electric model range was expanded to include the EQS SUV. This was followed in mid-2022 by the staggered global market launch of the EQE business saloon. The EQE 350 (WLTP: combined electrical consumption: 18.8–16.0 kWh/100 km; combined CO<sub>2</sub> emissions: 0 g/km) has an output of up to 300 kW and a range<sup>1</sup> of up to 645 km (according to WLTP).

In addition, the company also reached another milestone with the market launch of the EQE SUV in October 2022: the modular drive concept enables the EQE SUV to offer a wide range of maximum total outputs from 215 to 300 kW. Depending on the vehicle equipment and configuration, the European vehicles achieve [❶ WLTP](#) ranges<sup>1</sup> of up to 590 km.

#### **Plug-in hybrids**

[Plug-in hybrids](#) are an important transitional technology on the road to an all-electric future. Mercedes-Benz Cars offers an efficient drive-system package for this purpose: since 2021, customers have been able to choose between more than 20 model variants. This combination of an electric drive system and a combustion engine enables locally emission-free driving. The drive system, which consists of an electric motor and a high-voltage battery, can make all-electric operating ranges possible that are sufficient for most daily trips. In the compact segment, ranges of over 70 km ([❶ WLTP-TML](#)), in the luxury segment sometimes over 100 km (WLTP-TML) are possible. Mercedes-Benz offers this technology for the entire vehicle portfolio – from the A- to the S-Class, from the GLA to the GLE.

#### **Efficient vehicle concept**

Efficient driving and charging reduces the life-cycle CO<sub>2</sub> footprint – and is therefore a key lever for achieving the climate protection targets of the Mercedes-Benz Group. For this reason, the company focuses right from the early development phase on making all its vehicle concepts energy-efficient and takes all relevant areas into account: aerodynamics, powertrain, rolling resistance, weight, thermal management and onboard power network.

It strives to achieve what is technically possible in the premium segment and consistently takes actual customer operation as a benchmark. With the VISION EQXX concept car, Mercedes-Benz provides a preview of what will be possible in the future in terms of efficiency and electric range. On its first journey in April 2022, the vehicle covered over 1000 km in real everyday traffic on a single battery charge. The drive took place with a sealed charging socket and was accompanied by an independent expert from TÜV SÜD. The technical findings are being incorporated into the series development. The EQS also enables energy-efficient driving with a [❶ C<sub>d</sub>](#) value of 0.20 – especially at higher speeds.

<sup>1</sup> Electric energy consumption and range were determined on the basis of Regulation (EU) 2017/1151

## Mercedes-Benz Vans

Mercedes-Benz Vans is also setting the course for an all-electric future: Mercedes-Benz Vans is developing a fundamentally new, modular and purely electric vehicle architecture for this purpose, under the name VAN.EA. This means that from 2025, all newly developed vans will be exclusively electric.

Mercedes-Benz is convinced of the ecological and economic advantages of all-electric vans and has firmly anchored its claim to leadership in electric mobility in its strategy. As a result, all of its model series are to be systematically electrified. Even today, body manufacturers and customers can already choose from a number of battery electric vans for both commercial and private use. These include the eVito panel van and eVito Tourer, the eSprinter and the EQV. From 2023, it is planned that they will be joined by the eCitan and EQT (WLTP: combined electrical consumption: 18.99 kWh/100 km; combined CO<sub>2</sub> emissions: 0 g/km).<sup>2</sup>

## The new eSprinter

Mercedes-Benz Vans is also consistently implementing its strategy with the new eSprinter, underlining its claim to "Lead in Electric Drive". The features of this model series were defined in close collaboration with the customers: three battery and several body variants – from panel vans to chassis for box bodies – will enable the new eSprinter to penetrate into new customer segments and markets, including the USA and Canada. Depending on the configuration, the range can be extended to more than twice that of the current eSprinter. Production is scheduled to ramp up in stages in Charleston (South Carolina/USA), Düsseldorf and Ludwigsfelde (Germany), beginning in the second half of 2023. Mercedes-Benz AG has invested around €350 million in the new eSprinter, which is to be produced in a CO<sub>2</sub>-neutral on the balance sheet manner.

## Sustainability and climate protection in urban delivery transport

Just how ecological a van can be is demonstrated by the Mercedes-Benz Vans business unit with its SUSTAINEER technology platform: based on a Mercedes-Benz eSprinter, SUSTAINEER combines many innovations that improve the quality of life in cities, protect the climate and the environment and enhance the safety and health of drivers and other road users. Among other things, the all-electric van has a roof-mounted solar panel that generates green electricity for the vehicle. The SUSTAINEER is equipped with intelligent software and communication solutions that allow efficient route planning in real time. This reduces not only the distances driven, but also the energy consumption.

### ↗ Resource conservation

## Charging infrastructure and digital charging services

### GRI 203-1

The Mercedes-Benz Group has set itself the goal of contributing to the electrification of individual mobility worldwide. In the Mercedes-Benz Cars and Mercedes-Benz Vans divisions, the company is therefore continuously working on private and commercial charging solutions for the home, the workplace and public spaces. The ultimate goal is to offer customers the best charging experience in the industry in terms of reliability, convenience, sustainability and value retention.

## Green charging with Mercedes me Charge

To offer its customers convenient and green charging, the Mercedes-Benz Group relies on a strong  **digital ecosystem** including vehicle integration and innovative partnerships.

The Mercedes me Charge digital charging service offers the company's customers access to one of the largest charging networks in the world. Mercedes me Charge is growing. At the end of 2022, more than 1,000,000 AC and DC charging points had been integrated around the world, including more than 350,000 in Europe. In Europe alone, there are over 850 different operators of public charging stations to whose charging points Mercedes me Charge customers have access.

<sup>2</sup> Electric energy consumption and range were determined on the basis of Regulation (EU) 2017/1151

In addition to making charging as easy and convenient as possible for customers, Mercedes me Charge also enables green electricity to be charged at public charging points in Europe, the USA and Canada. Energy Attribute Certificates (EACs) ensure that the corresponding amount of green energy is fed into the grid after each charging process. This green electricity bears the  EKOenergie eco-label and is provided by certified energy generation plants.

Green electricity, in other words electricity from renewable energy sources, is a significant factor in the life cycle of an electric car in order to avoid CO<sub>2</sub> emissions. This is because around 50% of the CO<sub>2</sub> footprint of a battery electric vehicle – given the current EU electricity mix – is generated in the use phase, in charging processes that generate CO<sub>2</sub>. But whether a public charging point draws green power or power from non-renewable sources is often not known. The supply of the charging current is the responsibility of the charging point's operator. To counteract this lack of transparency and promote the use of electricity from renewable sources, the Mercedes-Benz Group has made green charging an integral part of Mercedes me Charge.

In addition, green charging creates incentives for investments in further renewable energy plants. Moreover, the system shows how the respective charging behaviour affects the personal CO<sub>2</sub> footprint. The Mercedes-Benz Group was the first automobile manufacturer to offer this service. The public response to green charging is positive. Since the market launch in Europe in March 2021, the monthly green charging volume has increased steadily.

**Creation of own global high-power charging network**  
The Mercedes-Benz Group has announced far-reaching plans for the creation of a global high-power charging network in North America, Europe, China and other key markets. Construction of the first charging park will begin in 2023. The aim is to have put in place the complete network of more than 2000 charging hubs, with more than 10,000 charging points, by 2027. In the USA, the company is planning more than 400 charging hubs with more than 2500 charging points. The network is explicitly designed to be available to compatible vehicles of any brand, with the ambition of encouraging the rapid expansion of electric mobility on a global basis.

In accordance with its sustainable corporate strategy "Ambition 2039", the Mercedes-Benz Group wants to make it possible for its customers to charge their vehicles using green electricity. This will be achieved primarily by means of green energy supply contracts or through the use of Energy Attribute Certificates (EACs) from accredited issuers. Certain Mercedes-Benz charging stations will also include photovoltaic systems designed to meet the electricity requirements for lighting, video monitoring and suchlike.

### **Expansion of the IONITY fast-charging network**

Within the scope of the IONITY joint venture, Mercedes-Benz AG is working to create a high-performance fast-charging network for electric vehicles in Europe. IONITY aims to safeguard private electric mobility by means of a standardised charging network along the most important pan-European motorways with the intention of speeding up the adoption of electric mobility within the market.

At the end of 2022, over 450 IONITY fast-charging locations or "charging parks" were in operation. Each charging park has several charging points, all of which are powered entirely by green electricity. The high charging power of up to 350 kW per charging point enables correspondingly designed vehicles to charge their batteries quickly. The more than 2,000 charging points of IONITY are integrated into Mercedes me Charge and can be conveniently used via Plug & Charge.

The number of IONITY fast-charging stations is expected to more than quadruple across Europe and grow to around 7000 charging points at more than 1000 locations by 2025. These will in future also be found along major roads and near urban centres. Some locations will also have innovative flagship concepts for making travel more convenient and improving the charging experience. To realise this growth strategy, the existing shareholders and BlackRock as a new shareholder are investing €700 million.

## Flexible charging system for EQ models and plug-in hybrids

The Mercedes-Benz Group offers a flexible charging system for private and public charging. Charging at up to 22 kW is possible via various adapters. The system is also compatible with all battery-electric vehicles (BEVs) and plug-in hybrids that have a type 2 connection.

## Intelligent charging with the networked Mercedes-Benz Wallbox

The new Mercedes-Benz Wallbox charges electric cars and plug-in hybrids quickly, intelligently and conveniently. It is designed for up to 22 kW.<sup>3</sup> As it is technically preconfigured for remote functions, customers are for the first time optionally able to start and stop charging processes via the Mercedes me App<sup>4</sup>, monitor the present state of charge and view the charging history. In addition, the Mercedes-Benz Wallbox now has an integrated energy meter. Furthermore, it is technically possible to receive software updates “over-the-air” via the customer’s own internet connection in the future.<sup>5</sup> This makes the Wallbox particularly future-proof.

## Charging infrastructure expanded at own locations

Mercedes-Benz AG is also continuously driving forward the expansion of the charging infrastructure at its own locations: since 2013, it has put more than 6,000 charging points into operation. At the end of 2022, comprehensive charging solutions were available to employees. The company also plans to install more charging points in 2023. In addition, over 2,500 of the Mercedes-Benz charging points at the company’s own locations will also be available to the public from the end of 2022.

With the “charge@Mercedes-Benz” project, since 2013, the company has been bundling its activities for the development of an intelligent charging infrastructure for all company-owned properties in Germany. Mercedes-Benz AG not only equips car parks, multi-storey car parks and customer centres, but also its internal development test facilities and test sites. The charging points of Mercedes-Benz AG are supplied with 100% certified green electricity.

## Services

A large proportion of the CO<sub>2</sub> emissions from cars with combustion engines is generated during driving. The Mercedes-Benz Group would therefore like to support the users of its vehicles in adopting a climate-friendly driving style and in making purchasing decisions in favour of locally emission-free vehicles. To this end, it offers a wide range of service solutions.

## Facilitating the switch to battery-electric vehicles

Mercedes-Benz Mobility supports the transformation towards electric mobility with the Green Mapping concept: since the end of 2020, customers who have leased or financed their Mercedes through Mercedes-Benz Mobility AG can switch from a combustion engine to a hybrid or electric vehicle for the same monthly instalment.

## App facilitates decision for e-mobility

Is an electric vehicle or a plug-in hybrid right for my day-to-day life? The Mercedes-Benz “Electric Ready App” supports drivers in determining whether a switch would be practicable by analysing individual driving behaviour. To do this, it uses the principle of gamification: the users receive a lot of useful information relating to electric mobility presented in an entertaining manner as part of a seven-day challenge. In addition to data about their potential energy requirements, users can simulate the duration of different charging solutions in real time and view the various regional charging infrastructures. The app has been available in around 29 countries worldwide since 2020. So far, it has evaluated just under 2.5 million trips for its users, which is an average of 24 trips per week.

<sup>3</sup> Depending on the manufacturer and vehicle, 22 kW charging may require the “Alternating current charging system (AC charging 22 kW)” as optional equipment. If this is not the case, the vehicle is automatically charged with the optimum output at the Wallbox. The maximum charging capacity of the charging station must suit the physical installation (cable diameter and overload protection)

<sup>4</sup> To use the remote functions of the Mercedes-Benz Wallbox and receive over-the-air updates, the Mercedes me App, a personal Mercedes me ID and consent to the Terms of Use for the Mercedes me connect services are necessary.

<sup>5</sup> To receive the “over-the-air” updates, customers must agree to the respective update in the Mercedes me App or give general consent in the Mercedes me App to receive all future updates

The Mercedes-Benz “Electric Ready App” offers corresponding additional functions specifically for commercial users: among other things, they can be used to check whether the routes driven could also be covered with an electric Mercedes-Benz van; the app also takes various loads and the resulting vehicle weight into account. The “eCost Calculator” calculates whether an electric Mercedes-Benz van would be a good option from a financial standpoint. It provides information that makes it possible to compare the annual operating costs of a van with a combustion engine with those of an electrically powered Mercedes-Benz van. With regard to the charging infrastructure, Mercedes-Benz Vans also analyses the local conditions together with the interested parties with the help of the “eCharging Planner”. This shows what measures are necessary for the efficient operation of individual vehicles, or of smaller or larger fleets.

Furthermore, a range simulator, a charging time calculator and an e-route planner can be used via the Mercedes-Benz Group website.

#### **App collects data about individual fuel consumption**

The Mercedes-Benz Group offers transparent information and comparison options on the fuel consumption of its vehicles in Europe: since 2020, customers can voluntarily share their individual fuel consumption anonymously and compare it with users of similar vehicles via the free Mercedes me app for almost all model series. This information is also available on the [company's website](#). Since 2022, visitors to the website can select a vehicle themselves and view the consumption curve of all journeys.

Data show that individual fuel consumption can be both below and above the WLTP certification value. Deviations compared to the WLTP cycle can be caused by numerous factors such as road conditions, load, weather conditions, but especially by the individual driving style.

#### **Saving energy with the Eco Coach**

Since the end of 2020, the Mercedes-Benz Group has offered customers of plug-in hybrid and electric vehicles an app with individual energy-saving tips: the Mercedes me Eco Coach analyses personal driving and charging behaviour and provides personalised

tips on how to reduce the CO<sub>2</sub> footprint and increase the longevity of the vehicle battery. The app is now available in ten European markets.

For each activity and participation in various challenges, points are awarded that can be redeemed for CO<sub>2</sub> compensation or converted into Mercedes me Charge charging vouchers.

#### **More environmentally friendly batteries**

Range, performance, charging time: the battery is the centrepiece of an electric vehicle. As part of its holistic battery strategy, the Mercedes-Benz Group is pursuing the goal of bringing ever more economical, powerful and environmentally compatible battery systems to market. To this end, the Mercedes-Benz Group together with its partners is focusing on battery cells and modules produced on a CO<sub>2</sub>-neutral basis on the balance sheet basis.

To promote local battery production and reduce transport distances, Mercedes-Benz AG has acquired shares in the European battery cell manufacturer Automotive Cells Company (ACC). From 2025, this will supply Mercedes-Benz with high-performance battery cells and modules. ACC plans to more than double the capacity of its European plants as part of its cooperation with Mercedes-Benz.

In addition, Mercedes-Benz and Contemporary Amperex Technology Co, Limited (CATL) announced in August 2022 that they would expand the existing battery cell partnership: the new CATL plant in Debrecen, Hungary operates on a CO<sub>2</sub>-neutral basis and supplies battery cells for European production locations in Germany and Hungary.

At the same time, the company also relies on other strong cooperations with the aim of jointly developing advanced battery technologies – from cells and modules to integration into the vehicle battery. Among other things, it is working with partners to increase the energy density of lithium-ion batteries by using high-silicon anodes or lithium anodes in combination with solid-state technology.

The Mercedes-Benz Group is stepping up its research and development activities in order to bring new technologies into series production as early as possible:

among other things, it is setting up a competence centre for cell technology in Untertürkheim – materials and cells can be technologically evaluated there in the future. The “Mercedes-Benz eCampus” will gradually take up operation from 2023. This also means that a near-series plant for the small-scale production of battery cells will be available at the start.

## Effectiveness and results

### Effectiveness of the management approach

The Mercedes-Benz Group's management approach to climate protection is based on the “Ambition 2039” targets. The company has also defined the measures it will use to achieve these goals. The Mercedes-Benz Group evaluates their effectiveness on the basis of internal and external performance assessments: internally, the company conducts audits at the departmental level several times a year for this purpose. Externally, it has selected goals and measures audited by an auditing company.

The Mercedes-Benz Group also engages in dialogues on the topic of climate protection and uses the insights gained to review and, if necessary, adapt its management approach. For example, the company maintains an intensive exchange with environmental institutes and non-governmental organisations at its annual [“Sustainability Dialogue”](#). In addition, the topic of climate protection is an integral part of regular Board of Management meetings; current developments are discussed with the Advisory Board for Integrity and Sustainability. Politicians, the general public and other stakeholders of the Mercedes-Benz Group also provide the company with regular feedback on how the company's own sustainability goals are perceived and assessed.

## Results

### Alternative drive systems

[Electrified vehicles \(xEV\) at Mercedes-Benz Cars accounted for 16% of the Group's worldwide unit sales in the year under review. Battery electric models accounted for 4% of unit sales at Mercedes-Benz Vans.](#)

### Alternative drive systems Mercedes-Benz Cars

		<b>2022</b>
Worldwide	Alternative drive systems (total)	333,490
	Plug-in hybrid	184,263
	Electric drive	149,227
	<b>MBC unit sales (total)<sup>1</sup></b>	<b>2,040,719</b>
Europe <sup>2</sup>	Alternative drive systems (total)	236,678
	Plug-in hybrid	142,022
	Electric drive	94,656
	<b>MBV unit sales (total)<sup>1</sup></b>	<b>618,904</b>

1 Group sales Mercedes-Benz Cars (incl. smart)

2 Europe: European Union, United Kingdom, Switzerland and Norway

### Alternative drive systems at Mercedes-Benz Vans

		<b>2022</b>
Worldwide	Electric drive	15,003
	<b>MBV unit sales (total)<sup>1</sup></b>	<b>415,344</b>
Europe <sup>2</sup>	Electric drive	14,847
	<b>MBV unit sales (total)<sup>1</sup></b>	<b>259,436</b>

1 Group Sales Mercedes-Benz Vans (commercial)

2 Europe: European Union, United Kingdom, Switzerland and Norway

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

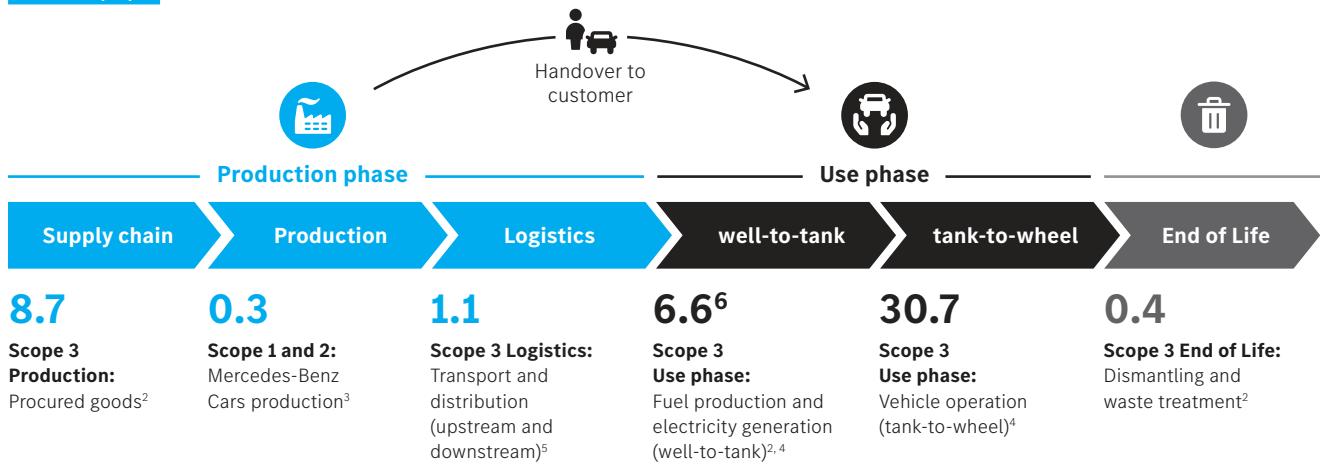
GRI 302-1/2 | GRI 305-1/-2/-3

For the entire life cycle of the Mercedes-Benz Cars fleet and the Mercedes-Benz Vans fleet worldwide, Mercedes-Benz has calculated emissions in accordance with the requirements of the Corporate Accounting and Reporting Standard 2004 of the Greenhouse Gas Protocol Initiative.

This resulted in an average CO<sub>2</sub> value of 47.9 t per vehicle for Mercedes-Benz Cars for the year 2022, and an average CO<sub>2</sub> value of 62.7 t per vehicle for Mercedes-Benz Vans. 52.2 t is accounted for by the use phase, which is dominated by commercial goods transport with vans in the 3.5 t-5 t segment.

## Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in t per vehicle, Mercedes-Benz Cars 2022<sup>1,7</sup>

GRI 305-1/-2/-3



1 For calculation basis see appendix [Calculation and documentation of CO<sub>2</sub> emissions](#) and chapter [CO<sub>2</sub> emissions along the entire value chain](#)

2 See [Life cycle assessments of vehicles](#) and internal life cycle assessment studies

3 See [key figures environment](#). Since early 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) at production facilities operated by the Mercedes-Benz Group that have been as yet unavoidable have been offset by means of carbon offsets from qualified climate change mitigation projects.

4 Driving emissions of Mercedes-Benz Cars fleet (EU, China, USA and RoW) standardised, mileage: 200,000 km, for data basis see chapter [Development of CO<sub>2</sub> emissions](#)

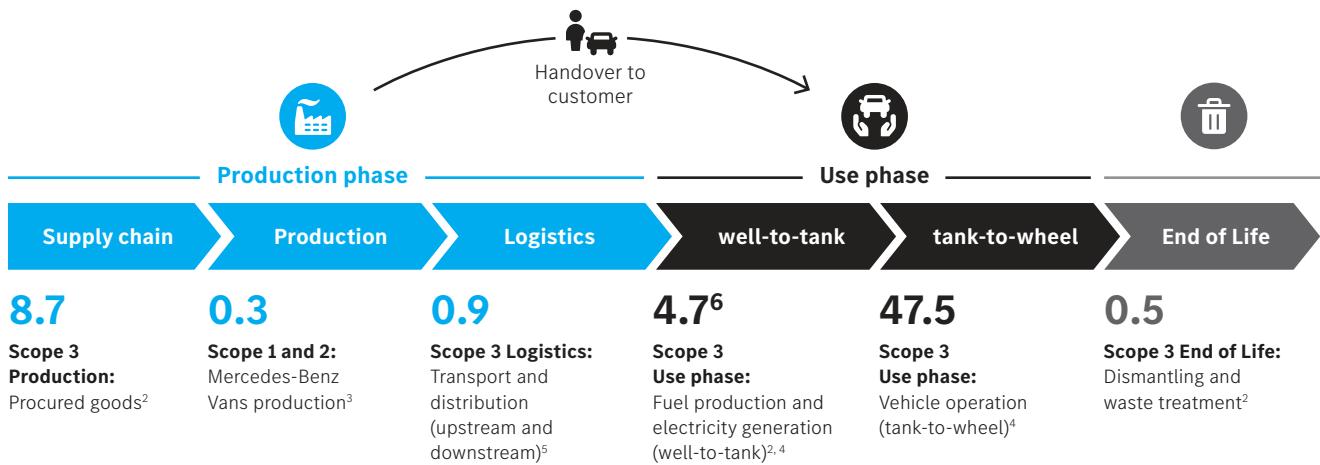
5 Forecast value

6 Incl. Green Charging: Contribution per vehicle -0.08 t CO<sub>2</sub>

7 The key figures were audited in order to obtain limited assurance

## Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in t per vehicle, Mercedes-Benz Vans 2022<sup>1,7</sup>

GRI 305-1/-2/-3



1 For calculation basis see appendix [Calculation and documentation of CO<sub>2</sub> emissions](#) and chapter [CO<sub>2</sub> emissions along the entire value chain](#)

2 Internal life cycle assessment studies

3 See [key figures environment](#). Since early 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) at production facilities operated by the Mercedes-Benz Group that have been as yet unavoidable have been offset by means of carbon offsets from qualified climate change mitigation projects.

4 Driving emissions of Mercedes-Benz Cars fleet (EU, China, USA and RoW) standardised, mileage: 200,000 km, for data basis see chapter [Development of CO<sub>2</sub> emissions](#)

5 Forecast value

6 Incl. Green Charging: Contribution per vehicle -0.03 t CO<sub>2</sub>

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

## Scope 1, 2 and 3 emissions, Mercedes-Benz Cars worldwide<sup>1, 5, 8</sup>

	2020		2021		2022	
Scope 3	Specific CO <sub>2</sub> in t/car	Absolute CO <sub>2</sub> in million t <sup>4</sup>	Specific CO <sub>2</sub> in t/car	Absolute CO <sub>2</sub> in million t <sup>4</sup>	Specific CO <sub>2</sub> in t/car	Absolute CO <sub>2</sub> in million t <sup>4</sup>
Procured goods <sup>6</sup>	8.1	<b>17.0</b>	8.4	<b>17.0</b>	8.7	<b>17.7</b>
Logistics	1.0 <sup>2</sup>	<b>2.1<sup>2</sup></b>	1.1 <sup>2</sup>	<b>2.2<sup>2</sup></b>	1.1 <sup>2</sup>	<b>2.2<sup>2</sup></b>
Business travel	0.006	<b>0.012</b>	0.009	<b>0.019</b>	0.028 <sup>7</sup>	<b>0.057<sup>7</sup></b>
Employee traffic	0.060	<b>0.125</b>	0.053	<b>0.107</b>	0.052	<b>0.107</b>
Use phase of our products (well-to-tank)	5.6	<b>11.8</b>	6.3 <sup>3</sup>	<b>12.7<sup>3</sup></b>	6.6 <sup>3</sup>	<b>13.6<sup>3</sup></b>
Use phase of our products (tank-to-wheel)	33.7	<b>70.4</b>	32.2	<b>65.5</b>	30.7	<b>62.7</b>
Dismantling and waste treatment <sup>6</sup>	0.4	<b>0.8</b>	0.4	<b>0.8</b>	0.4	<b>0.8</b>
<b>Scope 1 and 2</b>						
Manufacture	0.8	<b>0.9<sup>4</sup></b>	0.7	<b>0.7<sup>4</sup></b>	0.3	<b>0.4<sup>4</sup></b>
<b>Total</b>	<b>49.7</b>	<b>103.2</b>	<b>49.1</b>	<b>99.2</b>	<b>47.9</b>	<b>97.8</b>

1 Values are rounded

2 Forecast value

3 Incl. Green Charging: Contribution per vehicle -0.08 t CO<sub>2</sub>

4 Absolute Scope 3 emissions relate to retail sales (2020: 2,087,200; 2021: 2,032,663; 2022: 2,041,705; unaudited). Absolute Scope 1 and 2 emissions relate to vehicles produced from fully consolidated locations, excluding third-party products (2020: 1,230,733; 2021: 1,132,213; 2022: 1,261,106; unaudited)

5 For calculation basis see appendix [Calculation and documentation of CO<sub>2</sub> emissions](#) and chapter [CO<sub>2</sub> emissions along the entire value chain](#)

6 See [Life cycle assessments of vehicles](#) and internal life cycle assessment studies

7 Business trips by air plane, rental car and domestic train services

8 The key figures were audited in order to obtain limited assurance

## Scope 1, 2 and 3 emissions, Mercedes-Benz Vans worldwide<sup>1, 5, 8</sup>

	2021		2022	
Scope 3	Specific CO <sub>2</sub> in t/van	Absolute CO <sub>2</sub> in million t <sup>4</sup>	Specific CO <sub>2</sub> in t/van	Absolute CO <sub>2</sub> in million t <sup>4</sup>
Procured goods <sup>6</sup>	8.6	<b>3.4</b>	8.7	<b>3.6</b>
Logistics	0.9 <sup>2</sup>	<b>0.4<sup>2</sup></b>	0.9 <sup>2</sup>	<b>0.4<sup>2</sup></b>
Business travel	0.007	<b>0.003</b>	0.008 <sup>7</sup>	<b>0.003<sup>7</sup></b>
Employee traffic	0.039	<b>0.015</b>	0.038	<b>0.016</b>
Use phase of our products (well-to-tank)	4.9	<b>1.9</b>	4.7 <sup>3</sup>	<b>2.0<sup>3</sup></b>
Use phase of our products (tank-to-wheel)	47.8	<b>18.9</b>	47.5	<b>19.7</b>
Dismantling und waste treatment <sup>6</sup>	0.5	<b>0.2</b>	0.5	<b>0.2</b>
<b>Scope 1 and 2</b>				
Manufacture	0.5	<b>0.2</b>	0.3 <sup>4</sup>	<b>0.1<sup>4</sup></b>
<b>Total</b>	<b>63.3</b>	<b>25.0</b>	<b>62.7</b>	<b>26.0</b>

1 Values are rounded

2 Forecast value

3 Incl. Green charging: contribution per vehicle -0.03 t CO<sub>2</sub>

4 Absolute Scope 3 emissions relate to retail sales (2021: 394,978; 2022: 415,335; unaudited). Absolute Scope 1 and 2 emissions relate to vehicles produced from fully consolidated locations, excluding third-party products (2021: 336,847; 2022: 360,874; unaudited)

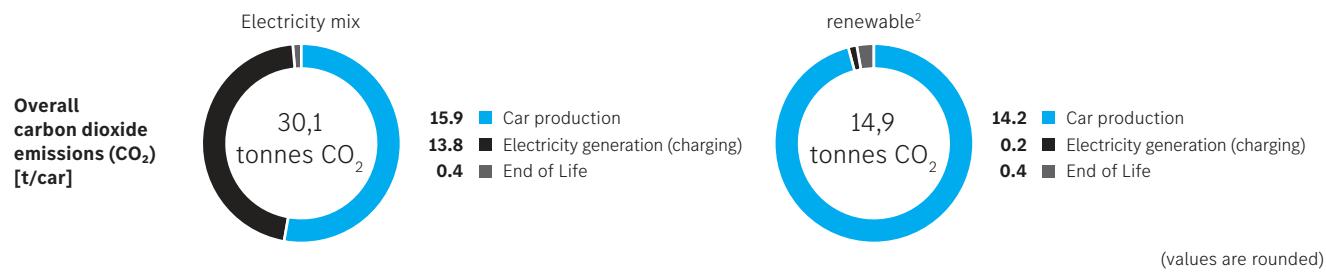
5 For calculation basis see appendix [Calculation and documentation of CO<sub>2</sub> emissions](#) and chapter [CO<sub>2</sub> emissions along the entire value chain](#)

6 Internal life cycle assessment studies

7 Business trips by air plane, rental car and domestic train services

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

## Life cycle assessment of the EQE 350+<sup>1</sup>



<sup>1</sup> EQE 350+ (WLTP: combined electrical consumption: 18.7 – 15.9 kWh/100 km; combined CO<sub>2</sub> emissions: 0 g/km)  
<sup>2</sup> Renewably generated energy for cell production and charging current

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

### GRI 305-5

The Mercedes-Benz Group has defined the CO<sub>2</sub> emissions of its total new passenger car fleet in Europe as one of its significant non-financial performance indicators. For more information on how it expects the CO<sub>2</sub> emissions of its car fleet in Europe to develop in 2023, see the Outlook chapter in the annual report.

### Forecast, AR 2022

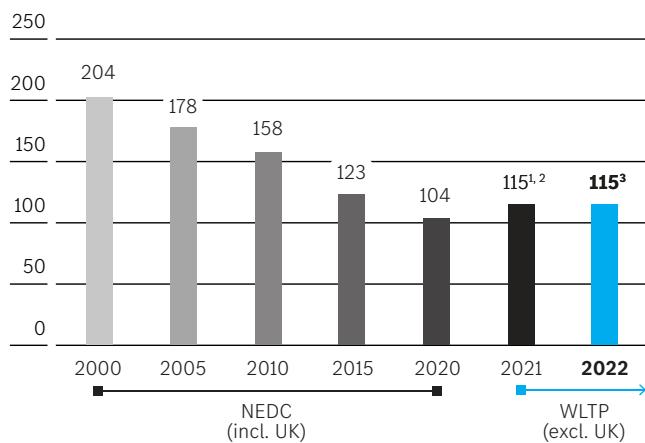
In the reporting year, the average CO<sub>2</sub> emissions of the Mercedes-Benz passenger new car fleet in Europe (European Union, Norway and Iceland), applying the statutory regulations, are expected to amount to 115 g/km (including vans registered as passenger cars) and were thus at the same level as in the previous year. This means that the figures for Mercedes-Benz achieved the CO<sub>2</sub> targets in Europe in 2022.

For 2023, the company expects that the Mercedes-Benz fleet average in Europe (European Union, Norway and Iceland) will continue to fall. This development is particularly favoured by the continuing increase in sales of all-electric and plug-in vehicles as a proportion of total passenger car sales.

## Development of the average CO<sub>2</sub> emissions of the Mercedes-Benz passenger car fleet in Europe

### GRI 302-5

in g/km



<sup>1</sup> Including vans registered as M1 vehicles — all other years without vans.

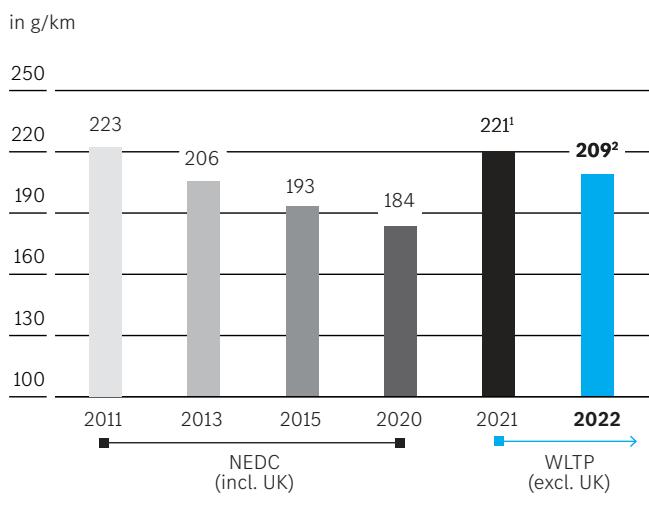
<sup>2</sup> Preliminary EU data.

<sup>3</sup> Projection.

In the reporting year, the average CO<sub>2</sub> emissions of the vehicle category N1 light trucks in Europe (European Union, Norway and Iceland) as measured on the basis of the legal regulations are expected to amount to 209 g/km. This means that the figures for Mercedes-Benz will be below the CO<sub>2</sub> target.

For 2023 the company expects a further reduction in CO<sub>2</sub> emissions due to rising sales of battery-electric vehicles.

### Development of the average CO<sub>2</sub> emissions of the Mercedes-Benz van fleet in Europe



<sup>1</sup> Preliminary EU data

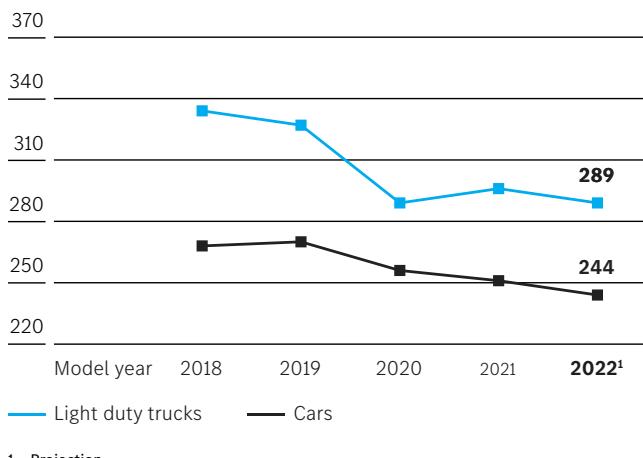
<sup>2</sup> Projection

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

In the United States, fleet values are regulated by two separate federal standards for limiting greenhouse gases and fuel consumption in vehicle fleets: the [Greenhouse Gas Protocol \(GHG\)](#) and the [Corporate Average Fuel Economy \(CAFE\) standard](#). For the 2022 model year, the GHG fleet figure is 244 g CO<sub>2</sub>/mi for the car fleet and 289 g CO<sub>2</sub>/mi for the fleet of vans and SUVs registered as light trucks (on the basis of the most recent forecast). Because the portfolio of electrified vehicles (xEV) in the United States is still in an early stage of development, the Mercedes-Benz Group was not able to achieve its average fleet targets of 195 g CO<sub>2</sub>/mi for the car fleet and 256 g CO<sub>2</sub>/mi for the fleet of vans and SUVs registered as light trucks. However, the Mercedes-Benz Group was able to offset the remaining difference through the purchase of external credits.

### Mercedes-Benz GHG values for passenger cars and light duty trucks in the USA

in g CO<sub>2</sub>/mile



<sup>1</sup> Projection

The models of the Mercedes-Benz Sprinter are subject to the GHG regulation for Classes 2b/3. The CO<sub>2</sub> targets in these classes depend on the payload, the towing capacity and the drive type of the vehicles. Data on CO<sub>2</sub> emissions from Mercedes-Benz vehicles were not yet available at the time of publication of this report.

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

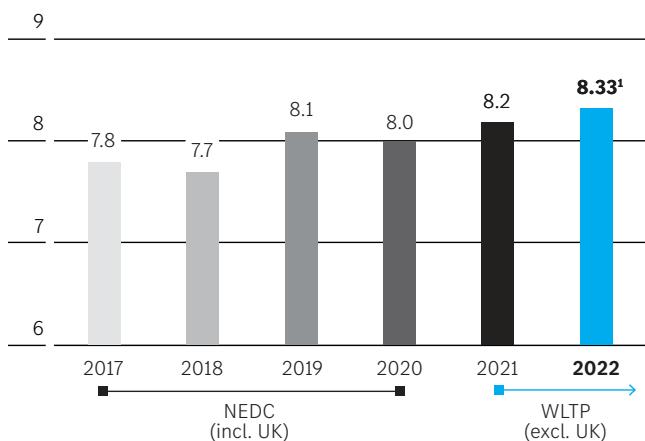
In China, domestic and imported cars are reported separately and according to fleet consumption values, unlike in Europe and the United States. This means the figures for the imported fleet are the relevant figures for our wholly owned subsidiary Mercedes-Benz China (MBCL). The target was 7.01 l/100 km; the figure that was actually achieved was 8.33 l/100 km (8.17 l/100 km including [off-cycle technologies](#)). MBCL plans to purchase external credits in order to close consumption gaps in the fleet's target achievement at short notice.

The aim of the Mercedes-Benz Group with regard to the portfolio expansion for all-electric vehicles and plug-in hybrids is to achieve the emission targets in China in the medium term, together with the joint-venture partner Beijing Benz Automotive (BBAC).

## Mercedes-Benz fleet consumption passenger cars in China

GRI 302-5

in l/100 km



<sup>1</sup> Preliminary value without off-cycle technologies

The V-Class and Vito models are produced by the joint venture Fujian Benz Automotive Co., Ltd. (FBAC) and constitute a local fleet (domestic). A value of 9.29 l/100 km was achieved (without off-cycle technology); the target value is 7.9 l/100 km. At present, the fleet balance can be offset by means of a credit transfer. This situation is not likely to change until 2026, because the fleet consists of only a single vehicle model.

Legal limits on the fuel consumption and/or CO<sub>2</sub> emissions of car fleets and light truck fleets also exist in many other markets, although the target values differ from market to market. This concerns major sales markets for Mercedes-Benz products such as 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.

# Climate protection in the supply chain

## Strategy and concepts

### Climate-protection goal: CO<sub>2</sub> neutrality on the balance sheet

GRI 2-23

GRI 3-3

With its “Ambition 2039”, the Mercedes-Benz Group aims to have a CO<sub>2</sub>-neutral on the balance sheet new vehicle fleet along the entire value chain in less than 20 years. The supplier network plays a decisive role in achieving the climate targets: for example, the production of an all-electric vehicle is about twice as CO<sub>2</sub>-intensive as for a conventional combustion engine model, 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 make-up of the electric vehicle portfolio or at the company's own production locations. But it is also clear that there are some areas which the company can influence only in part. This includes for example the energy mix used in the use phase of the vehicles, or for production of procured components in the country of origin.

### Sustainable transformation at the suppliers

GRI 2-23/-24

The Mercedes-Benz Group aspires to prevent, minimise or as far as possible eliminate (potentially) negative environmental impacts along its supply chain. To achieve this, it observes the practice of sustainable supply chain management. Its [“Responsible Sourcing Standards”](#) provide the guidelines for this: they include minimum requirements for CO<sub>2</sub> savings, requirements for the introduction of an environmental and energy management system and compliance with legal requirements. Suppliers must agree to the Responsible Sourcing Standards in order to participate in the award process for any new contracts with the company. In addition, Mercedes-Benz Cars and Mercedes-Benz Vans set further sustainability requirements for suppliers. These requirements define measures that will be applicable for future vehicles – for example specific CO<sub>2</sub> targets for focus materials.

[↗ Requirements for suppliers](#)

In order to reduce CO<sub>2</sub> emissions in the supply chain, Mercedes-Benz Cars and Mercedes-Benz Vans are actively promoting the transformation of their suppliers. For this, they use three levers: through the “Ambition Letter”, which applies in the case of the award of any new contract, suppliers pledge to the segments that only CO<sub>2</sub>-neutral on the balance sheet products will be procured from 2039 on.

[↗ Declaration of intent on CO<sub>2</sub> neutrality on the balance sheet](#)

In addition, they have 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 concern the direct supplier, but are also valid for the upstream production of raw materials and components.

[↗ More climate-friendly production materials](#)

As a third lever, both segments 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 body-in-white components – through innovative technologies.

[↗ Future technologies for reducing CO<sub>2</sub> emissions](#)

## Measures

### Declaration of intent on CO<sub>2</sub> neutrality on the balance sheet

GRI 3-3

GRI 308-1

The Mercedes-Benz Group implements various projects and measures in order to avoid and reduce CO<sub>2</sub> emissions in its supply chains for services as well as for production and non-production materials. In future, the company wants to work only with partners who share its understanding of sustainability in terms of climate, environment and human rights.

For this reason, in 2020, Mercedes-Benz Cars and Mercedes-Benz Vans already sent out to suppliers of production materials the ambition letter, a declaration

of intent on balance sheet carbon-neutral products and established approval as a prerequisite for awarding contracts. By signing this document, they commit themselves to supply Mercedes-Benz AG only with products that are CO<sub>2</sub>-neutral on the balance sheet by 2039 at the latest – and thus to the Mercedes-Benz Group's "Ambition 2039".

#### ↗ Effectiveness and results

### More climate-friendly production materials

Moreover, Mercedes-Benz Cars and Mercedes-Benz Vans are setting selected priorities for production materials on the road to achieving CO<sub>2</sub> neutrality on the balance sheet. 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 batteries. Finally, they have integrated the target values into their criteria for contract award processes – and consistently apply CO<sub>2</sub> and recycled content requirements as key criteria when awarding contracts for the "Electric first" vehicle platform "Mercedes-Benz Modular Architecture" (MMA), as well as the "Mercedes-Benz Electric Architecture" platform (MB.EA).

### Future technologies to reduce CO<sub>2</sub> emissions

The Mercedes-Benz Group is working together with suppliers to develop measures for reducing the CO<sub>2</sub> emissions of the procured production and non-production materials as well as those involved in delivering goods to the plants (inbound logistics). For Mercedes-Benz Cars and Mercedes-Benz Vans, the goal is to source only CO<sub>2</sub>-neutral on the balance sheet production materials from 2039 on – with the focus on batteries, steel and aluminium.

### Battery

The battery is the component in the vehicle with the greatest CO<sub>2</sub> contribution. To counteract this, Mercedes-Benz Cars and Mercedes-Benz Vans stipulate from their strategic battery cell partners that only battery cells produced on a CO<sub>2</sub>-neutral on the balance sheet basis should be procured. In this way the emissions of a cell can be reduced by around 30%. Since 2021, external experts and testing organisations

have been verifying and confirming CO<sub>2</sub>-neutral on the balance sheet cell production at the suppliers.

In addition, both segments are engaged in ongoing negotiations with other players in the supply chain – including electrode producers, refineries and mines. In addition to respecting human rights, a central requirement is to rely more on renewable energy sources, in particular for electricity. They have also agreed with strategic partners to establish a sustainable supply of lithium.

#### ↗ More environmentally friendly batteries

Since 2018, the audit and consulting company RCS Global has been creating transparency about the complex supply chains for battery cells for Mercedes-Benz. In the reporting year, these audits were extended to include further battery raw materials. Along with the human rights due diligence, the audit now also covers specific environmental topics – including environmental due diligence, CO<sub>2</sub> emissions and the use of electricity from renewable sources.

#### ↗ Production materials

#### ↗ More environmentally friendly batteries

### Steel

The company also works with strategic partners in other areas of the supply chain: in 2021, for example, Mercedes-Benz AG was the first car manufacturer to invest in the Swedish start-up H2 Green Steel (H2GS) as a means of introducing CO<sub>2</sub>-free steel into series production going forward. H2GS produces CO<sub>2</sub>-free steel by using hydrogen and electricity from exclusively renewable sources. In addition, Mercedes-Benz AG has been purchasing more environmentally friendly flat steel products from Salzgitter Flachstahl GmbH since 2021. In the same year, Mercedes-Benz AG also launched a partnership covering CO<sub>2</sub>-free steel with the Swedish steel manufacturer SSAB.

### Aluminium

In the reporting year, Mercedes-Benz AG furthermore signed a letter of intent with an aluminium producer with the aim of working together to develop and introduce, by 2030, aluminium for automotive applications that is practically CO<sub>2</sub>-free. Innovative technologies for primary material production as well as the increased use of scrap will play an important part in this project.

#### ↗ Resource conservation along the supply chain

## New minimum requirement for suppliers

In the reporting year, the Mercedes-Benz Group introduced the “Responsible Sourcing Standards” (RSS). These are the company’s new central contractual document covering sustainability requirements for suppliers. The standards include its minimum requirements for a responsible supply chain – including environmental protection. They aim to conserve natural resources and prevent and repair environmental damage caused by economic activities when it occurs. If the environmental damage is unavoidable or irreparable, it must be compensated. In this way, the company is tightening its sustainability requirements, particularly in the areas of environmental due diligence, climate protection and resource conservation, as well as biodiversity, deforestation and water. In addition, the standards define minimum requirements with regard to human rights due diligence.

### ↗ Requirements for suppliers

With the newly developed RSS, the Mercedes-Benz Group not only goes beyond its own previous sustainability requirements; it also sets stricter requirements for suppliers than those required by the German Supply Chain Sourcing Obligations Act (LkSG). In this way, the company seeks to sensitise its suppliers beyond the legal requirements and motivate them to greater efforts with respect to sustainability. In order to act in compliance with the LkSG, the Mercedes-Benz Group has applied the RSS to all contract award processes since 2023.

### ↗ Supply chain law

## Environmental and energy management systems

GRI 2-23/24 GRI 3-3

Suppliers of production materials to Mercedes-Benz Cars and Mercedes-Benz Vans are expected to operate with an environmental management system that is certified according to ISO 14001 or EMAS. Depending on the specific risks, this also applies to suppliers of non-production materials and services. If a supplier does not have a certified environmental management system, the supplier is given two years to set up such a system and have it certified. If this is not done, the supplier may be excluded from receiving new orders.

Moreover, suppliers of services and of non-production materials for CO<sub>2</sub>-intensive commodities will also be requested to sign the “Ambition Letter” that requires them to make their production CO<sub>2</sub>-neutral on the balance sheet or to provide their services in a CO<sub>2</sub>-neutral on the balance sheet fashion by no later than 2039. In addition, project-related CO<sub>2</sub> reduction measures are agreed with non-production material suppliers and service providers in the contract award process, for example through the use of electricity from renewable energy sources as part of the commissioning process.

## Transparency through data

GRI 308-2

Mercedes-Benz Cars and Mercedes-Benz Vans are also cooperating with organizations such as  CDP (formerly Carbon Disclosure Project) so that it can depict the environmental impact of its supply chains even more transparently. The suppliers have been reporting on their environmental impact and climate change mitigation efforts within the framework of the CDP Supply Chain Programme since 2019. CDP provides the corresponding tools for recording, assessing and publishing environmental and climate data. To this end, the company contacted its main suppliers once again in 2022. These suppliers represent around 84% of the annual procurement volume of Mercedes-Benz Cars and Mercedes-Benz Vans. Around 91% of them participated in the survey.

To ensure that the sustainability requirements are met, Mercedes-Benz AG is involved in the cooperation project  “Catena-X”. This project networks companies across industries and allows for a secure exchange of data between all participants in the automotive value chain: from the mining of raw materials to recycling, the data chain is supplemented by each company with product-specific CO<sub>2</sub> data so as to allow the sharing of a product-specific CO<sub>2</sub> footprint that should include as high a proportion of primary data as possible. In the “Catena-X” project group “Sustainability and CO<sub>2</sub>”, the Mercedes-Benz AG is working together with other partners to develop a standard that will make the CO<sub>2</sub> data more comparable and reliable.

## Award for suppliers

The Mercedes-Benz Group considers climate protection and resource conservation in the supply chain to be an element of its cooperative partnership with suppliers. Public recognition for good performance is also important to the company. For this reason, the company also gave awards to suppliers for outstanding sustainability performance in 2022 – for the third successive time and for the first time under the name of  “**Mercedes-Benz Supplier Circle**”.

## Effectiveness and results

GRI 3-3 GRI 308-2

Progress on climate change mitigation in the supply chain is reported at regular intervals in the Group Sustainability Board (GSB). The Mercedes-Benz Group continuously reviews the progress it is making towards its 2039 ambition for passenger cars: since 2020, the “Mercedes-Benz Cars Purchasing and Supplier Quality” procurement unit has been measuring, among other things, the number of suppliers who agree to the “Ambition 2039” statement of intent. By signing, the suppliers agree that, by 2039 at the latest, they will only supply products to the company that are CO<sub>2</sub>-neutral on the balance sheet. The results show that the supplier network of Mercedes-Benz Cars and Mercedes-Benz Vans has largely agreed to the climate targets of the Mercedes-Benz Group, which are formulated in “Ambition 2039”.

Approximately 86%<sup>1</sup> of all suppliers of production material for Mercedes-Benz Cars and Mercedes-Benz Vans registered in the system (as measured on the basis of annual planning procurement volume that, in turn, is based on target figures updated bi-weekly) have signed the ambition letter. CO<sub>2</sub> neutrality on the balance sheet is incorporated into the terms of contract, and the ambition letter is a key criterion for the awarding of contracts. This means that a supplier who does not sign the “Ambition Letter” will not be considered in any new contract tendering process.

In addition, Mercedes-Benz Cars and Mercedes-Benz Vans have developed requirements in the form of interim CO<sub>2</sub> targets for components whose production generates a large amount of CO<sub>2</sub> emissions. These targets are included as criteria during the contract award process and affect a major share of the supply chain emissions of future vehicles. The CO<sub>2</sub>-intensive materials and components include steel, aluminium, certain plastics and also the battery.

In the reporting year, the suppliers of Mercedes-Benz Cars and Mercedes-Benz Vans gave assurances that they would meet the company’s targets for the components across all model series. This means that they will continuously reduce CO<sub>2</sub> emissions, especially for materials and components with high CO<sub>2</sub> emissions, and increase the share of secondary materials.

The goal of the Mercedes-Benz Group is to bring more climate-friendly materials and products into its vehicles as quickly as possible. It is already setting the course for this today and relying among other things on CO<sub>2</sub>-free steel. Compared to conventional steel production, the use of almost 100% scrap saves more than 60% of CO<sub>2</sub> emissions.

<sup>1</sup> The key figure was audited in order to obtain limited assurance.

# Climate protection in production

## Strategy and concepts

### CO<sub>2</sub>-neutral on the balance sheet production

GRI 2-23

The Mercedes-Benz Group formulates the holistic goal of making the mobility of the future more sustainable in its sustainable business strategy. One of the most important targets is the reduction of greenhouse gas emissions. This applies not only to mobility solutions but also to the Group's own production plants. By pursuing its goal of making its own production processes CO<sub>2</sub>-neutral on the balance sheet, the Mercedes-Benz Group intends to act in accordance with the Paris Climate Agreement.

Thus the CO<sub>2</sub> emissions arising from Mercedes-Benz' production operations and the energy supply of the brand's plants will be consistently reduced or, wherever possible, completely eliminated. In order to accomplish this, Mercedes-Benz is relying on the purchase of green electricity, the expansion of other renewable energy sources at its locations and the implementation of a sustainable heating supply system.

The expansion of electric mobility is the key to more sustainable mobility in the future: this is why the Mercedes-Benz Group has designed its worldwide production network with a flexibility that allows the manufacture of fully electric vehicles. Since 2022, eight Mercedes-EQ models have been rolling off the production lines at seven locations. Production at all manufacturing locations operated by the Mercedes-Benz Group has been CO<sub>2</sub>-neutral regarding Scope 1 und Scope 2 since the reporting year.<sup>1</sup> Since early 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) at production facilities operated by the Mercedes-Benz Group that have been as yet unavoidable have been offset by means of carbon offsets from qualified climate change mitigation projects.<sup>1</sup>

### Responsibilities and organisation

GRI 2-24 GRI 3-3

The Mercedes-Benz Group has 30 production locations worldwide, each of which is subject to different regional and national laws. Environmental and climate protection

in production is managed and coordinated across the business units by three regional committees – Germany/Europe, North/South America and Africa/Asia. Through the committees, experts can network across companies and plants and exchange information on legislation, procedures and innovations. In addition, these committees draw up globally valid internal standards and procedures.

### European Union Emissions Trading System

Industrial plants in which CO<sub>2</sub> emissions are caused by the combustion of fossil fuels, and whose licensed [© rated thermal input](#) exceeds 20 MW, must by law participate in the [© European Emissions Trading Scheme \(EU ETS\)](#). The operators of such facilities are required to calculate on an annual basis the CO<sub>2</sub> emissions they generate, report the figures to the responsible authorities, and then submit to the same authorities CO<sub>2</sub> emission certificates in the amount of the reported CO<sub>2</sub> emissions. A major proportion of the CO<sub>2</sub> emission certificates needed must be acquired at a cost via EUA auctions, the commodity exchange or direct trading. At the Mercedes-Benz Group, an in-house committee of experts from various departments defines the procurement strategy and the risk management for the EUA certificates needed by the Group.

Currently, more than 60% of the CO<sub>2</sub> emissions generated at the European production locations of the Mercedes-Benz Group are covered by the EU emissions trading scheme. Through various measures, the Mercedes-Benz Group is attempting to further reduce CO<sub>2</sub> emissions – these also include projects to increase energy efficiency or to expand capacities for regenerative power and heat generation.

<sup>1</sup> This information was audited in order to obtain limited assurance

## German National Emissions Trading System

The new Fuel Emissions Trading Act (BEHG) has introduced CO<sub>2</sub> pricing by means of a national emissions trading process for amounts that are not subject to the EU Emissions Trading System (EU ETS). This law applies to the heating and transport sectors in particular. Accordingly, the Mercedes-Benz Group must ensure the acquisition of certificates for the fossil fuels it uses that are not subject to the EU ETS.

Up to 2025, the Mercedes-Benz Group will make further investments to continue the expansion and installation of photovoltaic systems (PV systems) at more than 50 locations around the world.

The installation of PV systems is already in progress at the German locations in Rastatt, Bremen, Hamburg, Kölleda and Sindelfingen; other sites in the company's global production network will follow, including Kecskemét (Hungary) and Tuscaloosa (USA).

## Measures

### Procuring green electricity

The goal of the Mercedes-Benz Group is to consistently reduce – and, where possible, completely avoid – the CO<sub>2</sub> emissions generated in vehicle production and in the energy supply to the plants. The procurement of green electricity plays a key role in these efforts. Since 2022, all the Mercedes-Benz Group's own production plants worldwide have obtained 100% of their external electricity from renewable sources.

For the procurement of green electricity, the Mercedes-Benz Group in Germany currently relies on a mix of solar, wind and hydroelectric power for external electricity purchases. The electricity is generated in a solar park near Ingolstadt as well as by more than 160 wind turbine systems throughout Germany, plus hydroelectric power plants. This green electricity is generated at the same rate as it is consumed. This ensures that the company's exact electricity needs are met with quarter-hour accuracy using green electricity from the grid.

### Expansion of renewable energies

GRI 3-3 GRI 302-1

Another important pillar of CO<sub>2</sub>-neutral on the balance sheet production for the Mercedes-Benz Group is the expansion of renewable energies at its locations. The aim is to cover more than 70% (cars) and 80% (vans) of the energy requirement in production with renewable energy sources by 2030. In order to continue to cover the energy requirements in production with renewable energies, the Mercedes-Benz Group is, among other things, planning to expand solar and wind energy at its own locations, and to conclude corresponding power purchase agreements.

In September 2022, the Mercedes-Benz Group began its planning for the installation of a wind farm on its test site in Papenburg, northern Germany. By 2025, the plan is to construct several wind turbine systems there, generating more than 100 MW and covering over 15% of the annual power requirement of Mercedes-Benz Group AG in Germany. To this end, the company is planning a long-term cooperation with a partner in the form of a [power purchase agreement \(PPA\)](#) to the value of hundreds of millions of euros. Furthermore, internal studies are ongoing to determine whether the large-scale installation of photovoltaic systems is feasible on the test site. When planning project implementation and ecologically sustainable use of the site, Mercedes-Benz Group AG collaborates closely with the relevant local authorities and interest groups.

In addition, Mercedes-Benz Group is in the final phase of concluding a long-term power supply contract with a major energy provider. The power will be generated by a newly constructed offshore wind farm in Germany, which is due to go into operation by 2027. The supply contract covers more than 25% of the company's entire power requirement in Germany.

The production of the EQS at Factory 56 in Sindelfingen since May 2021 is a great example of the sustainable and CO<sub>2</sub>-neutral on the balance sheet vehicle production of the future at Mercedes-Benz. A PV system supplies the production shop with around 30% of self-generated, green electricity each year – but also feeds a stationary battery bank operated by Mercedes-Benz Energy. It has a capacity of 1400 kWh and serves as a buffer on days when there is little sun, for example.

## More sustainable heat supply

The Mercedes-Benz Group is also reducing CO<sub>2</sub> emissions arising from the plants' heat supply. Among other things, biomethane and geothermal energy are to be used, and heat pumps powered by green electricity are to be put into operation.

In 2022, Mercedes-Benz Cars gradually increased its purchases of biomethane for production processes at German locations. Several Mercedes-Benz production locations use district heating, including the Mercedes-Benz Vans plant in Ludwigsfelde (Germany). This is generated from over 60% renewable energy sources and thus reduces the CO<sub>2</sub> emissions of the company's own Sprinter production at the site. Other Mercedes-Benz locations are supplied by biomass heating plants.

## Offsetting CO<sub>2</sub> emissions

Since early 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) at production facilities operated by the Mercedes-Benz Group that have been as yet unavoidable have been offset by means of carbon offsets from qualified climate change mitigation projects.<sup>2</sup>

Remaining emissions are produced mainly in the combined heat and power plants which generate electricity and heat with natural gas. All offsetting projects comply with international accounting requirements and the high quality demands of the  **Gold Standard**. In this way, the Mercedes-Benz Group supports projects that meet very high quality criteria, are subject to a reliable calculation methodology and avoid double counting. The climate-protection projects not only avoid CO<sub>2</sub> emissions but also promote sustainable, socially beneficial and environmentally friendly development in many ways in the countries where the projects take place. The portfolio includes offset projects such as small-scale biogas plants in Nepal and CO<sub>2</sub>-reduced drinking water treatment in Nigeria and Kenya.

The focus of the Mercedes-Benz Group's climate policy is to reduce and avoid CO<sub>2</sub> emissions. According to the Intergovernmental Panel on Climate Change (IPCC),

the global climate targets cannot be achieved through reduction measures alone. In addition, CO<sub>2</sub> would also have to be removed from the atmosphere. The Mercedes-Benz Group therefore also intends to include CO<sub>2</sub> removal projects in its portfolio in the future.

## Global battery production network

Mercedes-Benz aims to be fully electric by 2030 – wherever market conditions permit. In this process, the local production of batteries is a crucial element for flexibly and efficiently meeting the global demand for electric vehicles. To this end, Mercedes-Benz relies on a global battery production network, which is an important component of the worldwide production network.

The network consists of factories on three continents: battery systems are manufactured in Kamenz (Saxony), in the Hedelfingen part of the Untertürkheim plant in Stuttgart, as well as in Bangkok (Thailand), Beijing (China) and Jawor (Poland). The battery plant in Esslingen-Brühl near Stuttgart started production of plug-in hybrid batteries in mid-2022; the battery factory in Tuscaloosa, USA, began operations in the reporting year. The Mercedes-Benz battery production network will also be supplemented by a further battery factory at the Sindelfingen location. To further reinforce its capacities in the global battery production network, the company is cooperating with GROB in Mindelheim – a specialist in the field of battery plant technology. The goal is to jointly develop and set up assembly systems for upcoming battery modules and systems. The plants are to produce batteries for the Mercedes-Benz EQ models that will leave the production lines from 2025.

## More sustainable transport logistics

On the way towards CO<sub>2</sub>-neutral on the balance sheet transport logistics, Mercedes-Benz AG is committed to the prevention and reduction of CO<sub>2</sub> emissions in the global transport network. In 2022 around 2 million Mercedes-Benz vehicles were transported around the world. In addition, the European production networks of Mercedes-Benz AG received nearly 6.6 million t of production materials. Mercedes-Benz AG is continually optimising its logistics in order to reduce the associated CO<sub>2</sub> emissions.

<sup>2</sup> This information was audited in order to obtain limited assurance

Among other things, in the reporting year, the company improved the transport network for the supply to the Asian markets: thanks to shorter transport routes, around 20,000 t of CO<sub>2</sub> were avoided, compared with the previous year. The company also wants to shift more transport from road to rail, and is focusing on an expansion of rail transport: in August 2022, work began on a new rail siding with logistics centre at the Mercedes-Benz plant in Jawor (Poland). This expansion is to facilitate the delivery of batteries from Jawor to Mercedes-Benz plants around the world from 2024.

Together with DB Cargo, the company opened the logistics centre for the Mercedes-Benz plant in Bremen in 2021. The Centre for Battery Logistics is the hub of the CO<sub>2</sub>-neutral on the balance sheet logistics concept for the battery systems of the new Mercedes EQ model, the EQE. Since 2022, DB Cargo has been transporting the systems on a CO<sub>2</sub>-neutral on the balance sheet basis from the Mercedes-Benz Hedelfingen plant in Stuttgart to Bremen by using green electricity. For marine transport of components from Bremerhaven to India, Mercedes-Benz AG relies on biofuels and was able to reduce CO<sub>2</sub> emissions by around 9,000 t in the reporting year compared with the previous year. Furthermore, in close cooperation with its transport service providers, Mercedes-Benz AG is examining innovative transport concepts and new means of transport such as freight sailing ships to further avoid and reduce emissions in its logistics. Until these climate-friendly transport alternatives and technologies become available, Mercedes-Benz AG continues to support qualified climate protection projects.

## More sustainable sales operations

The Mercedes-Benz Group has set itself the goal of making its sales more climate-friendly – but this can only be achieved with the support of its sales partners.

By 2030, all sales partners worldwide are expected to achieve the goal of CO<sub>2</sub>-neutral on the balance sheet operation. The focus here is on identifying and implementing measures that help to avoid and reduce CO<sub>2</sub> emissions. This includes switching to green electricity contracts, the energy-efficient refurbishment of existing buildings and the construction of highly energy-efficient new buildings. This is based on the global CO<sub>2</sub> emissions of the Mercedes-Benz Sales

Organisation, which the company determined for the first time in the reporting year, as well on continuous reporting for subsequent years. This enables the Mercedes-Benz Group to check the effectiveness of the implemented measures and to measure the realised CO<sub>2</sub> reduction. In addition, it plans to develop an interactive platform in 2023 which includes all concepts, tools and measures relevant to CO<sub>2</sub> reduction. At the same time, the platform is intended to provide the strategic framework for the sustainability efforts of the Mercedes-Benz Sales Organisation.

The own-retail outlets of Mercedes-Benz AG in Germany, like the Mercedes-Benz plants, have been operated on a CO<sub>2</sub>-neutral on the balance sheet basis with effect from 2022. In addition to the nationwide switch to green electricity, the focus in the reporting year was on avoiding or reducing energy consumption in the own-retail outlets and sales buildings – for example, by switching to LED lighting and taking modernisation measures. Increasing energy efficiency remains the focus of the dealerships.

## Effectiveness and results

### Effectiveness of the management approach

GRI 3-3

The Mercedes-Benz Group uses internal and external tools to determine how much progress its plants are making in achieving the climate-protection targets. The Mercedes-Benz Group has defined the parameters for in-house reviews, and it regularly monitors these parameters. An external auditing company annually audits a selection of corporate goals and their implementation. The company uses the results to adapt and further develop its climate protection measures.

### Results

GRI 302-1 GRI 305-5

The Mercedes-Benz Group has been systematically recording climate protection measures in a database for many years. Using the data, it can efficiently monitor its self-designated targets, as the respective measures can be stored and tracked in the database with the corresponding calculations for CO<sub>2</sub> reduction.

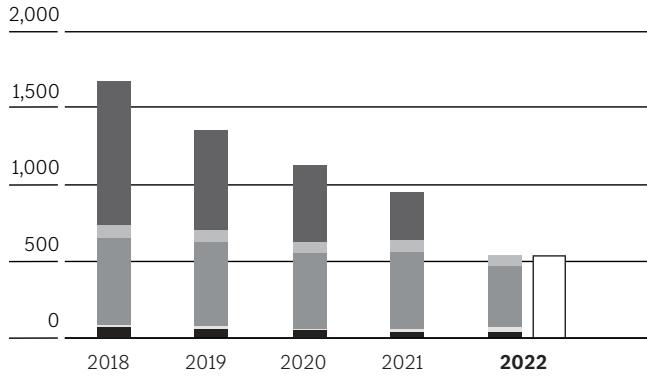
During the reporting year, Mercedes-Benz Cars and Mercedes-Benz Vans employed a bundle of measures that enabled them to reduce CO<sub>2</sub> emissions in production (Scope 1<sup>3</sup> and Scope 2<sup>4</sup>) from 946,038 t in 2021 to 537,821 t in the year under review, and thus by 43% compared to the previous year. In the reporting year, the Mercedes-Benz Group already achieved its target of reducing CO<sub>2</sub> emissions at its own plants (Scope 1<sup>3</sup> and Scope 2<sup>4</sup>) by 50% by 2030 compared to 2018. This target was confirmed by SBTi (in 2018, Scope 1 emissions comprised 650,000 t CO<sub>2</sub> and Scope 2 emissions 1,040,000 t CO<sub>2</sub>) and is also being pursued beyond the production sites for the central functions considered. Since early 2022, all CO<sub>2</sub> emissions (Scope 1 and Scope 2) at production facilities operated by the Mercedes-Benz Group that have been as yet unavoidable have been offset by means of carbon offsets from qualified climate change mitigation projects.<sup>5</sup>

### Scope 1 (direct) and Scope 2 (indirect) CO<sub>2</sub> emissions in production

GRI 302-1/-5



in 1,000 t



Scope 1: direct CO<sub>2</sub> emissions

■ Fuels

■ District heat (market-based)

■ Liquefied petroleum gas, heating oil

■ Electricity (market-based)

■ Natural gas

Scope 2: indirect CO<sub>2</sub> emissions

■ District heat (market-based)

■ Electricity (market-based)

□ CO<sub>2</sub> compensation for unavoidable emissions<sup>1</sup>

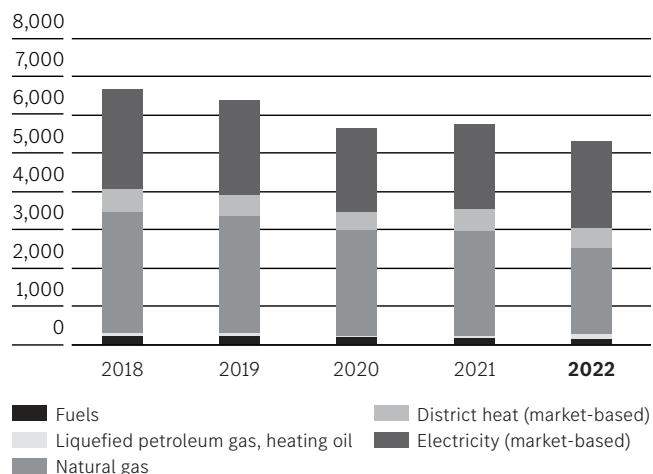
<sup>1</sup> Compensation amounts up to 2021 are not shown. These are small quantities.

In the production of Mercedes-Benz Cars, renewable energies accounted for 100% (1,956 GWh) of total electricity consumption and 48% (2,044 GWh) of total energy consumption in the reporting year. At Mercedes-Benz Vans, renewable energy accounted for 100% (326 GWh) of total electricity consumption and 38% (341 GWh) of total energy consumption.

### Energy consumption in production

GRI 302-1/-5

in GWh



<sup>3</sup> Scope 1 emissions are direct greenhouse gas emissions from sources that are the direct responsibility of or controlled by the company

<sup>4</sup> Scope 2 emissions are indirect greenhouse emissions from bought-in energy, such as electricity, or district heating that are externally generated but used by the company

<sup>5</sup> This information was audited in order to obtain limited assurance

# Key figures

## CO<sub>2</sub> emissions from energy consumption (in 1,000 t)<sup>3</sup>

**GRI 305-1/-2**

	<b>2021<sup>2</sup></b>	<b>2022</b>
CO <sub>2</sub> direct (Scope 1)	681	<b>569</b>
CO <sub>2</sub> indirect (Scope 2) – Market-based	466	<b>94</b>
CO <sub>2</sub> indirect (Scope 2) – Location-based	1,123	<b>1,121</b>
<b>Total – Market-based<sup>1</sup></b>	<b>1,148</b>	<b>663</b>
<b>Total – Location-based<sup>1</sup></b>	<b>1,805</b>	<b>1,690</b>

1 Since 2016, the “Market-based” and “Location-based” accounting approaches have been implemented in accordance with GHG Protocol Scope 2 Guidance.  
 Since then, the Market-based-approach has been the standard accounting method.

2 These data have been adjusted due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, nonetheless, they still contain minor uncertainties as adjustments for combined locations and units can first be made in financial year 2022.

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

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

**GRI 305-1/-2**

	<b>2017</b>	<b>2018</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>
Cars	CO <sub>2</sub> direct (Scope 1)	250	267	279	326	349
	CO <sub>2</sub> indirect (Scope 2) – Market-based <sup>2</sup>	565	562	431	426	306
	<b>Total – scope 1 &amp; 2</b>	<b>815</b>	<b>829</b>	<b>711</b>	<b>752</b>	<b>655</b>
Vans	CO <sub>2</sub> direct (Scope 1)	340	355	346	333	353
	CO <sub>2</sub> indirect (Scope 2) – Market-based <sup>2</sup>	157	196	160	147	141
	<b>Total – scope 1 &amp; 2</b>	<b>497</b>	<b>551</b>	<b>506</b>	<b>479</b>	<b>493</b>

1 Excluding CO<sub>2</sub> from liquid fuels

2 Since 2016, the “Market-based” and “Location-based” accounting approaches have been implemented in accordance with GHG Protocol Scope 2 Guidance.  
 Since then, the Market-based-approach has been the standard accounting method.

A landscape photograph showing a winding asphalt road through a green, hilly terrain. In the background, several wind turbines stand tall against a blue sky with white clouds. A silver car is driving on the road towards the right side of the frame.

Air quality

## Materiality and goals

GRI 3-3

Target	Target horizon	Status as of 2022
The entire new car fleet of the Mercedes-Benz Group is no longer to have any relevant effect on nitrogen dioxide pollution in urban areas.	2025	Achieved

The corporate responsibility of the Mercedes-Benz Group as an automotive manufacturer includes bringing individual mobility, climate protection and air quality into harmony. Inner-city air quality is an important environmental aspect for the Group.

The EU Commission is actively imposing stricter limits for air pollutants: its proposed revision of the European Air Quality Directives includes standards envisaged for the period from 2030, which are more closely aligned with the guidelines of the World Health Organization (WHO). The proposed legislation is being negotiated between the European Parliament and the Member States.

In addition, the EU Commission presented its proposal for the new Euro 7 emission standard on 10 November 2022: the successor to the Euro 6 emission standard tightens the limits for pollutant emissions of vehicles. In addition to new exhaust emission regulations, the proposed legislation also envisages particulate matter limits for brake and tyre abrasion for the first time. In this context, the EU Commission announced that it would develop a measurement method for tyre abrasion by the end of 2024.

To comply with future regulatory requirements, the Mercedes-Benz Group is constantly advancing its technologies.

# Improving air quality in urban areas

## Strategy and concepts

### Fewer air pollutants – in vehicles and production

GRI 3-3

In order to reduce the pollutant emissions of its vehicles, the Mercedes-Benz Group specifies certain properties and necessary measures in the concept and/or performance specifications for the engines. These concept and performance specifications are approved by the Committee for Model Policy and Product Planning. This is the highest body at Mercedes-Benz Cars, and it determines all product-related topics.

However, it is not only the vehicles of the Mercedes-Benz Group that produce air pollutant emissions, its production locations also play a part: reducing them is a constant task and challenge – for the plant and equipment planning as well as for daily operations.

Depending on their type and size, the plants in Germany are legally obliged to appoint immission control officers. Depending on the air pollutant, the maximum values and requirements for emissions and immissions are regulated by law – these apply as the benchmark for the production plants and for product development at the Mercedes-Benz Group.

Of particular importance are so-called volatile organic compounds (VOCs). In addition, the heat and power generation plants release nitrogen and sulphur oxides as well as fine particles. The latter also occur in the extraction of welding smoke from the body shop areas. All three are also significant air pollutants that must be reduced.

## Measures

In order to further reduce the pollutant emissions of its vehicles and production locations, the Mercedes-Benz Group intends to continue developing measures.

### Measures in the development and production processes

Product design is a central starting point for the Mercedes-Benz Group for improving its performance in the area of air pollutant emissions from the ground up. The Group is continuously working on suitable solutions and is investing in appropriate technologies and measures to ensure that the air quality continues to improve.

### Diesel engines cause less nitrogen oxide emissions

The Mercedes-Benz Group has further reduced the NO<sub>x</sub> emissions of its diesel engines through technologically innovative approaches. This was made possible by a complete package of engine and exhaust gas aftertreatment.

Vehicles with diesel engines of the latest generation have low NO<sub>x</sub> emissions in real driving – on many journeys they actually record values according to the RDE measuring process that are significantly lower than the current laboratory threshold limit of 80 mg/km. In continuous operation covering many thousands of kilometres under RDE conditions, they achieve average emissions of around 20 to 30 mg NO<sub>x</sub>/km.

### Technical Compliance Management System

GRI 416-2

The work in the development departments requires precise knowledge of the processes and framework conditions – this is the only way to ensure that technical/regulatory requirements, standards and laws are systematically complied with. That is why Mercedes-Benz Cars and Mercedes-Benz Vans support their employees with a “technical Compliance

Management System" (tCMS). This is to ensure that all legal and regulatory requirements are met throughout the product development and certification process.

#### ↗ Compliance with technical and regulatory requirements

### Reduced solvent emissions in production

The Mercedes-Benz Group seeks to be a leader in dealing with the production-related emissions of VOCs in the automotive sector. VOC refers to a group of highly volatile organic hydrocarbon compounds. These substances can easily pass from the liquid to the gaseous phase and are frequently harmful to human health. In automobile production, VOCs are primarily released in the vehicle painting process. Different countries use a variety of methods to define and record VOCs; as a result, it is difficult to achieve uniform worldwide documentation. Moreover, the documentation of these emissions must be in conformity with various legislative limit value specifications.

In order to reduce VOC emissions at its own production locations, the Mercedes-Benz Group plans to modernise and optimise old paint systems or build new ones in the coming years. In addition, Mercedes-Benz AG has concluded a public-law agreement with the City of Sindelfingen: It stipulates that the Mercedes-Benz Group may not release more than 20 g of VOC per square metre of painted vehicle surface at the Mercedes-Benz Sindelfingen plant. Measurements show that the actual emissions achieved at the Sindelfingen plant are lower.

### Measures in the use phase

Intelligent utilisation concepts allow a further reduction in pollutant emissions. The Mercedes-Benz Group has also developed comprehensive concepts for air quality in the vehicle cabin for the protection of drivers and passengers.

### Hardware retrofit promoted

Mercedes-Benz Group AG is participating in a voluntary hardware retrofit programme for diesel vehicles initiated by the German federal government. Specifically, the parent company subsidises hardware retrofitting with up to €3000 incl. VAT per vehicle – provided certain conditions are met. The hardware retrofit must be developed and offered by a third-party supplier and approved by Germany's Federal Motor Transport

Authority (KBA). The offer is aimed at private owners of affected Mercedes-Benz models who have their primary residence in a priority region. These regions were defined by the Federal Ministry of Transport and Digital Infrastructure in 2017.

The air quality in the 15 priority regions has improved demonstrably since 2017. Even though the demand for hardware retrofit has decreased significantly, the programme will continue until further notice.

### Brake abrasion as a source of particulate matter

When a vehicle is braked, the abrasion of the brake linings and brake discs produces what is known as brake dust. In order to be able to investigate the type and volume of particulate matter contained in this dust, a reliable measurement method is needed. Against this background, the Mercedes-Benz Group is an active member of the "Particle Measurement Programme" Working Group of the United Nations Economic Commission for Europe (UNECE). The aim is to develop a reliable measurement method.

In addition, the Mercedes-Benz Group is involved in other working groups dealing with the issue of particle emissions during braking – including those of the German Association of the Automotive Industry (VDA), the European Automobile Manufacturers' Association (ACEA) and the International Automobile Manufacturers' Association (OICA).

At the same time, the Mercedes-Benz Group examines actual values of the volume of particulate matter produced and the effect of potential measures in order to reduce the brake abrasion of its own vehicles.

As a consequence of the increasing share of hybrid and battery-electric vehicles, brake dust emissions are falling significantly, since a considerable proportion of the deceleration in these vehicles takes place through the process of recuperation by the electric motors and thus almost or completely without any brake dust emissions.

Nevertheless, the Mercedes-Benz Group continues to cooperate with scientific institutes and conducts research into braking, also with respect to tyre abrasion. Current research on tyre abrasion involves the development of a measurement method that

characterises the tyre abrasion with regard to microplastics. The Group is constantly advancing its technologies with a view to staying below the recommendations of the EU Commission and future limits today and in the future.

### Actively improving air quality

The “ technology platform SUSTAINEER” based on the eSprinter from Mercedes-Benz Vans integrates a variety of innovative solutions for more sustainable delivery operations – and has the potential to contribute to better air quality in cities in the future: In addition to battery-electric drive, the “SUSTAINEER” has fine particulate matter filters on board that compensate particulate emissions in the immediate vicinity of the vehicle. A filter is integrated into the front module and – together with the suction fan that is already in the vehicle – filters particulate matter from the air. This enables it to also filter the surrounding air at low driving speeds and during the charging process. In addition, low-emission and low-wear brake discs and tyres optimised for low rolling resistance with less wear reduce the technology platform’s own particulate emissions.

In order to gain comprehensive knowledge about this technology in terms of effectiveness, weather influences and service life in real operation, Mercedes-Benz Vans, the Austrian Postal Service and MANN+HUMMEL launched a pilot project in the reporting year. For this purpose, two eSprinters were equipped with optimised particulate filters in the front module. These vehicles have been on the streets in the Graz city centre since August 2022. In addition, built-in sensors determine values for the concentration of particulate matter. The project is supported by the Institute for Energy and Environmental Technology in Duisburg.

### Local concepts for air quality

Intelligent mobility and logistics concepts can also help to improve air quality in cities. In the reporting year 2022, the Mercedes-Benz Group initiated measures for environmentally friendly employee mobility at the Sindelfingen location under the leadership of the Corporate Mobility Working Group. Measures include buses for commuters and a concept for providing bicycles.

As part of the local “Mobility Pact Rastatt”, for example, Mercedes-Benz AG has continued to push ahead with

the establishment of a cross-border bus service for employee transport between Rastatt and Alsace. The line is to be tied into the local public transport system and enable employees from Alsace to commute more sustainably between the plant and their homes. The concept also contributes to reducing the regional traffic volume. The bus line to Alsace started operation in December 2022.

On the initiative of the management and the General Works Council of the Mercedes-Benz Group, the Group has been offering employees of Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG the opportunity to order up to two bicycles since April 2022. These are financed through deferred compensation from collectively agreed benefits, among other things. For this purpose, the three companies have concluded a general works agreement on the provision of bicycles with the employee representatives.

Since 2021, the Mercedes-Benz Group has also been using the car sharing app “FreeFloating” at the Sindelfingen location for short trips with a company car: As part of the pilot project, employees can borrow and return the vehicles at the plant exclusively via the app. In view of the positive feedback, the car sharing app was also introduced in Stuttgart in October 2022 – the plants in Bremen and Rastatt are to be integrated into the scheme in early 2023.

Complementing the ViaVan service in Bremen, the on-demand shuttle service “VAN2SHARE” has been available at the Sindelfingen location since September 2022: employees are able to make individual travel requests for business purposes, including off-site, via an app. These are then intelligently coordinated. If required, up to six fully electric vans can be in use. “VAN2SHARE” is intended to replace little-used diesel-powered bus services; it is hoped that this will save around 95 t of CO<sub>2</sub> annually.

### Reducing interior emissions and allergens

Clean air and allergy-tested surfaces in vehicle interiors are very important for the safety and comfort of the occupants. During the vehicle development, the Mercedes-Benz Group therefore makes sure that emissions and allergens in the interior are reduced.

In addition, it uses filters in the air conditioning system that limit the penetration of allergens. Since 2016, many of the Mercedes-Benz passenger car model series have carried the European Centre for Allergy Research Foundation (ECARF) Seal of Quality for vehicle interiors. The ECARF seal is awarded to products whose anti-allergenic properties have been demonstrated in scientific studies.

The following measures also contribute to reducing interior emissions and allergens in vehicles of the Mercedes-Benz brand:

- Further development of the delivery specifications with regard to emissions and odours in vehicle interiors – including limit value specifications for suppliers
- Continuous component optimisation and further development of the materials and manufacturing processes used for interior components
- Verification of the interior emissions through measurements in the company's own vehicle test chamber

## Effectiveness and results

GRI 3-3

The Mercedes-Benz Group regularly reviews the plants' compliance with the internal and external environmental protection requirements and reporting obligations as part of the environmental management activities at its production facilities. Among other things, control checks are carried out to see whether the plants' operations are in compliance with the laws regarding air emissions. Should any environmentally relevant incidents occur, the Mercedes-Benz Group records them and remedies any damage. The management system is monitored both through external audits as part of the ISO 14001 certification and EMAS validation processes as well as through internal environmental risk assessments (environmental [due diligence](#) process).

The Mercedes-Benz Group takes the pollutant emissions of its vehicles into account at an early stage of the development process. In the documentation that

accompanies the development, the Group specifies certain characteristics and target values for each vehicle model and engine variant. The Mercedes-Benz Group also uses these specifications to evaluate milestones it achieves during the product development. Here, it compares the actual project status with the target values and – if necessary – initiates corrective measures.

The current Mercedes-Benz vehicles with Euro 6d emission standard have only a very small impact on NO<sub>2</sub> pollution in cities due to their low emission level. The Mercedes-Benz Group has demonstrated this by means of detailed modelling in different high-traffic areas – so-called hotspots – in Stuttgart, Berlin and Munich, and has discussed the matter with external experts. The modelling approach takes into account both vehicle and traffic-related information – for example, the distance the vehicles have travelled to the hotspot. If all cars and vans in these high-traffic areas were to be replaced by new Euro 6d cars with combustion engines, their NO<sub>2</sub> contribution to air quality in these areas would be reduced to less than 2 µg/m<sup>3</sup>. This means that the Mercedes-Benz new passenger car and van fleet no longer has any relevant influence on inner-city air quality values. Thanks to the increasing electrification of the fleet, the NO<sub>2</sub> values will continue to improve. At the same time, the Mercedes-Benz Group is continuously working on further reducing the emissions of the vehicle fleet with combustion engines in order to meet future emission standards.

## Settlement of the legal dispute over diesel emissions

GRI 2-27

In 2020, Mercedes-Benz Group AG – formerly Daimler AG – and its subsidiary Mercedes-Benz USA LLC (MBUSA) took another important step toward obtaining legal certainty in connection with various diesel-related proceedings in the USA. After the US regulatory authorities agreed to a settlement of civil and environmental claims in September 2020, this settlement was approved by the competent US federal court for the District of Columbia in the reporting year. With this court approval, the settlement became effective. The regulatory proceedings regarding the emission control systems of approximately 250,000 diesel vehicles in the USA have thus come to a conclusion.

Mercedes-Benz Group AG and Mercedes-Benz USA LLC have cooperated fully with the US regulatory authorities in the investigation of the incidents. In the course of the proceedings, they did not receive a Notice of Violation from the [Environmental Protection Agency \(EPA\)](#) or the [California Air Resources Board \(CARB\)](#). In contrast to the settlement agreements of other manufacturers, Mercedes-Benz Group AG and Mercedes-Benz USA LLC were also not placed under the supervision of an external controller (compliance monitor).

Another settlement agreement for civil claims brought by consumers for 215,000 vehicles was implemented after its court approval. The settlement period ended on 1 October 2022, as a consequence of which the implementation of the settlement was completed shortly afterwards.

As set forth in the settlement agreements, Mercedes-Benz Group AG and Mercedes-Benz USA LLC deny the allegations made by the agencies and claims made by consumers in the class action lawsuit resolved by the settlement and do not admit any liability vis-à-vis the USA, California, the plaintiffs or otherwise. The settlements mark the end of the pending civil proceedings of Mercedes-Benz Group AG and Mercedes-Benz USA LLC with the US authorities and consumers, without establishing whether functionalities in the vehicles constitute inadmissible defeat devices.

On the basis of the existing compliance programme, the Mercedes-Benz Group consolidated its existing processes and structures into a Group-wide “technical Compliance Management System” (tCMS) in the year 2016 and has instituted a series of measures to reinforce technical compliance since that time. To this end, the Mercedes-Benz Group AG has invested in appropriate resources and created jobs. The elements of the tCMS are listed in the Compliance Operating Plan, which is an annex to the settlement agreement with the US government. As part of the settlement with the US authorities, Mercedes-Benz Group has agreed to keep advancing the existing tCMS on a continuous basis.

A detailed description of the institutional proceedings related to diesel emissions can be found in the Group's risk report.

#### [Risk and Opportunity Report, AR 2022](#)

In the reporting year, the European Commission, Mercedes-Benz Group AG and other German car manufacturers also agreed on a settlement, and thus concluded the proceedings for anti-competitive behaviour in connection with the development of SCR [catalytic converter](#) systems for passenger cars with diesel engines. The proceedings related to the period between 2009 and 2014.

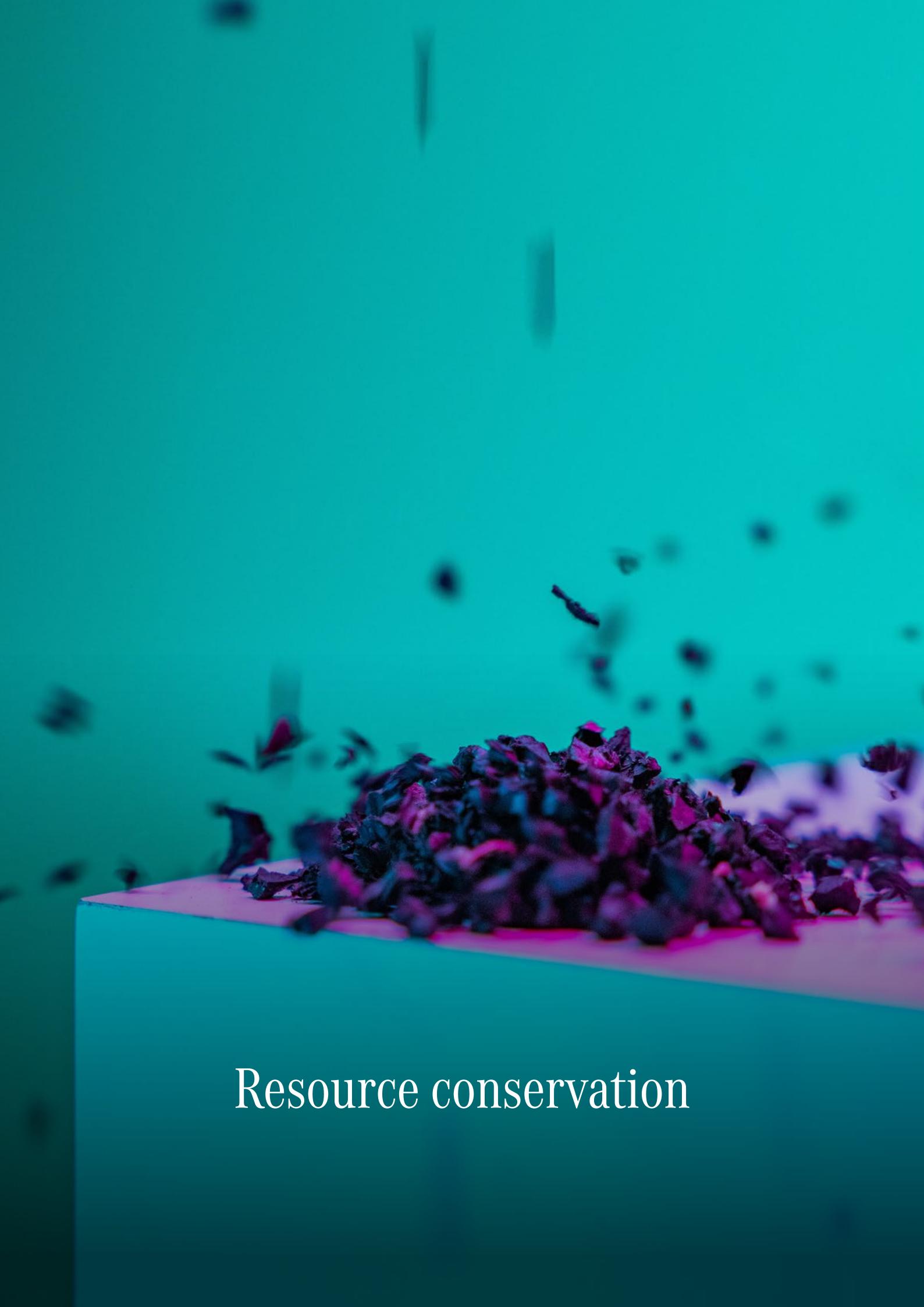
# Key figures

## Airborne emissions (in t)

GRI 305-7

	2021 <sup>1</sup>	2022
Solvents (VOC)	3,780	<b>4,036</b>
Sulphur dioxide (SO <sub>2</sub> )	13	<b>20</b>
Carbon monoxide (CO)	1,269	<b>1,077</b>
Oxides of nitrogen (NOx)	625	<b>455</b>
Dust (total)	149	<b>108</b>

<sup>1</sup> These data have been adjusted due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, nonetheless, they still contain minor uncertainties as adjustments for combined locations and units can first be made in financial year 2022.



Resource conservation

## Materiality and targets

GRI 3-3

Target	Target horizon	Status as of 2022
Increase the share of secondary raw materials per vehicle <sup>1</sup> - Cars 40%	2030	According to plan
Reduce energy consumption per vehicle <sup>2</sup> - Cars -43% - Vans -25%	2030	According to plan
Reduce water consumption per vehicle <sup>2</sup> - Cars -33% - Vans -28%	2030	According to plan
Reduce the amount of disposal waste per vehicle <sup>3</sup> - Cars -82% - Vans -85%	2030	According to plan
Reduce the total amount of waste per vehicle <sup>3</sup> - Cars -35% - Vans -30%	2030	According to plan

1 On average for the Mercedes-Benz passenger car fleet excluding smart and Vans.

2 In production compared to average for 2013/2014.

3 In production compared to 2018.

The increasing demand for mobility is also leading to an increase in the worldwide consumption of resources – with negative consequences for the environment and society. For example, in many cases the extraction and further processing of primary raw materials is energy-intensive and leads to the emission of pollutants into water, soil and air. Not least, the use of natural resources also entails social risks. That's why the goal of the Mercedes-Benz Group is to increasingly decouple its consumption of resources from the growth of its production volume: it has set out to reduce the use of

primary resources per vehicle. By 2030, the share of secondary raw materials for the passenger car fleet is to be increased to an average of 40%. This is how the Group wants to contribute to the promotion of both economic growth and sustainability. The Mercedes-Benz Group can only succeed in this by consistently conserving resources and further closing the recycling loops.

To reduce the consumption of energy, water and waste, the Group works continuously to make its production more efficient and environmentally friendly.

# More resource-efficient vehicles

## Strategy and concepts

### Decoupling resource consumption from growth

GRI 3-3

Today, the vehicles of the Mercedes-Benz Group consist mainly of materials such as steel, iron, aluminium and plastic. However, natural resources are required for their production. The Group's goal is to keep precisely this consumption of natural resources as low as possible.

As electric mobility becomes more widespread, the demand for specific raw materials is also changing. Examples are cobalt and lithium, along with nickel, graphite, manganese and copper. The Mercedes-Benz Group takes an in-depth look at these raw materials in the context of comprehensive raw material assessments in order to counter both potential human rights risks and environmental risks. In addition, the Mercedes-Benz Group has a strategy for important raw materials that are sourced both directly and indirectly, which safeguards its requirements for the long term. In the case of critical raw materials, the strategy focuses on intensive research of substitution technologies and ensuring the responsible procurement of raw materials.

#### ↗ Battery development

The Mercedes-Benz Group's vision therefore is, as far as possible, to transform its entire value chain into a closed loop. To this end, it wants to return its production waste and used materials to the material cycle, including for example the batteries from electric vehicles, which still contain a considerable quantity of valuable materials. The recycling and reuse of these and many other raw materials is at the focus of the Group's current strategic activities and will remain so in the future. It is both important and necessary to involve suppliers even more strongly – for example through dialogue and clear objectives. In addition, the Mercedes-Benz Group is involved in various initiatives

with the aim, among other things, of reducing the resource consumption of important raw material industries.

### Resource use

GRI 3-3 GRI 301-1

In the Mercedes-Benz Group, the areas of vehicle concepts, vehicle development, procurement, production planning and manufacture are primarily responsible for ensuring that resources are used sparingly. Decisions in this topic area are made by the specialist committees responsible for the respective model series, comprised of representatives of the individual shops involved.

### Decoupling

#### Global vehicle sales



Promoting the circular economy  
Reducing resource consumption



#### Resource consumption

Time →

Corporate management is always involved in fundamental decision-making regarding design concepts, manufacturing technologies and the utilisation of materials. When making such decisions, it takes multiple factors into account. These include costs, resource-efficient technologies, and the use of alternatives such as secondary materials and renewable raw materials and the potential for industrialisation. In the process, the Group's management examines the extent to which development results can be transferred to large-scale industrial production, for example, with regard to the use of raw materials.

Mercedes-Benz Cars and Mercedes-Benz Vans use approximately 4.7 million t of raw materials per year for the production of their products. Both segments are focusing on further reducing the quantities of raw materials required per vehicle in particular. To this end, they already follow the “Design for Environment” approach during vehicle development: accordingly, the specialist units already consider the composition of all materials to be used and investigate more sustainable alternatives during the concept phase. This applies both to surface materials and to materials which are not visible to customers. Examples in vehicle interiors include sustainably processed leather, fabrics with a high **recycled content** and innovative materials. For the body panels and body-in-white, Mercedes-Benz uses materials such as recycled aluminium and steel, among others. Going forward, the aim is for the vehicles to be more resource-efficient and environmentally friendly throughout their entire lifecycle. The cornerstones of the approach are the use of recycled materials as well as lightweight construction techniques and recycling.

### Identifying critical raw materials

Several types of raw materials which are needed for the production of electric vehicles are associated with certain risks. In order to better assess how critical the use of a raw material is or can become, Mercedes-Benz Cars and Mercedes-Benz Vans, together with partners from industry and science, conducted the “ESSENZ” research project back in 2015. The result is a holistic approach that is still used by engineers in both segments in the early stages of vehicle development. The procedure of the “ESSENZ” method is based on the lifecycle assessment methodology, which allows a systematic analysis of the environmental impacts along the entire lifecycle of a vehicle. However, in the “ESSENZ” approach, along with the geological availability, consideration is also given to socio-economic factors as well as social and societal risks.

### Resource conservation along the supply chain

**GRI 3-3 GRI 308-1/-2**

The supply chain plays an important role in efforts to conserve resources. The Mercedes-Benz Group wants to decouple resource consumption from economic growth. To achieve this goal, it is relying on the support of its suppliers. It wants to continuously increase the use of secondary and renewable materials in its vehicles.

Against this background, Mercedes-Benz AG already carried out a risk analysis in 2018. Steel, aluminium and plastics have been identified as particularly important materials in Mercedes-Benz vehicles. We need large volumes of these materials for the production of our vehicles, and their extraction and processing also consume large amounts of energy and resources. In 2020, Mercedes-Benz AG defined secondary material targets for these resources for Mercedes-Benz Cars and Mercedes-Benz Vans and anchored these in the requirements for all contract awards.

With its **Responsible Sourcing Standards**, the Mercedes-Benz Group has also incorporated other environmental requirements into its supplier agreements, including stipulations relating to compliance with environmental due diligence obligations and the use of resource-efficient production methods.

#### ➤ Sustainable materials

## Measures

### Secondary materials and renewable raw materials

**GRI 301-2**

The closing of material cycles and the use of renewable raw materials are key measures for the responsible utilisation of resources. In order to achieve these goals, the Mercedes-Benz Group uses resource-efficient technologies and production processes. In addition, the Mercedes-Benz Group is increasingly using secondary materials such as recycled materials in its vehicles, along with renewable raw materials.

The Mercedes-Benz Group has set itself the target of increasing the use of secondary raw materials for the passenger car fleet to an average of 40% by 2030. In addition, since 2005 it has already been providing transparency concerning those products in which secondary raw materials are used. For this purpose, publicly viewable environmental certificates are created for the **“360° Environmental Check”**. The test reports show, among other things, which components are made partly from resource-saving materials.

## Use of secondary raw materials

Today, numerous series-production vehicles from Mercedes-Benz Cars and Mercedes-Benz Vans already contain recycled materials such as aluminium. This light alloy can be recycled without any loss of quality, while the recycling process uses only about 5% of the energy that would be needed to produce the aluminium from scratch. In its efforts to keep increasing the recycled content, Mercedes-Benz AG is working with its suppliers to develop aluminium alloys with a high end-of-life scrap potential, for example from old vehicles or packaging, which at the same time meet the high expectations in terms of quality, safety and durability.

For the vehicle interior, the Mercedes-Benz Group offers various leather-free trim and upholstery options. These include high-quality man-made leather and a microfibre weave. The latter is used for components such as seat covers, roof liners or pillar claddings, and is made up of around 50% recycled material. The recycled content is to be steadily increased in the future. In addition, Mercedes-Benz offers various interior upholstery fabrics produced from up to 100% recycled PET bottles. As part of its sustainable business strategy, the Mercedes-Benz Group also relies on the use of natural fibres and textiles to replace conventional plastics with renewable raw materials.

Another example of the possible use of secondary raw materials is SUSTAINEER, a [technology platform](#) based on the eSprinter: its underbody panelling is made of recycled polypropylene, used tyres and the filler UBQ™. Mercedes-Benz Vans uses natural straw panels for the partition wall between the cab and load compartment. They are recyclable, biodegradable, formaldehyde-free and can be given a waterproof coating. All wooden elements are FSC®-certified; in other words, the wood comes from sustainably managed forests.

In the EQS, components with a total weight of over 80 kg are made partly from resource-saving materials. For example, the load compartment recess for the EQS is manufactured in an innovative injection moulding process and includes 60% recycled content. In addition, the thermoplastic material is easy to recycle, which conserves resources. In the upcoming E-Class, it is planned to make the load compartment well out of

recycled material to 80%. The floor coverings in the EQS use a nylon yarn made from recycled carpets and recycled fishing nets. In the EQE a total of 184 components, as well as small parts such as press studs, plastic nuts and line fasteners, representing a total weight of 78.3 kilos, can currently be made partly from resource-saving materials.

As part of a pilot series, both the EQE and EQS will be equipped with cable ducts containing the plastic-substitute material UBQ™. The UBQ™ material is obtained from mixed household waste, which was previously difficult to recycle and was therefore often incinerated or ended up as landfill. Food scraps and mixed plastics are among the materials used to make UBQ™. Additional applications of this new material for the production of underbody panels, wheel arch linings and engine compartment covers are being tested.

The Mercedes-Benz Group also relies on further innovative recycling processes and cooperations with partners to close the recycling loops. One example is chemical recycling: the company Pyrum Innovations AG first produces a [pyrolysis oil](#) from old tyres, which is then combined with biomethane from agricultural waste by the chemical company BASF. Using the two raw materials, the [mass balance approach](#) is used to create a recycled plastic, which for the first time has the same properties as new plastic made from fossil raw materials and is therefore suitable for technically demanding and safety-relevant Mercedes-Benz vehicle components. The approach is examined and independently certified according to ["REDCert<sup>2</sup>"](#) and ["ISCC PLUS"](#). Bow door handles were the first components to be fitted as standard in the S-Class and EQE in the reporting year. Upcoming models such as the EQE SUV will feature bow door handles made of this innovative plastic. In future, the use of the more sustainable recycled material is to be successively increased, and chemical recycling will also be used for other plastic components in the vehicle.

As far as new Mercedes-Benz passenger cars are concerned, the Group already defines a minimum proportion of [recycled content](#) for each component in its requirement specifications. This share varies depending on the vehicle's model and series.

To further promote the use of recycled materials, the Mercedes-Benz Group encourages dialogue between its experts and component and recycled material suppliers: before any contract is awarded, and during the joint design of components, suppliers of the Mercedes-Benz Group must present newly developed recycled materials and determine whether it is possible to switch components to the use of recycled content. Technical issues can be directly discussed.

### **Use of renewable raw materials**

The Mercedes-Benz Group can also reap many benefits from the use of renewable raw materials: By using them, it is possible to reduce the weight of components. Moreover, their CO<sub>2</sub> balance is almost neutral when their energy is recovered, because the CO<sub>2</sub> released is only as much as was absorbed by the plant during its growth. Last but not least, renewable raw materials help to reduce the consumption of fossil resources. The Mercedes-Benz Group uses a wide range of renewable raw materials such as hemp, kenaf, wool, paper and natural rubber.

The Mercedes-Benz S-Class shows how many components can be made partly from renewable materials: for the interior, a microsandwich material was developed that is reinforced with natural fibres in many components. It is used in the map pockets in the door trims, in the tensioning part of seat backrests and for the rear shelf. The material weighs 40% less than a comparable conventional component. The lower weight leads to a decreased need for primary energy along the vehicle's path from production to use and finally to the end-of-life phase. Moreover, this material, which is made of natural fibres, is very break-resistant and thus contributes to vehicle safety.

### **Sustainable materials**

The Mercedes-Benz Group attaches great importance to a more environmentally compatible processing of materials, such as leather. In the reporting year it tightened up its requirements for leather suppliers: starting in 2023, the Group hopes to shift gradually to using only sustainably produced and processed leather in all model series. The criteria range from animal husbandry to the tanning process. For example, Mercedes-Benz prescribes compliance with various animal welfare criteria. The Group requires its suppliers

to comply with the Animal Welfare Committee's "5 Freedoms Of Animal Welfare" for animal husbandry, for example. In addition, in a less environmentally damaging tanning process, only vegetable or other alternative tanning agents which are completely free of chromium may be used in the future – for example dried coffee bean husks, chestnuts or extracts from other renewable raw materials. Furthermore, the leather may only be processed in tanneries that are certified according to the Gold Standard of the "Leather Working Group". This includes important environmental aspects such as reducing the use of water, energy and chemicals in the tanning process.

In addition, the Mercedes-Benz Group works together with suppliers to continually improve the environmental compatibility of leather products. Partners must, for example, show a lifecycle assessment for the full value chain. In this way, targeted measures can be taken to reduce the ecological footprint of the leather.

The Mercedes-Benz Group emphatically opposes any form of illegal deforestation. It requires its suppliers not to contribute to or benefit from illegal deforestation in the course of their own business activities. Moreover, it contractually obligates its suppliers to take due diligence measures to support the protection of natural forests in the upstream supply chain.

At the same time, the Mercedes-Benz Group is researching animal-free, resource-conserving alternatives to genuine leather. In the development and selection of these materials, it pays attention to the highest possible recycled content or the use of renewable raw materials instead of crude oil-based raw materials. In the Mercedes-Benz "VISION EQXX" technology platform, various alternatives to real leather have already been presented – including a material made from powdered cactus fibres and a leather alternative made from mushroom mycelium, the underground root-like structure of fungi.

### **Battery development**

Batteries are a key component of electric mobility. At the Mercedes-Benz Group, experts from various disciplines are working on all aspects of battery technology – from basic research to production maturity. The Mercedes-Benz Group is pursuing two

goals in this respect: on the one hand, it wants to keep reducing the use of critical materials such as cobalt in its batteries. Secondly, it intends to source battery cells exclusively with raw materials from mines that are audited in accordance with the “Standard for Responsible Mining” of the [Initiative for Responsible Mining Assurance \(IRMA\)](#).

The Mercedes-Benz Group has been investing in resource-efficient technologies and manufacturing processes for batteries for many years and is continuously working on optimising the present lithium-ion battery. To drive the development of present and future battery technologies, it is working with partners to increase the energy density of lithium-ion batteries, for example. Anodes with a high silicon content, for instance, and solutions in combination with solid-state technology are being tested.

In the middle of the reporting year, Mercedes-Benz AG also entered into an important strategic partnership with the start-up Rock Tech Lithium Inc. in order to secure the lithium supply for the all-electric future. The aim is to secure the raw materials for battery production in the course of strategic direct procurement. The partnership enables Mercedes-Benz AG to supply its battery partners with high-quality lithium hydroxide to increase its production of all-electric vehicles. Under this agreement, Rock Tech has pledged to supply Mercedes-Benz AG and its battery partners with an average of 10,000 t of lithium hydroxide per year. The cooperation will start in 2026 with a qualification phase.

## **Lightweight construction**

Intelligent lightweight construction can reduce the weight of a vehicle. To guarantee the high safety and comfort standards at the same time, it is important to choose the right materials. Component design and manufacturing technology also play an important role here. The highest share of the total weight of a conventionally powered passenger car is accounted for by the bodyshell, at 35%. This is followed by the suspension at 25%, the comfort and safety features at 20% and the engine and transmission, likewise at 20%. Thus the most effective approach is to focus on the vehicle's bodyshell.

Aluminium is light, strong and has other positive properties. For the bodyshell, the Mercedes-Benz Group is increasingly using aluminium alloys for exposed automotive panelling (bonnet, wing, roof, boot lid) and reinforcement components (inner part of the bonnet, roof reinforcements).

## **Involve ment in raw material initiatives**

### **GRI 308-2**

Raw materials initiatives serve as important platforms to drive responsible, more environmentally and climate-friendly procurement of raw materials. At the Mercedes-Benz Group, the focus is on [aluminium](#) and steel.

**Aluminium Stewardship Initiative:** The Mercedes-Benz Group joined the Aluminium Stewardship Initiative (ASI) in 2018. In doing so, it is supporting the introduction and dissemination of an independent certification system for the entire aluminium value chain that combines ecological and social aspects. As a participant in the ASI's Standards Committee, in the reporting year, the Group contributed to the further development of the initiative's “Performance Standard” and “Chain of Custody Standard”.

These standards play an important role for the Group, both as awarding criteria in aluminium procurement and for the optimisation of its own production: suppliers to the Mercedes-Benz Group's European foundries and extrusion plants now only receive awardings on condition that the primary aluminium used has passed through ASI-certified production stages from the mine to the rolling mill. The “Performance Standard”, for example, is applied in the press plants of the Group's own production facilities: in 2022 all five European press plants, at which parts such as bonnets are stamped, were successfully certified according to the ASI “Performance Standard”. Among other things, the environmental design of their aluminium products and their efforts in scrap segregation were audited for this purpose.

**Responsible Steel Initiative:** The Mercedes-Benz Group has been a member of the Responsible Steel Initiative since 2018, because steel is the material that is proportionally most used in cars and represents the world's largest raw materials industry. The Responsible Steel Initiative has developed a uniform certification

scheme which includes requirements for the responsible use of resources and addresses the greenhouse gas emissions of the steel industry. The requirements for the certification scheme were drawn up with the involvement of various stakeholders, including the Mercedes-Benz Group. In this regard, the perspective of the end customers has been given special consideration. Since 2022, product-specific certification has been possible, as well as plant certification. For this purpose, corresponding requirements have been developed in the areas of "CO<sub>2</sub>" and "Responsible Sourcing".

↗ Steel

↗ Aluminium

## The circular economy

GRI 301-3

The overriding goal of the ↗ Circular economy is to preserve the value of products, components and materials for as long as possible. The Mercedes-Benz Group too is increasingly depending on measures that promote the circular economy. In doing so, it follows the ↗ Waste hierarchy: the top goal is to avoid waste. To achieve this, the Mercedes-Benz Group is working on extending the service life of all vehicle components – for example, by using particularly durable materials. It also uses resources efficiently and reduces the use of raw materials with limited availability. Only then does it move down the hierarchy of waste to measures for reusing various components and parts and for recovering materials by means of recycling.

### Reuse – new life for used parts

At the Mercedes-Benz Used Parts Centre (MB GTC), founded in 1996, more than 5000 vehicles are dismantled each year. The aim is to remove as many components as possible in order to sell them as used replacement parts.

Initially, in-house experts check all removed parts for their quality. The parts are offered for sale with the same warranty as new parts only if they meet the standards of MB GTC. According to the waste pyramid, reuse is the highest level of the circular economy, so that MB GTC makes a valuable contribution to sustainability and resource conservation.

Components that do not meet MB GTC's requirements go on to be further reprocessed. This recycling process

means that valuable raw materials can be recovered and kept in circulation – for example copper from vehicle wiring, gold from the circuit boards of control units or platinum from ↗ catalytic converters.

### Remanufacturing – value retention for prolonged life

In the remanufacturing process, the Mercedes-Benz Group reconditions used vehicle parts in order to reuse them. In this process, Mercedes-Benz genuine parts for passenger cars and vans are reconditioned so that they correspond to a new part in terms of function, safety and quality. The vehicle parts are only recycled when they can no longer be reused in a vehicle.

Remanufacturing enables avoiding waste, conserving raw materials and reducing energy consumption. A calculation certified by TÜV SÜD shows that the remanufacturing of a NAG2 transmission saves about 215 kg of CO<sub>2</sub> and 3074 MJ (854 kWh) of energy compared to a new unit.

### Re-utilisation of high-voltage batteries

Lithium-ion batteries contain valuable raw materials such as lithium or cobalt. For this reason, the Mercedes-Benz Group aims to reuse batteries in vehicles before recycling them, to conserve resources as much as possible.

To this end, the Group is successively expanding its portfolio of solutions for the recycling and reuse of defective batteries to include newer generations. The batteries are reconditioned according to the Group's high quality standards. Their function and quality are tested in detail – based on the specifications for series production. Batteries that are no longer suitable for reuse in vehicles – for example due to reduced capacity – can be reused in a stationary energy bank. In this way, the Group improves the environmental balance of electric vehicles – and at the same time contributes to a sustainable energy economy.

Mercedes-Benz Energy GmbH, based in Kamenz, Germany, is a subsidiary of Mercedes-Benz AG and is responsible for the development of innovative energy storage solutions like this. These use the automotive battery technology employed in the electric and hybrid vehicles from Mercedes-Benz and smart. By building stationary energy banks, Mercedes-Benz Energy GmbH,

in cooperation with partners from the energy industry, is bringing electric car batteries from the car to the grid, so to speak. The spectrum of large-scale energy bank applications by Mercedes-Benz Energy ranges from **⌚ peak demand** compensation and “black starting” – power plant ramp-up independent of the electricity grid – to an uninterruptible power supply. One of the key areas of focus is the procurement and operation of second-life batteries, battery modules and battery management components, along with specification services for energy storage units.

### Recycling – keeping the end in mind from the start

#### GRI 306-4

When developing products, the Mercedes-Benz Group keeps the circular economy in mind from the start and draws up a recycling concept for each new model series. For this, it analyses all components and materials and examines the extent to which they are suitable for the various stages of the recycling process. All Mercedes-Benz passenger car models and light commercial vehicles (**⌚ Vehicle classification N1**) have a materials recycling rate of 85% according to ISO 22628. In addition, they are in compliance with the European End-of-Life Vehicles Directive 2000/53/EC. This stipulates that cars and vans with a gross vehicle weight of up to 3.5 t must be 95% recoverable.

### Mercedes-Benz recycles drive batteries

Once it is no longer possible to recondition or reuse a battery, it is recycled in order to recover valuable raw materials. Today, the Mercedes-Benz Group is already in a position to go far beyond merely fulfilling the recycling quotas for drive batteries prescribed by battery legislation. The battery housings, the cables and the busbars can be recycled without any difficulty. Recycling the battery modules, which contain most of the valuable materials, is somewhat more complicated. The processes already exist, but they still need to be further developed so that the valuable raw materials can be recovered in as pure a state as possible.

The basic goal is to increase recycling rates even further. The vision: today's old batteries are the mines for tomorrow's batteries. To achieve this, the Mercedes-Benz Group is involved in researching and developing new recycling technologies and their establishment on the market. Together with specialised

partners, it works to further optimise the recycling process and participates in funding and research projects.

The volume of batteries to be recycled will gradually increase as the market penetration of electric cars continues. In view of the lifecycle of electric vehicles, the Group expects significant amount of recyclable material to become available in the 2030s. To create capacities for this, Mercedes-Benz AG is building its own CO<sub>2</sub>-neutral on the balance sheet pilot plant for the recycling of lithium-ion battery systems at its Kuppenheim location. This is an important part of the global Mercedes-Benz battery recycling strategy. For this purpose, the Group has founded **⌚ LICULAR GmbH** as a wholly-owned subsidiary. The Kuppenheim facility is being built in two stages: initially, the plan is for a facility for mechanical dismantling to be built by 2023. In a second step – subject to regulatory developments – special plants for the **⌚ hydrometallurgical** processing of the battery materials will go into operation. This process, for which promising approval discussions have already been held with the public sector, makes recovery rates of more than 96% possible. Following this example, Mercedes-Benz AG is planning to set up a closed-loop recycling system for batteries in China and the USA together with partners.

## Effectiveness and results

### Effectiveness of the management approach

#### GRI 3-3

In its management approach to resource conservation, the Mercedes-Benz Group aims to increasingly decouple resource consumption from sales growth. To this end, the Group has defined certain requirements in the vehicle requirement specifications and is introducing corresponding measures. The goals and specifications are monitored within the framework of the “Mercedes-Benz development system”.

### Results

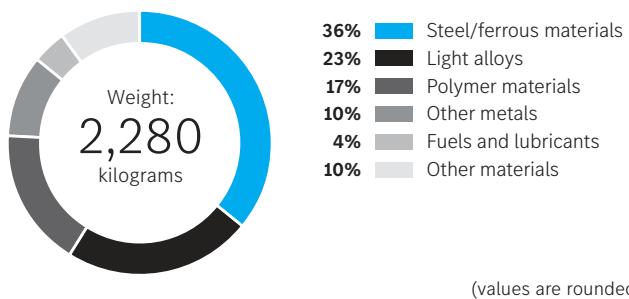
#### GRI 306-5

In order to assess the resource efficiency of its vehicles, the Mercedes-Benz Group considers, among other things, the medium and long-term availability of raw materials, social acceptance, and social and environmental impacts

and risks. In development, the Group also uses material balances to evaluate and compare different vehicles, components and technologies.

### Material composition EQE 350+<sup>1,2</sup>

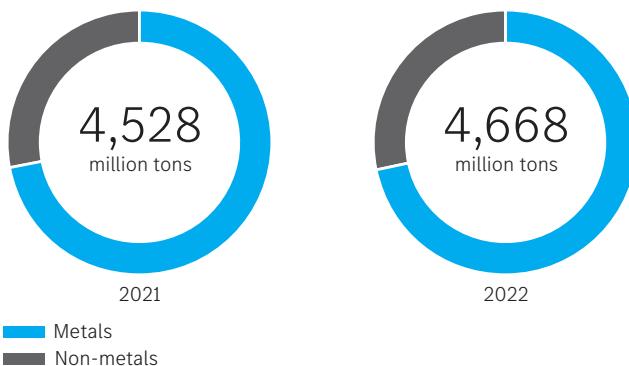
GRI 301-1



1 EQE 350+ (WLTP: combined electrical consumption: 18.7 – 15.9 kWh/100 km; combined CO<sub>2</sub> emissions: 0 g/km)  
2 Renewably generated energy for cell production and charging current

### Material balance – use of metals and non-metals

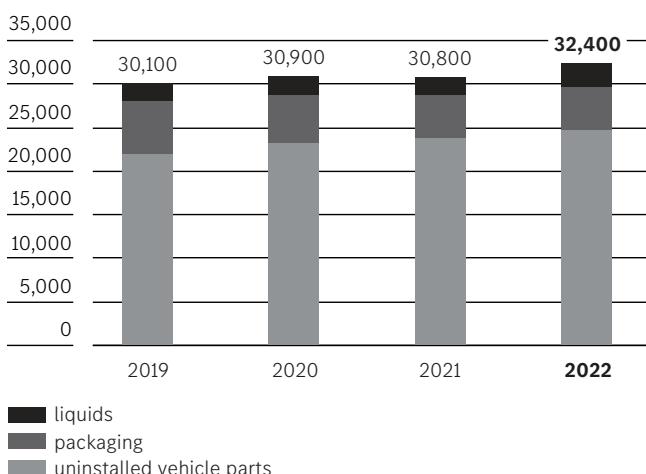
GRI 301-1



As part of the “MeRSy” workshop disposal system, workshop waste – dismantled vehicle parts, fluids and replacement parts packaging – generated during vehicle servicing or repair is collected and recycled. In the reporting year, a total of 24,600 t of dismantled vehicle parts, 2,800 t of fluids and 5,000 t of packaging were collected in Germany and sent for recycling.

### Workshop disposal with MeRSy

in t



# Resource conservation in production

## Strategy and concepts

### More resource-efficient production

GRI 3-3

The use of resources in the vehicle as well as the consumption of resources in production play an important role in the environmental compatibility of a vehicle. For this reason, the Mercedes-Benz Group is continuously working on making production more efficient and environmentally compatible. In order to improve its environmental footprint in production operations, the Group therefore plans to use less energy and water and fewer raw materials.

One important lever for reaching this goal is to increase energy efficiency. In this way, the company reduces energy consumption, conserves resources and at the same time reduces CO<sub>2</sub> emissions in production. The Mercedes-Benz Group also wants to reduce water consumption – for example by closing water loops. Conserving resources also means reducing waste volumes. To achieve this, the Group is stepping up its efforts to reduce the consumption of raw materials and other materials at its locations.

For its production sites worldwide, the Mercedes-Benz Group has set reduction targets for energy and water consumption, total waste volume and the volume of waste for disposal per vehicle. In order to achieve its goals, the Group uses Group-wide resource management with its environmental and energy management systems to ensure that appropriate measures are developed, adapted to challenges where necessary, and monitored.

### Group-wide resource management

GRI 2-12 / -23 / -24 GRI 3-3 GRI 303-1

Reducing the ecological footprint of production processes is an integral part of the Mercedes-Benz Group's sustainable business strategy. In order to ensure efficient, high-quality, and environmentally

friendly manufacturing operations, the Group has established environmental management systems in accordance with EMAS or ISO 14001 at its production sites around the world. Since 2012, it has also introduced energy management systems certified in accordance with the DIN EN ISO 50001 standard at its German production sites. These energy management systems are certified at regular intervals. The Mercedes-Benz Group is currently also implementing ISO 50001 systems at a number of individual sites outside Germany. In accordance with the standard, it has embedded environmental and energy management within its organization. The individual divisions and production locations are similarly responsible for the conservative use of resources. They set overarching and location-specific targets and report on these topics to the respective management. This approach is derived from the target system adopted by the Board of Management as part of the sustainable business strategy.

With its environmental and energy management systems, the Mercedes-Benz Group ensures, among other things, clear responsibilities, transparent, standardised implementation of internal and external environmental protection and energy efficiency requirements, and comprehensive reporting at its production locations worldwide. As part of the local environmental management systems and the overarching Group-wide risk assessments, the Mercedes-Benz Group monitors the legal conformity of operations in the areas of waste management, airborne emissions, waste water discharge and soil/groundwater contamination in connection with the handling of environmentally hazardous substances is monitored. If any relevant shortcomings are identified, the Mercedes-Benz Group records and rectifies them.

To protect people and the environment, the safe and legally compliant use of hazardous substances must be ensured. To this end, the Mercedes-Benz Group has developed and implemented a comprehensive

IT-supported hazardous substance management system at its German locations and individual locations outside Germany. This includes a number of internal specifications and processes, among others, for the approval of hazardous substances or the testing of substitutes with lower risks. Compliance with the requirements is monitored by suitable control mechanisms. In addition, important key figures on hazardous substance management are presented transparently at the plant, department or cost centre level. In this way, unit-specific targets can be systematically defined and pursued. In addition, the Mercedes-Benz Group has been working since as far back as 2017 with the globally applicable standard "Handling of Hazardous Substances" and has implemented this as an accompanying regulation within the Group's "Environmental and energy policy" as a way of documenting requirements in relation to the legally compliant use of hazardous materials and corresponding regulations on the verification of substitutions and thus use of less critical hazardous materials.

The effectiveness of the management systems is monitored by external auditors as part of the certification process (ISO 14001, EMAS, ISO 50001), as well as in the environmental sector by internal environmental risk assessments (environmental due diligence process).

As long ago as in 1999, the Group developed an environmental due diligence method in order to make potential environmental risks at the production locations transparent as well as evaluate and to prevent

them accordingly. Since then, the Mercedes-Benz Group has applied these throughout the Group – both internally at all production locations in which the Mercedes-Benz Group holds a majority stake and externally in [merger and acquisition projects](#). The company also has a standardized process in place for reviewing and assessing its consolidated production sites every five years. The results of this process are reported to the respective plant and company management so that any necessary optimizations can be carried out. In addition, the Group undertakes an annual review of the extent to which the recommendations for risk minimisation have been implemented at the locations. The aim of the environmental risk assessment is to maintain a high environmental standard at all production sites worldwide.

Four risk assessment cycles were completed at Mercedes-Benz Cars and Mercedes-Benz Vans production locations between 2000 and 2019. The fifth round of these environmental risk assessments started in 2019 and will run until 2026.

Travel restrictions and lockdown regulations due to the Covid-19 pandemic limited the number of site inspections that could be carried out in 2021. Van production sites were evaluated during the year under review. The inspections that had to be cancelled will now be carried out over the next few years so that the Mercedes-Benz Group can maintain the five-year cycle for its production sites. The Mercedes-Benz Group is continuing the internal reporting process and the controlling of the improvement measures as before.

## Environmental risk assessment



# Measures

## Training sessions on environmental protection

The Mercedes-Benz Group conducts environmental protection courses at its locations. The important content includes waste and hazardous materials management, water pollution control, wastewater treatment, emergency management in case of environmentally relevant malfunctions and the planning of plants and workplaces in accordance with environmental protection principles.

The content and frequency of the various environmental training courses, completion of which is in some cases mandatory, depend on personal responsibilities and functions in the Group, the local conditions and the current legal requirements.

## Reduction of energy consumption

GRI 302-1/4/-5

The Group raises awareness of the topic of energy-saving among the workforces at the plants – among other things with generally visible tips, training courses and other initiatives. Within a project, for example, multipliers are nominated in all teams, across the board, and given special training. The aim is to enhance awareness within the teams and to contribute actively to the shaping of sustainability issues.

When procuring new production facilities and converting buildings, the Mercedes-Benz Group pays attention to high energy efficiency. The focus here is on the control systems for all technical installations and components, as well as a transparent system for measuring consumption. It is important, for example, that the production facilities can be switched off during breaks and non-production time, and can also be operated efficiently under **partial load**.

The Mercedes-Benz Group regularly measures and assesses essential energy consumption in order to identify and take advantage of savings potential in the areas of production and infrastructure.

Innovative energy management software is now being used on a worldwide basis as a means of gaining transparency over energy sourcing and to record and analyse energy consumption. This is used to record and analyse the consumption for production plants and buildings,

as well as for individual systems. In the event of any divergences, corresponding countermeasures will then be automatically introduced.

In order to save energy, the Group is investing in the efficient control of all energy supply and building services systems, for example through needs-oriented control of local lighting, the regulation of **air flow volume** in air intake and extraction systems as well as load-dependent volume control of the air supply in the case of paint drying systems.

In addition, the Group makes use of intelligent robot control systems, highly efficient **turbocompressors** for the central generation of compressed air, updated ventilation systems featuring highly efficient heat recovery technology and a systematic reduction in the **base load** of the administration and production areas, as well as systematically updated lighting technology at all locations.

In the reporting year, Mercedes-Benz AG used highly efficient robots to assemble the new S-Class and the EQS. This enabled energy consumption to be significantly reduced compared to the previous years.

In addition, in 2021 the Mercedes-Benz Group has increased the energy efficiency at the US plant in Tuscaloosa – among other things by optimising existing ventilation systems, converting to LED lighting and using a highly efficient chiller to supply the new battery plant, which started operations in March 2022.

At all Mercedes-Benz Vans production locations, the Mercedes-Benz Group is continually optimising the energy efficiency of technical systems and building facilities: in 2022, for example, a heat pump was installed in the paint pre-treatment area at the Düsseldorf plant, the waste heat from which is fed into the hot water system. In the Ludwigsfelde and Vitoria (Spain) plants, the Group converted the lighting to LED technology.

## Mercedes-Benz Group in China

### Beijing Benz Automotive Co. Ltd. (BBAC)

#### Ownership

51% BAIC  
38.66% Mercedes-Benz Group AG  
10.34% Daimler Greater China Ltd (DGRC)

#### Location

Beijing

#### Production volume in 2021

601,000 units

#### Production

E-Klasse L/C-Klasse L/A-Klasse L/AMG A35L/  
GLC/GLB/GLA/EQE/EQE SUV/EQC/EQB/EQA

#### Energy consumption

1,182.9 GWh  
- thereof electricity: 612.0 GWh  
- thereof natural gas: 570.9 GWh

### Fujian Benz Automotive Co. Ltd. (FBAC)

#### Ownership

50% Mercedes-Benz Vans Hong Kong Limited  
35% BAIC Motor Corporation Ltd.  
15% Fujian Motor Industry Group Corporation

#### Location

Fuzhou

#### Production volume in 2021

33,316 units

#### Production

V-Klasse, Vito

#### Energy consumption

101.4 GWh  
- thereof electricity: 47.5 GWh  
- thereof natural gas: 53.9 GWh

## Efficient water utilisation

### GRI 303-1/-2/-3/-4/-5

Risks for the water supply as a consequence of climate change – for example through a reduction in precipitation – affect people and the environment generally, as well as the various locations of the Mercedes-Benz Group. It therefore also wants to play its part in ensuring the more sustainable management of water resources. In order to achieve this, the Mercedes-Benz Group adopted a [Water policy](#) in July 2022. It is based on the following strategic pillars “Fresh water protection including reduction of consumption”, “Efficient use and treatment of waste water” as well as “Avoidance of soil and groundwater degradation and flood protection”.

### Managing sustainability

The Mercedes-Benz Group wants to close water cycles – for instance by treating used process water and using closed-loop cooling systems instead of open ones. In its rain test, in which new vehicles are tested for water resistance, the Mercedes-Benz Group has implemented water-saving measures: for example, at some locations it utilises a biological water treatment process which uses no biocides. As a result, the wastewater contains

fewer pollutants and the volume of water can be retained and reused within the cycle about three times as frequently. Waste water from production and sanitary facilities is either transferred to local waste water treatment facilities in accordance with local regulations, or is pre-treated or purified on the Group's own premises. At certain locations the Mercedes-Benz Group, in some cases in collaboration with municipal waste water disposal authorities, is using purified waste water from biological treatment plants: in Sindelfingen, for example, a third of all fresh water is set to be replaced from May 2023 by treated waste water from the nearby sewage treatment plant. This project serves as a pilot for further recycling projects in other plants.

The Mercedes-Benz Group wants to reduce its water consumption. In its new paint shops, for example, it uses dry instead of [wet separation technologies](#). Furthermore, at the Bremen and Untertürkheim plants, the Group has installed additional filter stages in the osmosis systems. These systems produce (fully) desalinated process water from certain raw waters. The additional filter stages will save about 100,000 cubic metres of raw water per year.

In order to improve water quality and minimise the risk of water pollution, the Mercedes-Benz Group's commitment to waste water discharge includes, for example, regular waste water inspections and their documentation. To initiate targeted measures at the locations, the Group developed the "Storm Water Protection – Pollutant Discharge Elimination" standard in 2014. This standard provides fundamental information and guidelines for the prevention and reduction of potential environmental damage through the rainwater management systems at production facilities, Group-owned sales and service outlets, and workshops. Since then, it has provided a basis for the targeted improvement of water quality.

### Assessing water-related risks

At Mercedes-Benz locations, the Mercedes-Benz Group also assesses water risks every five years as part of its environmental risk assessments. The focus is on water extraction, waste water treatment, discharge, contamination, flooding, scarcity and retention in an emergency. If necessary, remedial measures are initiated and their implementation is monitored. This ensures that technical and organisational risks are reduced in a demonstrable manner. Based on the assessments of the past five years, only a few locations were identified as suffering from water-related risks.

In addition, since 2021 Mercedes-Benz AG uses the so-called "Water Risk Filter" of the World Wide Fund For Nature (WWF) as a means of identifying locations that are subject to water-related risks. Analyses according to the criteria of the WWF Water Risk Filter were conducted at all production locations during the reporting year. Corresponding data relating to water extraction and water consumption are available for all production locations (including for areas with a higher risk of water stress). Data on water recirculation are available for individual production locations with a higher risk of water stress.

### Less waste

#### GRI 306-1/-2

The Mercedes-Benz Group has the goal of keeping the amount of waste generated in production as low as possible. To this end, it wants to reduce total waste, including the waste for disposal.

In accordance with the waste hierarchy, the Mercedes-Benz Group's primary goal is to avoid waste. The following then apply, in decreasing order of priority: reuse, recycling and reprocessing. The Mercedes-Benz Group disposes of the waste only if none of these four measures can be applied. Accordingly, about 1% of the waste from Mercedes-Benz Cars had to be disposed of in the reporting year.

In order to reduce total waste, it is important to create transparency about the waste value streams and to correctly separate the different types of waste. In Europe, for example, the Mercedes-Benz Group records waste according to waste code numbers and treats and disposes of it in accordance with the legal regulations. For the professional disposal of waste, the Group always works with licensed and regularly certified waste disposal companies. It also continues to reduce waste such as offcuts, sand, filter materials and sludges through new or optimised production processes.

Among other things, in a pilot trial at the Sindelfingen and Sebes (Romania) plants, only cardboard without plastic coating is in use since the beginning of 2022. As a result, around 1000 t of cardboard can be recycled per year – previously, only thermal reprocessing was possible. At the Sindelfingen plant, the Group has succeeded in transferring steel scrap from the press shop into a closed cycle since the beginning of 2022: each year, about 24,000 t of steel scrap will be returned to the supplier. New steel sheets are made from this and cycled back into production in Sindelfingen. The Mercedes-Benz Group also works with its suppliers to avoid waste: load carriers and materials for load securing have been transferred into a cycle and can be reused from now on.

### Waste and CO<sub>2</sub> emissions in the catering sector

Mercedes-Benz Gastronomie GmbH supplies the company's workforce with food and beverages on a daily basis in canteens and shops throughout Germany. The production, distribution and disposal of these foods have a negative impact on the environment. The aim of Mercedes-Benz Gastronomie GmbH is to reduce the CO<sub>2</sub> balance and the amount of food waste, as well as to offer more environmentally friendly packaging.

To achieve this, non-avoidable disposable packaging consists of renewable raw materials that are biodegradable or recyclable. However, the Group is focusing on more sustainable reusable alternatives: for example, the already established reusable system for take-away food saved nearly 40,000 packages having to be disposed of in the reporting year.

Mercedes-Benz Gastronomie GmbH is also expanding its range of vegan products. Furthermore, the Group sources regional and seasonal food. In 2022, 54% of these were sourced from regional suppliers. The associated shorter transport routes have a positive effect on the CO<sub>2</sub> balance of the food. Since March 2022, this balance has been shown for the individual dishes throughout Germany in order to sensitise the employees of the Mercedes-Benz Group to a conscious and more climate-friendly diet. The target of reducing the Co2 emissions of purchased and produced food by up to 15% in 2022 was achieved. This measure, in conjunction with the introduction of a gastronomic traffic light system and the calculation of a health index for the dishes, has had a positive effect on employees' eating habits. For example, the health value of all food consumed increased by 6% in the year under review.

The health index is an internal indicator for the nutritional behaviour and health orientation of employees. To determine it, all recipes are evaluated according to the quality of the ingredients, as well as the preparation method, fat content and quality, sugar content and keep-warm times, among other factors. The Mercedes-Benz Group makes it easier for its employees to choose healthier and thus frequently also more sustainable alternatives, as indicated by the traffic light colours green, yellow and red on the menu.

In addition, Mercedes-Benz Gastronomie GmbH tries not to waste any food and to avoid food waste along the entire value chain from purchasing to food production. For this purpose, the Group continuously weighs its food waste, compares it between locations and derives appropriate measures. In this way, it can avoid over-production, reduce the amount of food replenishment required at the end of serving times and work towards resource-saving ordering behaviour. The measures are also enshrined in the local environmental protection and energy targets of the Mercedes-Benz Group.

## Biological diversity

**GRI 3-3 GRI 304-1/-2/-3/-4**

The decline of biodiversity is a global problem that is steadily growing. The Mercedes-Benz Group also bears responsibility in this regard since the use of land and resources, the emission of pollutants and production-related interference with the environment can have a negative impact on biodiversity. The Group is aware of this. For this reason, the goal of the Mercedes-Benz Group is therefore to act in an environmentally aware manner at all locations, and to continually improve its operational environmental performance. This also includes promoting and preserving biodiversity at the production locations. When creating the location profile as part of the Due Diligence process for evaluating environmental protection in the plants, factors considered include the surface sealing level of the site, the hydrogeological situation, the classification of the location and its neighbourhood by the local authorities and the existence of ecologically sensitive areas or protected zones in the vicinity of the site. These are then taken into consideration during the further analysis of risks at the site. In its location planning, the Group takes into account criteria like the land use for construction projects, among others. In principle, this should be kept as low as possible – for example through multi-storey, dense building construction.

Some of the German plants of the Mercedes-Benz Group evaluate their sites using the Biodiversity Index (BIX), which was developed in-house. The BIX index ranges from Level 0 (area of no ecological importance) to Level V (very high ecological importance) and can assess sites in terms of their potential for enhancing biodiversity.

Furthermore, internal recommendations for action on "Biodiversity" have been developed for the German locations of the Mercedes-Benz Group. These provide practical advice on designing plant areas that are as far as possible in harmony with nature. The Group has also developed recommendations for its locations on how to cultivate living roofs and facades.

The Mercedes-Benz Group wide measures for the awareness and promotion of biodiversity are coordinated by the Environmental and Energy Management unit. The Chief Environmental/Energy

Officer of the Mercedes-Benz Group also represents environmental and energy issues on the Group Sustainability Board, the central governance body for sustainability issues. At the executive level (plant management), biodiversity aspects are also part of the environmental management assessment process at the individual locations.

At its plants, the Mercedes-Benz Group has already established numerous measures designed to maintain the ecological balance. These will continue to be extended in the future. For example, nesting boxes for native birds and insects have been built, the latter by local workshops employing people with disabilities. In addition, wild bee hotels, living roofs, dry brooks, stone areas as habitats for cold-blooded animals, rock gardens and flower meadows have been created. If it is not possible to establish supportive or compensatory measures directly at the Group's locations, the Mercedes-Benz Group will create substitute habitats. The German environmental organisation NABU has provided advice, support and documentation for the Group's programmes benefiting the flora and fauna at these sites. The measures were decided individually at the level of the plant locations and their management, and implemented in cooperation with the environmental protection and technical services departments along with the plant planning departments.

## Effectiveness and results

### Effectiveness of the management approach

#### GRI 3-3

For its production sites worldwide, the Mercedes-Benz Group has set reduction targets for factors such as **total waste volume** and **waste volume for disposal per vehicle**. As the central governance body for sustainability issues, the Group Sustainability Board is the highest management body. The objectives and current status of the implementation process are discussed here on an annual basis and, should this be necessary, measures initiated to ensure that objectives are met.

For the monitoring of these reduction targets and reporting, the Group systematically collects the most important environmental and energy data from the

German and foreign plants. This data is entered into a central environmental data information system by the worldwide production locations and subsequently evaluated.

Based on this data and with the help of internal and external tools, the Mercedes-Benz Group reviews the extent to which the resource targets for the plants are being achieved. For the internal review it has defined key figures, which are regularly tracked. The Mercedes-Benz Group has entrusted an auditing firm with the external review. This evaluates a selection of the Mercedes-Benz Group's goals and their implementation on an annual basis. The Mercedes-Benz Group uses the audited results to adapt and further develop its resource conservation measures.

## Results

#### GRI 302-3/-4/-5 GRI 303-3/-4/-5

The resource conservation projects were implemented as planned. Due to the implementation of further energy efficiency measures, the energy consumption per vehicle at Mercedes-Benz Cars could be reduced by 18% compared with 2021.

Around 4% of the energy consumption per vehicle produced is accounted for by generating losses from electricity and heat production in Mercedes-Benz Cars' highly efficient combined heat and power plants.

The production sites of the powertrain plants produce products and parts sets for vehicles whose production volumes are not consolidated in the Group's balance sheet. Around 32% of the energy consumption of the powertrain plants is accounted for by these production scopes.

At Mercedes-Benz Vans, energy consumption per vehicle is 15% lower than in the previous year owing to similar effects.

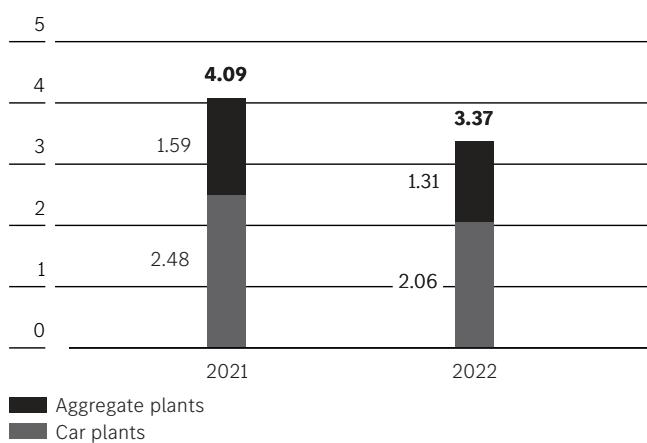
Mercedes-Benz Cars and Mercedes-Benz Vans consumed 5,140 GWh of electricity, natural gas, fuels and other energy sources in 2022, and thus 11% less than in the previous year.

In 2022, of the energy sources supplied from outside the Group (electricity, natural gas and hot water) the

Mercedes-Benz Group passed a total of 451,581 GWh on to third parties. This figure has already been subtracted from the total energy consumption of the Mercedes-Benz Group as reported.

### **Energy consumption per vehicle broken down by car and powertrain plants**

in MWh/vehicle



In the Mercedes-Benz Cars segment, the water consumption per vehicle fell by 10% in the reporting year compared to 2021. Mercedes-Benz Vans, on the other hand, was able to reduce the water consumption per vehicle by 14% compared to the previous year.

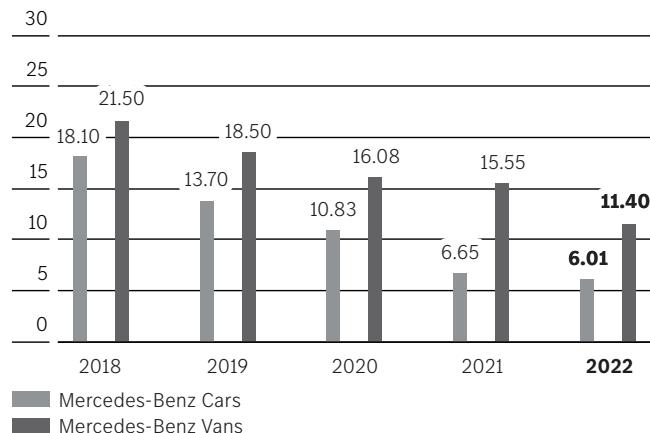
At Mercedes-Benz Group, only renewable fresh water ( $\leq 1000 \text{ mg/l}$  total dissolved solids – TDS) is used. Sea water/brackish water ( $> 1000 \text{ mg/l}$  TDS) are not used. In addition, the sector-specific water types “produced water”, “enclosed water” and “cooled water” do not play any role in this form at the production locations. Nor is any waste water or process water retained. In order to reduce the need for water and thus the extraction of water, this is kept within the loop and is thus recycled and reused.

Of the total volume of water sourced externally and specially supplied from wells, the Mercedes-Benz Group in 2022 passed 136,792 m<sup>3</sup> on to third parties. This quantity has already been subtracted from the total reported water consumption of the Group. In 2022, a total of 5162 m<sup>3</sup> was passed on by the Mercedes-Benz Group AG to third parties via an indirect feed in the form of waste water. Currently only the water that is passed on to third parties falls into the category of water recirculation.

In the reporting year, Mercedes-Benz Cars reduced the total waste per vehicle by 15% and the amount of waste for disposal per vehicle by 10% compared to 2021. At Mercedes-Benz Vans, the total waste per vehicle increased by 4% in the reporting year compared to the previous year, but the amount of waste for disposal per vehicle fell by 27%.

### **Development of waste for disposal Mercedes-Benz Cars and Mercedes-Benz Vans**

in kg/vehicle



# Key figures

## Energy consumption (in GWh)

GRI 302-1

	2021 <sup>1</sup>	2022 <sup>2</sup>
<b>Total</b>	<b>6,786</b>	<b>6,087</b>

- 1 These data have been adjusted due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, nonetheless, they still contain minor uncertainties as adjustments for combined locations and units can first be made in financial year 2022.  
 2 The key figure was audited in order to obtain limited assurance.

## Water withdrawal (in 1,000 m<sup>3</sup>)

GRI 303-3

	2021 <sup>1</sup>	2022 <sup>2</sup>
<b>Total</b>	<b>7,454</b>	<b>7,295</b>

- 1 These data have been adjusted due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, nonetheless, they still contain minor uncertainties as adjustments for combined locations and units can first be made in financial year 2022.  
 2 The key figure was audited in order to obtain limited assurance.

## Waste by category (in 1,000 t)

GRI 306-3/-4/-5

	2021 <sup>1</sup>	2022 <sup>2</sup>
Non-hazardous waste for disposal	7	5
Non-hazardous waste for recycling	151	135
Scrap metal for recycling	433	427
Hazardous waste for disposal	8	8
Hazardous waste for recycling	51	47
<b>Total</b>	<b>651</b>	<b>622</b>

- 1 These data have been adjusted due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, nonetheless, they still contain minor uncertainties as adjustments for combined locations and units can first be made in financial year 2022.  
 2 The key figures were audited in order to obtain limited assurance.

SOCIAL

# “Fairer distribution of opportunities and risks”

Mercedes-Benz is committed to respecting and safeguarding human rights – in its own Group companies and among suppliers throughout the value creation chain. How far can this commitment reach in the light of complex automotive value creation chains? And how can social improvements arise from this commitment? A conversation with Marc-André Bürgel, Head of Social Compliance Program, and Elisabeth Viebig, Head of Team Corporate Citizenship & Memberships.



**Elisabeth Viebig**  
Mercedes-Benz Group AG



**Marc-André Bürgel**  
Mercedes-Benz Group AG

**Mr Bürgel, from the vantage point of your position, let's look at the start of the supply chain, where there is often a high risk that human and employee rights might be abused. To what extent can and must Mercedes-Benz ensure that this doesn't happen?**

MARC-ANDRÉ BÜRGEL: It's a fact that risks to human rights are often the most severe where we have the least influence, namely in the mines and mining areas at the start of the supply chain. This is where we're unable to impose our standards directly, as we normally don't procure raw materials ourselves. Nonetheless, we make intensive efforts to exert a positive influence at this level too. For example, by requiring our direct suppliers to take account of our „Responsible Sourcing Standards“ and to impose

our requirements for the protection of human rights on their own suppliers. Moreover, our procurement departments make compliance with ambitious mining standards a precondition for contract placement. In addition, we gain our own impression of the situation in mining areas on a risk assessment basis. In 2022, colleagues visited the Democratic Republic of Congo to inspect cobalt mines. At the same time, we can also exert a certain influence from Germany, by developing and implementing corresponding processes and measures aimed at safeguarding human rights. We started doing this at an early stage, and of our own volition. It also needs to be said that no company has yet „finished off“ its duty of care processes with respect to human rights. We too are continuously looking to improve our activities in this respect. Looking at the supply chain in its entirety, there will always be

residual risks despite the greatest efforts and systematic supply chain management. We will achieve most if we try to improve the situation of the people affected together with our suppliers and partners.

**Ms Viebig, what's your perspective on this? What responsibilities does Mercedes-Benz have when it comes to protecting human rights, but also to furthering the global development goal of equal opportunities with regard to prosperity, education and participation?**

ELISABETH VIEBIG: My answer to this question is intentionally in terms of our social responsibility and not from a corporate point of view, because there too, we as an employer and responsible business partner also subscribe to social sustainability goals. At Corporate Citizenship, we work on a topic-specific basis alongside our core business to reinforce the sustainability measures of our company while proactively seeking to create added value for society. In addition to sustainable environmental protection and disaster relief and prevention, the aim of our commitment is to strengthen social cohesion. This includes activities in the areas of human rights, educational opportunity, social participation and diversity. Our aim is to make a valid contribution in all these areas through our voluntary commitment.



Copper was identified as a potentially critical raw material in the course of the raw material assessment Mercedes-Benz carried out.

**How do you try to meet this commitment?**

ELISABETH VIEBIG: Our work is very diverse. For example, we support a new incentive programme

named „beVisioneers: The Mercedes-Benz Fellowship“ with donations. This is a global initiative by the non-profit „The Do School Fellowships gGmbH“. The aim is to encourage and empower young people to drive forward specific projects in the area of ecological sustainability. The funds for this programme come from the auctioning of the Mercedes-Benz 300 SLR Uhlenhaut Coupé, a collector's item from the Mercedes-Benz Classic Collection. Another long-term commitment is our cooperation with local aid organisations, for example Bon Pasteur or Terre des Hommes. Together with these NGOs, we carry out projects to address systemic human rights violations at the start of the supply chain. To put it simply, it's not enough to combat child labour – we need to address the causes, which are poverty and social disintegration. And we need to create alternative means of subsistence. In the Congo, for example, many years of war have led to a lack of agricultural know-how. This knowledge has to be recreated. Moreover, many mine workers don't know that as well as obligations they also have rights, for example the right to education.

MARC-ANDRÉ BÜRGEL: It's important to understand that social and environmental risks can vary greatly depending on the raw material and country of origin. Cobalt mining in the Congo carries different human rights risks from lithium mining in the Atacama desert, and the supply chains are different too. Transparency is the first important step in this respect, but is not an end in itself. We need it to identify the major risks along our value creation chain and reduce them by means of suitable measures. In our raw materials assessment, we've identified 24 potentially critical raw materials for which we develop and implement material-specific measures. We report on this in our [Raw Materials Report](#), which we published for the first time in 2022. Incidentally, transparency also means saying so quite frankly if we have not yet progressed as far as we want to in the medium to long term. We hope that especially where the systemic challenges in some regions are concerned, we'll achieve more with industry-wide solutions in the future.

**Human rights experts complain that too little attention is given to those actually affected. What's your opinion? What is Mercedes-Benz doing to encourage a dialogue?**

MARC-ANDRÉ BÜRGEL: In my view it's fundamentally important not just to talk about those affected, but to talk to them. We can certainly improve in this respect, but we're doing a great deal. For example, last year we conducted the 15th [Sustainability Dialogue](#), where we discussed how we can develop our human rights protection measures further in a separate working group with external human rights experts and non-governmental organisations. One of the key topics was how to involve those affected more strongly in the dialogue. We've created a new core group of external stakeholders with whom we continue a dialogue. We also seek to make contact with the people affected in our supply chains. For example, together with the Initiative for Responsible Mining Assurance (IRMA), we have promoted an approach to create better participation opportunities in audit processes for the local population in mining areas.



Impressions from the cooperation with the aid organization Terres des Hommes.

**A final question for both of you. Mercedes-Benz aims to be fully electric by 2030 – wherever market conditions allow. This is an important step towards balance sheet carbon-neutrality. What might be a similarly ambitious social sustainability goal?**

ELISABETH VIEBIG: I think it would be ambitious for us link the resources available to us for our Corporate Citizenship commitment to key financial figures, so that a certain percentage of our corporate profit goes to social projects, for example. However, I think

this would need to go hand in hand with systematic measurement of effectiveness, and reporting of our voluntary activities, so it shows the impact of our work on social sustainability.

MARC-ANDRÉ BÜRGEL: I agree that this is an important aspect. We need to show as clearly as possible what effect our activities for the furtherance of human and employees rights are having. My goal would also be for us to make our „social footprint“ more transparent. In the long term I'd like to see all those involved in the creation of a vehicle – from the mine to the finished Mercedes – receiving a fair share of the value created. Every individual should be proud of being involved in the creation of these high-quality vehicles, and be able to live well on the work contributed.

**Marc-André Bürgel**

is head of the department for Social Compliance formed in 2019 and has been deputy human rights officer of Mercedes-Benz Group since 1 January 2023. He has concerned himself with the subject of human rights for many years. As a young adult in a township in South Africa, he became very aware of the importance of social justice. Today, he and his team at Mercedes-Benz work on translating the UN Guiding Principles on Business and Human Rights into Group-specific strategies and processes, and applying these worldwide.

**Elisabeth Viebig**

is Head of the team Corporate Citizenship & Memberships at Mercedes-Benz Group. The name of this unit reflects the variety she so enjoys as an educational scientist. Long-term support programmes are developed together with project partners and given measurable goals. As not every approach immediately leads to goal achievement, regular dialogue is essential.

# “It’s important to look at the structures that business action creates”

How can the situation of workers and their families in industrial supply chains be improved? Ines Kaempfer, CEO of The Centre for Child Rights and Business, says, through transparency, long-term commitment and addressing the structural causes of inequality. In this interview, the child rights expert reports on conversations with miners and shows what companies can do to give workers and their families at the beginning of the supply chain a perspective for the future.



**Ines Kaempfer**  
Centre for Child Rights and Business

**Ten years ago, the Children's Rights and Business Principles were launched. How has the approach to human rights issues in supply chains changed since then?**

What we have seen over the last ten years, is that many companies are moving away from what we call a 'checklist approach'. They are looking at human rights in a more comprehensive manner, and this includes child rights issues. Additionally, frameworks like the OECD Due Diligence Guidance have helped companies to be more strategic in how they deal with human rights issues in their supply chain. That's a very positive development.

However, we do see the danger that reporting, also due to growing requirements, becomes more important

than the actual impact of the human rights activities undertaken. In the meantime, the COVID pandemic has shown that some of the basic inequalities driven by our often unfair economic system have not been solved. And as such, many of the key issues are remaining.

**Can you give an example?**

Generally the materials and services – in particular labour – which are sourced in a developing country, are not expensive and only make a fraction of the production costs. The sales profits however largely stay in the developed countries, while workers further down the supply chain still make very little money. That in turn impacts whether they can afford to send their

children to school or afford nutritious food, among others. Child labour is very often just a consequence of poverty. And that poverty is driven by structural elements of inequality - people who are working at the sources of our raw materials or within factories do not have social security or medical insurance. The moment, one parent gets ill, creates a risk for the children to drop out of school and start working to replace their parents. Unfortunately, COVID has just made this more obvious for many people and the gap between those who have money and access to resources and those who have not, widened in many countries.



Terre des Hommes supports partner projects for children in need in 39 countries

### Where can businesses step in to support structures that are not there, yet?

Of course building up social structures is mainly a political task. But there are reasons why workers in some countries earn less than in others. And part of it is that the government is not willing or able to provide the right structures, which in turn keeps prices of services and materials low. As a consequence, I see a corporate responsibility, not because companies are always the root cause for those gaps, but because they benefit from them.

Given that, business has a responsibility to - at a minimum - mitigate the situation. They are not the ones to set up social insurance systems but they still create significant impact - for example for young people. Companies can invest in decent work for youth by co-operating with strong local employers to create more work opportunities, give adequate training and ensure social protection and living wages. Providing good

vocational training opportunities, as Mercedes-Benz is doing in Germany or China, is a very practical example, how companies can become the mitigating factor. And it's by far not the only one.

### For a study, you published together with the non-governmental organisation (NGO) “Save the Children”, you examined cobalt mining in the Democratic Republic of the Congo (DRC). Among others, you talked to children and young people from families working in the mines. What did you learn in the process?

We learned a lot about living and working conditions and how families had to deal with poverty. This mainly affects the people who work in small, informal mines, outside the automotive supply chains. We were impressed that, despite living in often extremely desperate situations, most parents and children had a lot of faith in education. It went against the widespread assumption that child labour is considered normal in the region and that's why families don't send their kids to school. Instead, we often found that the normalisation of child labour comes out of necessity. You normalise it because it's your only choice. We realised that we don't need to raise their awareness in the first place, but we need to provide the conditions for children to stay in school.

### Against this background, how do you assess aid projects, such as [“Community Development and Child Protection in Kolwezi, Congo”](#), which Mercedes-Benz is implementing together with the NGO Bon Pasteur?

It's a good initiative and Bon Pasteur is a strong organisation that really has the children's wellbeing at heart. So, the engagement of Mercedes-Benz is a commendable one. Generally speaking, it's important to look at such initiatives with a long-term perspective. We've seen children getting into programs, but as the families are not necessarily part of the remediation activities, they had to go back to work after a while. Also, once the children become 14 or 15 years old, the schooling opportunities might be very limited. We need to ensure a continued support for those



The organisation Bon Pasteur enables children to attend school and also supports the local population in building sustainable agriculture and strengthening their local community.

children, until they can stand on their own feet. That's a big challenge, not only in the DRC, but in other sourcing countries as well. Consequently, initiatives like Bon Pasteur are an important measure to support local communities for a certain time period. However, on top of that we need stable follow-up processes.

#### Apart from addressing the root causes, what other measures are needed to strengthen child rights?

Coming back to what I called a company's responsibility, it's important to look at the structures that business action creates. If these enable workers and their families to earn a decent income, this will also strengthen all those other outcomes that we want to have. I feel that we should start there and support these necessary structural changes. It's not an easy challenge to tackle, companies will need to get different actors coming together and collaborate. It's also one of the main tasks of our organisation.

#### How can human rights due diligence become a win-win situation for both children and corporate in terms of positive business outcomes?

We have observed that the first steps in this direction are already having a positive impact on corporate performance. For instance, the responsible management of supply chains, meaning the establishment of long-term and trustworthy relationships, will safeguard the company's supply in challenging times and ensure that the operations are running smoothly. Furthermore, if we go down to a single supplier or factory, data is showing that investments in workforce increases retention and productivity to certain levels. In the end, it's a must for many businesses to start thinking like that and establishing an effective sustainable supply chain management, to really value the workforce and to create a sustainable business. Having ESG criteria integrated in supply contracts in supply is presumably the most important lever – next to transparency, risk management and initiatives on-site.

#### Ines Kaempfer

has been serving as the Executive Director, and since 2021, the CEO of The Centre for Child Rights and Business in Asia, a social enterprise that helps businesses improve their direct and indirect impact on children, particularly in supply chains. Prior to joining the Centre, Ines was the Director of Learning and Impact at Elevate Ltd., a leading CSR learning and capacity building agency, and she also worked at the Fair Labor Association (FLA). She holds a PhD from the University of Fribourg. The study about cobalt mining from Save the Children Germany and The Centre, cited in the interview can be found [here](#).

## SOCIAL

- 152 People
- 188 Sustainable urban mobility
- 195 Traffic Safety
- 209 Human rights
- 227 Social commitment

This Sustainability Report also includes the content audited in the Non-Financial Declaration. The relevant passages in this Sustainability Report are marked in **blue font colour** in the continuous text. Audited graphs and tables are also referenced accordingly via footnotes. Unless explicitly noted, this content was audited with reasonable assurance. Unless marked with footnotes, graphs and tables have not undergone external audit, regardless of the colors used.

A photograph showing two Black men working on a car in a factory. The man in the foreground is wearing a black baseball cap, safety glasses, and a dark polo shirt. He is wearing grey work gloves and is focused on a task near the front headlight of a dark-colored car. In the background, another man wearing a white hard hat, safety glasses, and a blue polo shirt is also working on the car. The setting is an industrial or factory environment with overhead lighting and other equipment visible.

People

## Materiality and goals

**GRI 3-3**

Targets	Target horizon	Status as of 2022
<b>HR work in the transformation</b>		
Shape the transformation of the Mercedes-Benz Group for its employees in a responsible, socially acceptable and future-oriented manner	Ongoing	
Ensure lasting constructive cooperation between the company and employee representatives	Ongoing	
Further develop the “People Principles” and embed them in the Group. The aim is to create a common understanding for an agile and innovative management culture in the transformation	Ongoing	
Ensure market-conformant salary structures through compliance with the global remuneration policy	Ongoing	Target achieved
Support and further develop flexible and contemporary working time models	Ongoing	
Increase the Group's attractiveness as an employer for digitally talented people: Top 5 in the target ranking <sup>1</sup>	2030	Target achieved
Milestone: Top 7 in the target ranking <sup>1</sup>	2025	Target achieved
<b>Training and professional development</b>		
Ensure a high-quality, needs-based professional portfolio for training and dual study programmes	Ongoing	
Empower over 70% of employees to work successfully in the digital transformation <sup>2</sup>	2030	
Milestone: Enable 60–65% of employees to work successfully in the digital transformation <sup>2</sup>	2025	Target achieved
Restructure and regularly develop the training available to employees	Ongoing	
<b>Diversity and inclusion</b>		
Improve equal opportunities for all employees in the Group according to the “Inclusion Index” <sup>3</sup>	2030	
Milestone: 70% approval rate of the “Inclusion Index” <sup>3</sup>	2025	Target achieved
Increase the quota of women in senior management positions <sup>4</sup> to 30%.	2030	
<b>Health and occupational safety</b>		
Enable employees to work in a healthy and safe environment	Ongoing	
Further promote the digitisation of health management	Ongoing	
Use a uniform accident documentation system worldwide and introduce it at the German production locations	2023	

1 Target ranking in [Trendence study](#) (survey period from October 2021 to February 2022) among IT college graduates (Germany).

2 Employee survey (survey period from September 2021 to October 2021), agreement rate on development of skills for the digital transformation.

3 Employee survey (survey period from September 2021 to October 2021), approval rate regarding fair treatment regardless of ethnicity, gender, age, disability or other differences.

4 [Management level 3](#) and higher, Mercedes-Benz Group worldwide (headcounts, fully consolidated companies).

The Mercedes-Benz Group is in the midst of a transformation towards locally emission-free and networked mobility. This transformation affects not only products, technologies and business models. It also affects the corporate culture and the entire workforce: Working processes and structures are changing just as fundamentally as employee tasks, job profiles and cooperation within the Mercedes-Benz Group.

A total of 168,797 employees<sup>1</sup> around the world are using their skills, innovation and dedication to help ensure that the Group can successfully overcome the associated challenges. Together with them and their essential motivation as well as willingness to change, this transformation is a huge opportunity for a sustainably successful company. The Mercedes-Benz Group's goal here is to shape the necessary changes for its employees in a responsible, socially acceptable and future-oriented way.

The human resources strategy adopted 2021 supports the Mercedes-Benz Group in meeting the special challenges and requirements of the personnel transformation.

The Mercedes-Benz Group therefore also invests continuously in qualification measures for its employees and recruits new staff whose qualification profiles will be needed in the future. In order to attract such employees and retain them for the long term, the Mercedes-Benz Group takes measures to create an attractive and future-oriented working environment for its employees, among other ways by offering them modern and flexible forms of work that it continuously enhances. Particularly in challenging times such as those we now live in, respectful and trust-based cooperation between the workforce and the management is extremely important. The Mercedes-Benz Group therefore promotes a diverse and inclusive corporate and management culture.

The Group also wants to make possible a safe and healthy working environment.

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<sup>1</sup> Workforce from 31.12.2022 not incl. temporary workers during vacations, integrated master's degree students, interns, working students, doctoral candidates, senior experts and trainees

# HR work in the transformation

## Strategy and concepts

### Organisation and control

GRI 3-3

The Human Resources (HR) unit of the Mercedes-Benz Group is the “HR business partner” or “HR partner” of the Group’s own business units. In addition, overarching personnel issues are assigned to units in order to ensure uniform management of strategic and policy matters. HR is represented on the Board of Management of Mercedes-Benz Group AG as a separate functional division. Within HR, there is decision-making and communication structure at different [management levels](#).

### Realignment of the human resources strategy

GRI 2-23/-24

The HR team of the Mercedes-Benz Group is convinced: changes are only possible through people. The people and the culture are the key to a company’s success. This is also reflected in the mission “People are our business. We build the future”, which the

Human Resources unit adopted in November 2021. To implement this mission, along with an attractive product portfolio, changed structures and new skills are needed in the HR organisation. Human Resources employs the new strategy to shape the personnel transformation of Mercedes-Benz and support the people in this process – as a mediator between the Group and the employees. The HR strategy, which was adopted in July 2021, rests on three pillars: Re-Shape, Re-Skill, Re-Charge.

The “Re-Shape” pillar comprises the future-oriented positioning of the Group. On the one hand, electromobility and digitalisation require new skills from the existing team in production and administration; on the other hand, new specialists are also needed – for example in the IT sector.

With “Re-Skill”, the Mercedes-Benz Group wants to ensure that employees are equipped with the necessary know-how for future activities and tasks – for this, it wants to train and qualify them accordingly.

### HR Strategy

People are our business. We build the future.



To retain trained professionals in the Group and recruit new talents, the Mercedes-Benz Group strives to continue positioning itself as an attractive employer. The Mercedes-Benz Group is pursuing this goal within the “Re-Charge” pillar. It sees the development of an appropriate corporate culture based on trust as an important factor for this.

## Cooperation and management culture

GRI 404-3

The Mercedes-Benz Group believes that the interplay of strategy and corporate culture offers a key competitive advantage. The company therefore works constantly to improve its management culture and the way people throughout the organization cooperate.

The “Leadership 2020” initiative that was launched back in 2016 (later known as “Leadership 20X”) laid the basis for the Mercedes-Benz Group’s future success. Working groups with a diverse composition of employees and managers agreed with the Board of Management of the Mercedes-Benz Group AG on how good leadership should be understood and which structural changes and tools are needed in order to transform the way we currently work (Game Changer). One of the results of the working groups was People Principles for cooperation: Pioneering Spirit, Agility, Purpose, Empowerment, Customer Orientation, Co-Creation, Learning and Driven to Win. The initiative was completed in 2021, but the principles are still used as a basis for leadership and cooperation at the Mercedes-Benz Group.

The resulting framework, within which the Group is looking to further develop its culture, is an integral part of the processes for human resources development and decision-making, as well as the organizational structures and work methods and tools. The units use the shared basis of the People Principles to focus on their own specific areas and develop measures to be taken. The Mercedes-Benz Group is convinced that by living the “People Principles” in their work environment, employees make the Group even more efficient, flexible and innovative.

## Involvement and co-determination of employees

GRI 3-3

The Mercedes-Benz Group is committed to fulfilling its social responsibilities and makes every effort to take

into account both the economic interests of the Group and the interests of its employees. For this reason, the Mercedes-Benz Group in Germany works with the employee representative body to get employees actively involved in the Group’s affairs. One of the goals here is to ensure constructive cooperation between corporate management and the employee representative body. Corporate management and the employee representative body also maintain an ongoing dialogue.

## Firmly establishing working and social standards

GRI 2-23/-24 GRI 3-3

In 2002, Mercedes-Benz AG issued its own Group-wide Principles of Social Responsibility, which are based on the International Labour Organization (ILO) work and social standards. These principles were completely reworked and comprehensively supplemented in 2021 and republished as the Principles of Social Responsibility and Human Rights.

### ↗ Declaration of Principles

Reported violations of the Integrity Code or internal regulations, as well as legal regulations, that pose a high risk to the Mercedes-Benz Group and its employees are followed up by the whistleblowing system, the Business Practices Office (BPO).

### ↗ The whistleblower system BPO

Furthermore, the Mercedes-Benz Group is committed to its social responsibility and the ten principles underlying the ↗ UN Global Compact (UNGC). As a participant in the UN Global Compact, the Mercedes-Benz Group has committed itself, among other things, to respecting key employee rights.

## Measures

### Responsible transformation

Depending on their product portfolio and the size of their operations, the Mercedes-Benz Group sites, and thus the company’s various groups of employees, are affected to different degrees by digitalization and the transformation of the mobility and transport sector into a system of electric mobility. The aim of the Mercedes-Benz Group is to shape the transformation in a responsible, socially compatible and future-oriented manner. The Mercedes-Benz Group assumes responsibility for its employees through individual training and further development measures.

However, change requires security more than anything else. That's why the company signed an agreement that gives the employees at Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG a job-security guarantee for the period until 2029. The agreement excludes the possibility of business-related layoffs until 31 December 2029.

### **Target visualisation provides guidance**

For the transformation to be successful, it needs to have a final destination and a roadmap for getting there. For this reason, the various sites (currently the major component and assembly plants) are developing goals for the transformation process. The sites are also identifying key topics that will then be translated into specific measures and subsequently implemented. Examples of such measures include qualification and retraining programmes. The Digital Pioneers initiative is part of this approach. In 2022, production employees in Berlin and Stuttgart-Untertürkheim were able to undergo customized retraining able to undergo customized retraining on digitalization topics. Other options also include relocation or offers outside the Group.

### **↗ New training and learning opportunities for employees**

### **Transformation and communication**

Another goal at the Mercedes-Benz Group is to get employees on board for the changes that are coming in the transformation, and also motivate and enable them to actively participate in the change process. To this end, it launched the initiative TransformatiON – Gemeinsam aufbrechen (TransformatiON – Setting off together) in the Powertrainverbund (⌚ powertrain network) in 2022.

The scope of the transformation is particularly noticeable in the "Powertrain Network" and the associated areas. This means that new communication channels are needed there in order to inform, involve and support workers even better. TransformatiON uses information, interaction, dialogue and feedback as central elements that are offered in new formats and via new channels. These formats and channels are being developed with the help of Transformation Ambassadors — employees from various units and functions who are actively participating in the change process and serve as contacts for their colleagues. Together with management, they identify key challenges for the workforce during the transformation and develop solutions that are initially

introduced at the traditional German locations in the Powertrain Network.

### **Modern and attractive working conditions**

Employees and new talents expect modern and attractive working conditions that are adapted to their needs and are constantly further developed. To meet these requirements, the Mercedes-Benz Group is designing a corresponding working environment – and offers employees e.g. competitive remuneration, flexible working time models and the opportunity to combine private and professional life.

### **Attracting and retaining new talent**

The function of the Human Resources Development unit of the Mercedes-Benz Group is to recruit and retain highly qualified employees for challenging work responsibilities. The company's global employer branding provides the basis for making talented new job-seekers aware of the company and recruiting them.

The Mercedes-Benz Group has revised its employer branding and, since the beginning of 2023, has appeared on the labour market with the new slogan "Becoming .... One of Us" and the new employer value proposition "Together for excellence". The campaign places the focus on people.

In the reporting year, the Mercedes-Benz Group placed a special focus on recruiting IT and software specialists for the future Mercedes-Benz Operating System (MB.OS). This system, which was largely developed in-house, is a data-supported software and hardware architecture that can be flexibly updated. The Group strives to use this system to intelligently connect the vehicle with the cloud and with the Internet of Things (IoT). MB.OS is expected to be launched in Mercedes-Benz vehicles in 2024. In a special area of the Group's career website it offers talented job-seekers from the world of IT who are interested in this area all the important content and information about MB.OS – for example, interviews with the company's software experts, who provide insights into their work and various topic areas, as well as current job offers.

Moreover, in 2021 the Mercedes-Benz Group and the works council – with the approval of the collective

bargaining parties – agreed a new set of conditions for new employees in the area of MB.OS at the Sindelfingen location. These are especially tailored to the needs and demands of software professionals: Accordingly, they can organise their working hours more flexibly and independently and are remunerated on a more performance-oriented basis. Employees who are already working in the MB.OS environment have been able to switch to the new system voluntarily since January 2022.

### Attractive and transparent remuneration

GRI 2-19/-20/-21 GRI 401-2 GRI 405-2

The Mercedes-Benz Group remunerates work in accordance with the same principles at all of its companies around the world. The Corporate Compensation Policy, which is valid for all groups of employees, establishes the framework conditions and minimum requirements for the design of the remuneration systems. Among other things, it stipulates that the amount of the remuneration is determined on the basis of the requirements of the job profile in question (taking into account, for example, the person's knowledge, expertise, responsibilities and decision-making authority) and, where appropriate, performance. However, it does not take account of gender, origin or other personal characteristics. The internal auditing department conducts random annual internal audits to determine if selected aspects of the policy are being complied with. Here, the Group also takes into consideration local market conditions and benchmark data, because the Mercedes-Benz Group wants to offer its employees salaries and benefits that are customary in the industry and the respective markets.

The Human Resources departments of the companies regularly hold rounds of talks to review the salary levels of employees and managers. In this way, the Mercedes-Benz Group ensures transparency in salary decisions in compliance with data protection regulations. Employees who are not satisfied with their remuneration can speak to their manager. If the employee and the manager fail to resolve the issue, the responsible human resources unit or works council can be brought in.

In companies covered by collective agreements, such as Mercedes-Benz Group AG, further rights for employees result from the collective agreements: among other

things, they can object to their placement in a specific salary group or to the results of their performance assessment.

For non-production employees of Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG in Germany below Level Four, there has been a standardised, one-year management process in place since 2007 as part of the introduction of the [Remuneration Framework Agreement \(ERA\)](#). Managers and their employees agree on goals, targets and areas of focus for their work, which they verify jointly with appropriate measures in an interim or final review, if needed. Agreements are also made regarding the employee's further professional development in the process.

A standard regulation regarding performance-based remuneration applies to employees at Mercedes-Benz Mobility AG and Mercedes-Benz Bank AG (including their subsidiaries). According to the remuneration group from the Service Supplementary Collective Agreement of 1999, an annual target salary is contractually fixed. This consists of a fixed and a variable component. A performance appraisal/target achievement process is conducted annually: employees below Level Three define individual goals and targets with their respective managers at the beginning of each year, which are likewise verified in an interim or final review. The PA/TA process helps managers and employees to formulate targets that are acceptable to both sides. It also increases transparency and thus acceptance of the remuneration system.

The remuneration arrangements and pay scales for employees covered by collective agreements at Mercedes-Benz Group AG, Mercedes-Benz AG, Mercedes-Benz Mobility AG, Mercedes-Benz Bank AG and Mercedes-Benz Intellectual Property GmbH & Co. KG can be viewed on the Social Intranet. The salary components and levels, plus the comparison groups, can be viewed here.

In addition, pay-scale employees and managers of Mercedes-Benz Group AG and its subsidiaries benefit from predominantly voluntary benefits which are agreed with the respective employee representatives. These include, for example, employer-financed contributions

to the company pension plan and options to take out an employee-financed pension plan. In many cases, employees who are subject to collective bargaining agreements can also participate in profit-sharing arrangements at their respective companies.

The variable remuneration of management (managers of Levels 1–3 and Level 4 executives) is based not only on financial targets but also on transformation goals and non-financial targets. These support the corporate strategy with regard to the defined focal areas for the future, as well as sustainability and  **ESG aspects**. The components take into account for example CO<sub>2</sub> emissions, safety innovations, quality, employee engagement, integrity and diversity.

 [Remuneration Report 2022](#)

## Modern working time models

**GRI 401-2/-3 GRI 404-2**

The Mercedes-Benz Group continuously further develops its working culture — and thus its working-time arrangements as well. It will increasingly make use of hybrid forms of work in the future and thus enable its employees, depending on their tasks and the work processes they use, to work either remotely or on site in their offices. It is important for the company to maintain a balance. This common creative freedom should contribute to the enhancement of the performance and satisfaction of the employees at the Mercedes-Benz Group in Germany. With its comprehensive company-wide agreement on mobile work that has been in force since 2016, and in a process of constant dialogue with the works council, the Group creates the necessary framework for hybrid working models. In the reporting year, the Mercedes-Benz Group developed an action recommendation, including training offers for hybrid forms of working. In addition, employees of the Mercedes-Benz Group in Germany can also work remotely for private reasons temporarily from abroad since March 2023.

Modern working models also affect the design of new offices, as well as the use of existing workspaces: the Mercedes-Benz Group in Germany seeks to offer its employees modern workplaces – and flexible work opportunities that serve above all as a meeting place for discussion, creativity and innovation.

The Board of Management issued guidelines on this in 2021. One cornerstone of successful cooperation is trust and the creation of a sense of belonging by managers. Continuously developing the self-direction and self-management of employees is an important management task in this context.

In Germany, the Mercedes-Benz Group also offers a wide range of part-time working arrangements — for example, employees can reduce their working hours and spread their daily, weekly or monthly hours over a period of one to five days, or work in a blocked part-time arrangement (alternation between full-time work and time off).

The Mercedes-Benz Group also promotes job-sharing arrangements at all levels, especially in Germany who share a common task or position on a part-time basis. This is especially helpful for employees with challenging home situations who wish to balance their professional and private lives more effectively and continue to develop professionally by sharing a job. The Mercedes-Benz Group is convinced that a job-sharing model with two people combining their experience, strengths and networks brings better results with regard to complex professional and/or management tasks. Three internal part-time work communities were set up in 2015 in order to facilitate the search for a tandem partner. These communities bring together potential tandem partners, regardless of whether they are in administration and production units or in management positions. In the reporting year, there were 211 tandems at the management level in the Mercedes-Benz Group.

In addition, employees at Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG can agree to take a sabbatical ranging from three months to one year. Subsequent reinstatement is guaranteed. Employees who wish to obtain additional qualifications — including pursuing a course of study at a university — can also make arrangements to take a three to five-year leave with guaranteed reinstatement.

## Promoting work-life balance

**GRI 401-2/-3**

Mercedes-Benz Group AG, Mercedes-Benz AG, Mercedes-Benz Intellectual Property GmbH & Co. KG as well as Mercedes-Benz Mobility AG and

Mercedes-Benz Bank AG offer various types of working-time arrangements and other options to support employees who have children or who care for relatives. For example, employees in Germany have access to over 590 childcare places in day care centres near the company's locations. In addition, there are more than 190 other dedicated places at various locations in Germany.

In addition, the Mercedes-Benz Group also wants to make it easier for their employees in Germany to get back to work after taking parental or family leave. For example, they can get news from the Group on the Social Intranet and access the internal job exchange during their parenting and family time. Furthermore, the Mercedes-Benz Group also supports mothers and fathers in Germany with counselling offers for the transition to parental leave and for keeping in touch during their leave. In addition, there are regular information events and experience-sharing opportunities for expectant parents and employees on parental leave. To ensure that all interested employees across Germany can participate, the events take place digitally. For questions about parental and family leave, employees also can turn to contact persons of the HR Service Centre.

In 2022, 4,089 employees of Mercedes-Benz Group AG, Mercedes-Benz AG, Mercedes-Benz Mobility AG and Mercedes-Benz Bank AG were on parental leave.

Since early 2022, all employees of Mercedes-Benz Mobility and Mercedes-Benz Bank, including subsidiaries in Germany, have been able to take advantage of an external platform on the topics of "Babies & Children" and "Schoolchildren & Teenagers". There they receive supportive offers for coping with everyday challenges associated with relationships and family life.

Since mid-2020, the Mercedes-Benz Group in Germany has further expanded its cooperation with an external care counselling service. Employees can obtain advice around the clock on the topic of care. The external care service also provides consultations at home.

In addition, the Group offers online events on various care topics such as general power of attorney, financing care costs or dementia. Employees who want to take

care of their relatives can take up to four years off work beyond the legal provisions – with a promise of reinstatement – or reduce their working hours temporarily as needed.

## **Management culture**

### **GRI 404-3**

The transformation of the Mercedes-Benz Group also places new demands on management. [The Group wants to enable managers to perform their important roles in the technical, strategic and cultural transformation](#). The basis for this is provided, in particular, by the "People Principles" which are valid throughout the Group.

Among other things, the Group has a personnel development tool for its managers. The online tool is available for all managers up to and including Level Four. "360° feedback" is also part of this tool: Superiors, employees and selected colleagues give feedback to the manager. The assessment is based on the "People Principles" and is intended to help the managers to further develop their behaviour and improve their own performance.

[The new hybrid world of work poses different challenges for the leadership culture within the Group. In order to support managers as much as possible in their roles and their tasks, the Mercedes-Benz Group offers them in-class and online training courses that focus on the opportunities and the framework of leadership. The company also continuously further develops these courses. "Gear-up — increase your leadership impact", for example, is a digital development programme that addresses in a targeted manner the new challenges relating to leadership with regard to innovation, cooperation, sustainable development and personal resilience. Another programme known as "Shaping the Future — Leading for Success" focuses on the topic of strategy implementation and shaping the transformation. More specifically, this involves the complex environment and the challenges that arise from it in terms of management and leadership. In this programme, internal and external specialists give lectures that generate momentum and offer space for discussions and exchanges. Both programmes are offered to executives who have been nominated in advance by their division and HR.](#)

In addition, hybrid teams equipped with great cross-divisional expertise have been formed. These teams support managers within the Mercedes-Benz Group in managing change processes with impulse sessions and blueprints for successful team discussions. Participants can engage in direct exchange with members of the Board of Management and obtain guidance for their challenges as managers. The formats are aimed at managers on different levels.

Managers receive further support from a worldwide network within the Mercedes-Benz Group, whose members are to live and drive the changes as role models in their areas. It consists of experts and volunteers, some of whom were already involved in the Leadership 2020 initiative. In their role as network members, they support their colleagues and managers in the current change processes.

## Dialogue with employee representatives

**GRI 2-30** **GRI 402-1** **GRI 407-1**

The Mercedes-Benz Group acknowledges its employees' right to form employee representative bodies and conduct collective bargaining in order to regulate working conditions. It also recognizes their right to strike in accordance with the applicable laws. Important partners here include the local works councils, the General Works Council, the European Works Council and the World Employee Committee (WEC). Collective bargaining agreements exist for the majority of employees throughout the Group. Such agreements apply to all non-exempt employees subject to collective bargaining agreements at Mercedes-Benz Group AG and Mercedes-Benz AG and at other units at the Group. In jointly constituted committees, the company representatives regularly inform the employee representatives about the economic situation and all of the key changes at the company. In Germany, extensive regulations covering this are anchored in the Works Constitution Act. In the event of decisive changes, employees are informed at an early stage.

Corporate management and the employee representative body also maintain an ongoing dialogue. This is all the more important in times of transformation, as far-reaching strategic agreements have to be reached. The Mercedes-Benz Group attaches great importance to constructive cooperation. The results of the ongoing

dialogues, and thus the rights of employees as well, are defined, among other things, in a number of plant and company-wide agreements that address a multitude of issues such as mobile working, family leave and home health care.

In the reporting year, the employee representatives and Group management again reached various agreements and arrangements: within the framework of the "Electric only" approach, for example, a new European production setup for the coming years was agreed on in 2022. The agreement provides for production operations for the repositioned product portfolio to be focussed on electric vehicles in the luxury segment. The focus on next-generation electric platforms is a decisive step towards securing the future of European vehicle sites and the jobs there.

Another example is the so-called "job bike": for this, the partners agreed to expand the existing mobility offer for employees of the Mercedes Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG to include a bicycle loan scheme.

The local youth and trainee representation looks after the interests of trainees and young employees at the German locations. A "General youth and trainee representation body" (GJAV) has also been formed across all locations. It represents the interests of the young generation in the Group, contributes ideas and sets impulses within the framework of its co-determination function. This is achieved through dialogue between the GJAV and the departments, especially with HR.

## Effectiveness and results

### Effectiveness of the management approach

**GRI 3-3**

The Group-wide employee survey is a key indicator of where the Mercedes-Benz Group stands with regard to various issues from the point of view of employees, and where there is still potential for improvement. One of the topics addressed is corporate culture. The Mercedes-Benz Group generally conducts the survey at least every two years; the last survey was carried out in 2021. A shorter representative sample survey

known as the Pulse Check is conducted between the major surveys. These surveys ensure that the Group companies receive extensive feedback from their employees. The survey helps to continuously improve the management and corporate culture and to steadily develop the working culture in the transformation process. In addition, other channels are also open for employees and managers to provide feedback.

Furthermore, the Mercedes-Benz Group uses the annual "Sustainability Dialogue" to obtain feedback from stakeholders from various sectors of society such as business, associations or science. Within the framework of various working groups, the Mercedes-Benz Group addresses current and future sustainability issues. At the end of October 2022, the [“Sustainability Dialogue”](#) was held for the 15th time. The working group "People & Integrity" focused on the question of the success factors for a transformation.

The results of the dialogue, which took place as a hybrid event in the reporting year, are incorporated into further activities in the areas of integrity and human resources.

## Results

**GRI 3-3 | GRI 401-1 | GRI 404-3**

The transformation of the economy creates challenging tasks for companies, and the past year was no different in this regard. It has shown the importance of constructive partnerships between the workforce and the management, as well as between the corporate management and the employee representative body, because this is the only way that viable solutions can be found. With this in mind, the Mercedes-Benz Group and the employee representative body succeeded in reaching long-term agreements in 2022. Among other things, the new production setup that was agreed on provides for various assembly plants throughout Europe to begin manufacturing products with new technologies. This will safeguard the future of the sites in question as well as the jobs they offer.

In addition, goals have been set for the plants in Hamburg and Berlin. Initial measures have already been launched and implemented on this basis – in particular, qualification measures such as the Digital Pioneers initiative.

International standards apply at the Mercedes-Benz Group, such as the principle of equal pay for work of equal value in the respective company, regardless of gender difference.

The internal auditing department conducts random annual internal audits to determine whether selected aspects of the Corporate Compensation Policy are being complied with. The company did not become aware of any material violations of the policy during the reporting year.

During the year under review, the Mercedes-Benz Group also expanded its leadership programme to include elements that enable managers to identify coming leadership challenges and requirements, and obtain the qualifications to address them.

Measures are derived as part of the follow-up process to the employee survey. For example, one measure from the 2021 Employee Survey was the introduction of a strength assessment for all managers at the Group worldwide. This assessment helps managers identify their individual strengths and learn how to better understand them. They can use the lessons learned to develop themselves personally, strengthen their teams and promote the corporate culture.

Another new programme is “Gear-up”: this digital development programme is oriented towards the changing challenges of management. It offers social and digital learning formats, as well as individual coaching elements, to the international group of participants. In addition to new content and impulses, the focus is always on dialogue and networking in the global group of participants. The Group also developed further tailor-made programmes for other target groups.

In this regard, the “People Principles” are elementary as a framework for the development of an agile and innovative management culture.

An important external indicator by which the Mercedes-Benz Group measures its attractiveness as an employer for digital talents (IT graduates in Germany) is the “Trendence study”: The interim goal of the Mercedes-Benz Group is to be among the top seven most popular employers by 2025, and to maintain this

ranking. This target was exceeded in the reporting year with 5th place<sup>1</sup>.

The “Pulse check” in 2022 showed that 75% of the employees surveyed are satisfied or very satisfied with the Mercedes-Benz Group as an employer. The next company-wide employee survey is scheduled for 2023.

The loyalty of employees towards the Mercedes-Benz Group is also reflected in the average length of service: this amounted to 16.8 years in the reporting year. In 2022, employees in Germany had worked for the Group for an average of 19.9 years. Outside Germany, the average length of service was 9.7 years. The global employee turnover rate of the Mercedes-Benz Group in 2022 was 7.3%.

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<sup>1</sup> Target ranking in study by “Trendence” (Survey period from October 2021 to February 2022) among IT graduates (Germany); Result refers to the then Daimler Group in Germany.

# Key figures

## Fluctuation rate (in %)

**GRI 401-1**

	<b>2021<sup>1, 2, 3</sup></b>	<b>2022<sup>1, 3</sup></b>
Europe	7.5	<b>6.1</b>
- thereof Germany	7.2	<b>5.6</b>
NAFTA	13.9	<b>17.7</b>
Asia	11.0	<b>10.2</b>
Rest of world	9.1	<b>6.9</b>
<b>Total</b>	<b>8.7</b>	<b>7.3</b>

1 These data cover the Mercedes-Benz Group.

2 Because these are average values, Daimler Trucks & Buses is included in Q1-Q3 2021

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

## Employees entitled to parental leave<sup>1</sup>

**GRI 401-3**

	<b>2021<sup>2</sup></b>	<b>2022<sup>2</sup></b>
Men	88,605	<b>87,128</b>
Women	18,094	<b>18,241</b>
<b>Total</b>	<b>106,699</b>	<b>105,369</b>

1 Active workforce excluding holiday workers of Mercedes-Benz Group AG, Mercedes-Benz AG, Mercedes-Benz Mobility AG and Mercedes-Benz Bank AG.

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

## Employees on parental leave<sup>1, 3</sup>

**GRI 401-3**

	<b>2021<sup>2</sup></b>	<b>2022<sup>2</sup></b>
Men	2,922	<b>3,017</b>
Women	1,095	<b>1,072</b>
<b>Total</b>	<b>4,017</b>	<b>4,089</b>

1 Active workforce excluding holiday workers of Mercedes-Benz Group AG, Mercedes-Benz AG, Mercedes-Benz Mobility AG and Mercedes-Benz Bank AG.

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

3 Return rate 99.9%

# Training and professional development

## Strategy and concepts

### Transformation of training and professional development

GRI 3-3

The transformation is changing numerous job profiles, tasks and requirements profiles. This is transforming the qualifications needed for many positions. The company therefore places “lifelong learning” and the further training of employees at the centre of its sustainable development of human resources. The range of the portfolio of training professions offered by the Mercedes-Benz Group in Germany, and the courses of study offered in dual work-study programmes, is also changing as a result.

The Mercedes-Benz Group invests extensively in training and professional development programmes for its employees and continuously adjusts its qualification and HR development programmes. The company has also launched a worldwide qualification offensive known as Turn2Learn. In Germany alone, Mercedes-Benz plans to invest a total of more than € 1.3 billion in the training and professional development of employees by 2030. The aim is to maintain the competitiveness of the Mercedes-Benz Group over the long term.

### Organisation and areas of responsibility

GRI 2-23/-24 GRI 3-3 GRI 404-3

Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property GmbH & Co. KG structure their training and qualification processes throughout Germany in line with various company-wide agreements.

These are, among others a company-wide agreement on qualification and the 2022 company-wide agreement on the integration of external learning platforms into the Mercedes-Benz Group's qualification programmes.

↗ [New training and learning opportunities for employees](#)

The new general works agreement on external learning platforms underlines the importance of a high degree of self-determination for lifelong learning. Among other things, the agreement specifies the usage of the platform during and outside the working hours for the 80,000 employees who have access. The General Works Agreement on training, on the other hand, regulates the cooperation with the works council in determining training priorities and defines the process for demand-based planning of training measures.

Both of the aforementioned agreements are designed to strengthen the responsibility managers and employees share for qualification measures. In addition, the agreements serve to standardize the qualification process, structure it more efficiently and integrate external training elements into the learning portfolio.

With regard to the core workforce, the general works agreements also aim to secure or further develop personal qualifications, and to further qualify all employees in terms of technical and/or leadership skills. In addition, they formulate the expectation that the employees of the participating companies will take an active role in the training process and develop career perspectives independently. Furthermore, an annual qualification review with the immediate superior is provided for, in which both sides agree on the next training steps. Overarching qualification focus areas are agreed annually at the location level between the corporate management and the works council. Among other factors, these focus areas are oriented to the production programme of the respective location.

↗ [Building digital skills](#)

### Sustainable development and management of human resources

The Mercedes-Benz Group employs a sustainable personnel planning and development approach because it needs highly qualified employees with the right skills, whether in the field of electric mobility or in one of the

many digital disciplines that are becoming increasingly important.

What kinds of expertise and skills does Mercedes-Benz AG need in order to successfully implement the transformation? Does the company have the right personnel with the right skills at its disposal? These and other important questions are being addressed by the Tech-Academy Production and Supply Chain Management at Mercedes-Benz Cars, for example.

#### ↗ The Tech Academies and the Global Training Centre

### Using temporary work as an additional flexibility reserve

#### GRI 2-8

Cooperation with external service providers and temporary employment agencies is an important lever in the quantitative human resource planning: by employing temporary workers in Germany, the Mercedes-Benz Group is better able to respond to fluctuating production requirements and market conditions.

The Mercedes-Benz Group in Germany has made agreements in order to be able to respond flexibly to market fluctuations and thus to retain the core workforce and job. The provisions of the works agreements "Safeguarding the Future of Daimler" and "DMove" have been extended until the end of 2024 for the Mercedes-Benz Group AG and Mercedes-Benz AG locations in Germany. The Mercedes-Benz Group concept is: temporary employees complement the regular workforce, they do not replace it.

## Measures

### Trainees and students

#### GRI 404-2

In the reporting year, some 1,200 trainees and participants in dual study programmes began their vocational training at the Mercedes-Benz Group in Germany.

Professional training is carried out in a dual system – i.e. in plants/offices and at trade schools. This gives trainees a realistic picture of the work in the company, and in many cases allows them to already qualify and recommend themselves for subsequent employment with the company.

The Mercedes-Benz Group also offers dual university studies in internationally recognised Bachelor's degree programmes at various company locations in Germany. The lectures are supplemented by practical assignments in Germany and abroad. After the cancellation of foreign assignments in 2020 and 2021, due to the coronavirus, the dual students were once again sent off to practical assignments around the world in 2022.

The Mercedes-Benz Group has established a Mercedes-Benz Training System for Germany that standardizes training content across all sites and divisions. Regular checks are made to see that the content is user-friendly and up to date and that duplication does not occur. Hybrid formats allow for both in-class learning and online course components. The goal here is to create high-quality and efficient training programmes that are attractive to trainees and participants in dual work-study programmes.

Mercedes-Benz Group training programmes are fundamentally needs-based and continuously reviews its portfolio of training occupations in Germany. In doing so, the company not only reacts to current developments – it also anticipates future requirements and technological innovations. For example, the Group analysed the requirements of future IT professions and used this as a basis for expanding its portfolio to include digital training professions for IT in the industrial sector, and it also introduced a course of study that focuses on the interface between IT and electrical engineering (embedded systems). In 2022, it also tested the use in training programmes of content relating to artificial intelligence by offering an additional qualification module, among other things. For further development of the professional portfolio in both training and dual studies, additional content such as the integration of sustainability or the needs related to the ☁ Metaverse were examined.

### Dealing with new technologies

The Mercedes-Benz Group in Germany provides its trainees and employees with exciting insights into new technologies: in its training workshops, there are spaces equipped with new technologies such as 3D printers, virtual painting and welding systems, as well as augmented and virtual reality goggles.

Mercedes-Benz AG is also increasingly using new learning methods such as gamification, peer-to-peer learning and interactive digital learning platforms for its training courses. These are developed and tested in the company's own workshops.

One example of this is the "EQS Transparent" project. Apprentices from technical and commercial occupational groups work closely together across locations and install the complete interior into an EQS bodyshell. In the process, the trainees gain technical insights, as well as important skills such as problem-solving ability and teamwork.

## New training and learning opportunities for employees

GRI 404-2

The Mercedes-Benz Group offers its employees an extensive range of professional and personal development opportunities. It conducts a large number of training programmes to make sure that its people have the right skills. It also continuously improves these programmes in order to ensure that its employees remain employable over the long term in a changing environment — and that they never lose their innovative capability. The Mercedes-Benz Group is now realigning its qualification approach within the framework of its Turn2Learn initiative, which puts lifelong learning and the further education of employees at the centre of its sustainable personnel development activities.

The Turn2Learn initiative addresses the qualification system throughout the entire Mercedes-Benz Group. Among other things, the initiative is being used to combine and optimize existing training and education programmes, which are being supplemented by large-scale opportunities for e-learning via external learning platforms.

Corporate management and the employee representative body also maintain an ongoing dialogue professional further education and training. When selecting the formats, the Mercedes-Benz Group seeks to enable employees to exercise as much self-determination as possible. Learning and education thus become a natural part of daily work. The learning paths are to accompany the employees throughout their professional lives. They are continuously updated and supplemented and thus create tailor-made training opportunities. At the same

time, the Group increases the transparency of expertise and skills across teams and divisions.

### The Tech Academies and the Global Training Centre

[The Tech Academy Production and Supply Chain Management at Mercedes-Benz Cars analyses](#) - with help of Strategic Resource Management, integrated in 2021 - current and future personnel requirements for production areas and interdepartmental functions — for example, in the areas of quality assurance and production planning, as well as for logistics at Mercedes-Benz Cars.

The Tech Academy uses the analyses to develop future-oriented qualification and retraining measures in line with the needs of specific target groups. This strategic approach enables recognising possible personnel bottlenecks and a lack of know-how at an early stage and taking appropriate countermeasures. There is a special focus on the topics of "digitalisation", "software" and "electrics/electronics (E/E) skills".

Cooperation between the Tech Academy and representatives from specialist production units at Mercedes-Benz Cars led to the establishment of the Transformation Hub in mid-2021. This working group manages all qualification and retraining measures across all units and departments. It also uses personnel requirements analyses to develop skills profiles for key functions that need to be filled. Besides basic requirements such as the field of study or training, the skill target profiles also describe skills that will be relevant in the future. The required skills can then be acquired with the help of target-group-specific learning paths.

To safeguard the future and the innovative strength and thus the future of the Mercedes-Benz Group, the company assigns special importance to the continuous further qualification of employees in research and development. [A Tech Academy that offers needs-based future-oriented training components has also been established for employees in the development units at the Mercedes-Benz Group in Germany](#), that can significantly shape the products of tomorrow. The focus here is on the current strategic topics "Lead in Car Software" and "Lead in Electric Drive".

Within the sales organization of Mercedes-Benz Group AG, the Mercedes-Benz Global Training business unit

serves as the central pillar for the development and qualification of employees of the German and international retail operations. In addition to the training and certification of sales and service personnel as well as dealership management, the unit provides comprehensive advanced training and various product training courses. Moreover, it focuses, among other things, on qualification content for electrical systems/electronics and high voltage. For employees at headquarters and in its own sales companies, Mercedes-Benz Group AG offers continuing education programmes that have been comprehensively expanded as part of the Turn2Learn initiative — for example in the areas of digitalization and data science.

### **Building digital skills**

**GRI 404-1**

In light of the transformation, the Mercedes-Benz Group in Germany is placing a focus on qualifications that are crucial for the digitalization of the Group and the successful implementation of its sustainable business strategy.

“D.SHIFT” is part of the qualification offensive “Turn2Learn” with the emphasis on production. It places the focus on the further development of digital skills. As part of this initiative, for example, Mercedes-Benz AG offers suitably tailored digital retraining courses with individual support and corresponding, defined target positions, also at other locations, for the transformation of job profiles in production. After the success of an initial pilot project, in which employees at the Mercedes-Benz plant in Berlin – the “digital pioneers” – were provided with further training on their individual paths to becoming “junior software developers”, the project is also continued at the Mercedes-Benz plant in Stuttgart-Untertürkheim. This is where “digital superheroes” from production and production-related areas started their in-service training as “data specialists” in June 2022. The pilot projects will subsequently be rolled out to other locations.

With specifically developed learning paths, more than 250 employees are also being recruited for training as “data workers”. Four different learning paths are available for this purpose: “data product owner”, “data engineer”, “data analyst” and “data scientist”. Depending on their learning path, employees develop and design data-based products and processes, analyse large

amounts of data and look for patterns or information that can subsequently support decision-making.

### **↗ Responsible transformation**

#### **Part-time study**

Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Mobility AG also attach great importance to the academic training of their employees. For this reason, all companies in Germany offer employees with a permanent employment contract and at least one year of service the opportunity for part-time studies – regardless of their age and career development. The companies have set up the “Mercedes-Benz Academic Programs” for this purpose: the students are supported financially and with an accompanying programme. It includes, among other things, networking events, meeting points, alumni events, as well as counselling and support for students during their course of studies.

### **Management development**

**GRI 404-2**

The transformation of the Mercedes-Benz Group is a major challenge. Its managers play a key role in this. Sustainable human resource development is needed to prepare them for the new requirements. Accordingly, the Group offers employees appropriate further development programmes – for example, for personal preparation for a management career.

#### **Empowering employees for leadership tasks**

A key tool for management development and selection at the Mercedes-Benz Group is the “potential validation procedure for future managers”. The candidates complete various tasks and practical exercises in an assessment centre. Managers from different departments and from HR who have been specially trained evaluate the performance of the candidates and finally assess whether they are capable of taking on management tasks. In this procedure, the “People Principles” are also applied and taken into account.

### **↗ Collaboration and management culture**

The qualification programmes for managers in the Group impart a wide range of skills on the topics of “Leadership”, “Agile Working” and “Digital Transformation”. Courses are available to all managers worldwide, starting at the team leader level. New managers receive especially extensive support during the first 365 days

after their appointment. Programmes for talented and high-potential individuals are aimed at employees prior to taking up their first management positions.

In addition, the “Group leader development programme” is aimed at employees who want to take on a management role at Group leader level – for example in the production areas. The focus here is particularly on skills that are needed in the course of the increasing networking of plants and the digitalisation of production.

### **International talent training programmes**

Since 2018, the Mercedes-Benz Group has bundled a number of international talent programmes within the company under the label “INspire”. This includes for example “INspire – the Leaders’ Lab”. For the leadership programme, new employees are specifically recruited from outside the Group who, after successful completion of the programme, can take on a management position in the company. Within the 18-month leadership programme, participants take on important projects and complete an international assignment. In addition, a mentor from top management gives them support.

## **Effectiveness and results**

### **Effectiveness of the management approach**

**GRI 3-3 GRI 404-1/-2/-3**

In order to evaluate the effectiveness and success of a training measure, the Mercedes-Benz Group analyses the extent to which employees have been able to transfer the skills they have learned to a specific field of activity. One way to check this is through the annual qualification interview between the manager and the employee. The conversation between the Human Resources department and the specialist departments on strategic training needs are also used by the company for these analyses.

In addition, participants can provide feedback at the end of various qualification measures by completing a standardised survey. This enables evaluation of the effectiveness of the measures, and, if necessary, their adaptation in terms of content or methodological-didactic aspects.

Furthermore, the Group records the number of training days completed by the employees. With this key performance indicator, the Group can make quantitative statements on mandatory as well as voluntarily conducted training measures. To also enable qualitative statements to be made, the Mercedes-Benz Group uses the results of the employee survey. The Group expects this to produce reliable findings that can be used to evaluate and control the management approach.

### **Results**

The Mercedes-Benz Group in Germany seeks to ensure that its professional training and dual work-study programmes are of high quality. It also wants to make sure it can offer a modern needs-based range of professions in both areas. That’s why the company has redefined the portfolio of professions for its training programmes and for the Dual University for the period until 2025, and has also modified the professions, the courses of study and the recruitment figures for each professional group.

The occupational portfolio has been expanded to include digital apprenticeships in the industrial sector for IT specialists as well as a course of study at the interface of IT and electrical engineering, (embedded systems). The further development of training content in 2022 also involved the design and launch at the training locations of new internal qualification components for trainees that address topics such as cybersecurity, programming and data-based decision-making. These components also include extensive qualification programmes for the trainers themselves.

In order to expand the existing range of qualification programmes for Mercedes-Benz Group employees, the employee representative body and corporate management concluded a company-wide agreement in 2022 that governs the use of learning platforms. This has made it possible for a large number of employees worldwide to obtain licences to access such external platforms. In the reporting year, qualification measures continued to focus on digitalization and electric mobility.

In 2022, a total of around € 166 million was invested in training, dual-study programmes and qualification in Germany.

Since 2020, some 65,000 employees successfully completed a continuing education measure on subjects related to electromobility in the “Tech Academies” in Germany.

The Mercedes-Benz Group also pays attention to the progressive development of training measures. For example, the “potential validation procedure for future managers” was revised as part of the management development and implemented in most areas of the Mercedes-Benz Group during the reporting year. The adapted procedure places a greater focus on the topic of “leading in transformation” in the exercises and in the assessment, and includes new digital assessment formats.

In addition to the above-mentioned key figures on training days, the Mercedes-Benz Group endeavours to obtain findings about training topics with the help of the employee survey. As part of the employee survey conducted in 2021, the majority of the employees of the Mercedes-Benz Group replied with “Yes” to the question of whether their work environment helps them to acquire or enhance the skills they need for the digital transformation. The target corridor of 60 to 65% approval for 2025 was thus already reached in 2021. By 2030, the company wants to increase the figure to 70% through further training programmes and thus to expand the skills needed for transformation.

# Key figures

## Qualification, training and continuing education per employee/year (full-time and part-time employees)<sup>1</sup>

**GRI 404-1**

	<b>2021<sup>3, 4</sup></b>	<b>2022</b>
Cost for training (incl. cooperative universities) in € million	93	<b>97</b>
Cost for continuing education in € million	62	<b>69</b>
Qualification days employees/year <sup>2</sup>	1.6	<b>2.0</b>
- thereof qualification days women/year <sup>2</sup>	1.2	<b>1.7</b>
Qualification hours employees/year <sup>2</sup>	11.2	<b>16.0</b>

1 2021 Mercedes-Benz Group AG and Mercedes-Benz AG, from 2022 including Mercedes-Benz Intellectual Property GmbH & Co. KG and Mercedes-Benz Mobility AG

2 Please note: Because we increasingly use learning formats that are integrated into the work process, the qualification days do not necessarily correspond to the actual qualification scope.

3 Decline due to the COVID19 pandemic (in conjunction with lockdowns and short-time work at our locations as well as decimated on-site qualifications).

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

## Young professionals<sup>1</sup>

	<b>2021<sup>2</sup></b>	<b>2022<sup>2</sup></b>
Trainees	1,164	<b>1,032</b>
Cooperative universities	135	<b>147</b>
<b>Young professionals total</b>	<b>1,299</b>	<b>1,179</b>

1 These data cover the Mercedes-Benz Group in Germany.

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

# Diversity and Inclusion

## Strategy and concepts

### Diversity as a success factor

GRI 2-23/-24 GRI 3-3

The Mercedes-Benz Group is committed to tolerance, openness and fairness, and promotes diversity and equal opportunity. With appropriate measures and activities, it wants to foster a working environment in which employees, regardless of their age, ethnic origins and nationality, gender and gender identity, physical or intellectual capacity, religion and worldview, sexual orientation and social origins can freely develop their talents.

This approach is embedded in the Mercedes-Benz Group's Integrity Code and in the [Principles of Social Responsibility and Human Rights](#), for example.

Diversity makes the Mercedes-Benz Group successful. It enables innovative solutions and creative ideas.

[↗ Declaration of Principles](#)

### Strategic fields of action

GRI 2-23/-24 GRI 3-3

Diversity and equal opportunities are parts of the business strategy of the Mercedes-Benz Group. Sustainability, integrity and diversity serve as the foundation of this strategy. As an integral part of the work of the Mercedes-Benz Group, this provides the Group's employees with support and guidance in their daily activities.

[↗ Goals and strategy, AR 2022](#)

Two focal points form the basis for the action areas, activities and measures in the Group's Diversity & Inclusion Management.

The focus of "Diversity" is on promoting a diverse workforce and recognising different perspectives. The main focus of "Inclusion" is to ensure processes and guidelines that provide equal opportunities, and to reduce unconscious biases. It is also important for promoting an appreciative work culture that respects individual needs.

### Strategic fields of action for Diversity & Inclusion



The overarching strategic areas of action for promoting diversity and equal opportunities involve the advancement of women, internationality and equal opportunities. The area of action internationality was newly developed during the reporting year.

### Gender equality

GRI 405-1

The Mercedes-Benz Group would like to fill more senior management positions with qualified women. The target here is to increase the share of women in such positions to 30% by 2030.

The Mercedes-Benz Group set itself the goal of continually increasing the percentage of women in senior management positions as early as in 2006. For Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property Management GmbH & Co. KG, there has also been a general works agreement on the advancement of women since 2006. In this agreement, the Mercedes-Benz Group agreed, among other things, to consistently increase the quota of women in the overall workforce, in vocational training and at **management levels** four and five.

The percentage of women on the Board of Management and the Supervisory Board is presented in detail in the Annual Report of the Mercedes-Benz Group.

[🌐 Declaration on Corporate Governance, AR 2022](#)

### Internationality

The Mercedes-Benz Group also seeks to promote internationality, a global way of thinking and the cultural diversity of its workforce in order to go on being an attractive employer in the future. Cultural diversity also helps the Mercedes-Benz Group to better understand the different customer wishes in the regions and to align Mercedes-Benz products accordingly. In doing so, the Group seeks to bring together various points of view at all levels of the hierarchy and to increasingly recruit international talents.

[↗ Training and professional development](#)

### Inclusion

The Mercedes-Benz Group promotes inclusion and an inclusive working environment. It welcomes and values the uniqueness of each team member. Because only a fair and appreciative environment makes it possible to harness the full potential of a diverse workforce.

The Mercedes-Benz Group also measures the progress made towards more inclusion, among others, via the agreement rate in the employee survey on the “Inclusion Index”. The goal is to increase this figure to over 75% by 2030.

### Active diversity and inclusion management in the Group

GRI 2-23/-24 GRI 3-3

The Mercedes-Benz Group expects its employees to treat one another in a respectful, open and fair manner. Managers serve as role models here and thus have a special responsibility for ensuring a corporate culture marked by appreciation.

The framework and processes here are designed by the Group-wide functions Integrity and Diversity and Inclusion Management, the latter of which is part of Human Resources. They define strategic areas of action in cooperation with the Board of Management of Mercedes-Benz Group AG and initiates overarching projects, training programmes and awareness-raising measures. The exchange with the different departments takes place at regular meetings. A new cooperation model was introduced for this purpose in the reporting year: it includes regular international working group meetings with HR managers from different business units. The aim of Diversity & Inclusion management is to anchor the topic of diversity more firmly in the organisation internationally and to implement the strategic action areas.

All employees can inform themselves in the “Global Diversity Community” in the Social Intranet and enter into dialogue with each other as well as with Group representatives; quarterly exchange formats are also offered for this purpose.

In addition, the Mercedes-Benz Group offers its employees the opportunity to share ideas and become involved via various business resource groups, which contribute significantly to anchoring a culture of diversity and respect and better handling of the concerns of the various interest groups.

The diversity and inclusion management system is grounded in the principle of equal opportunity for all employees. The idea here is to always attract the most highly qualified specialists and managers to the Group

and support their professional development, regardless of their age, ethnicity, gender, sexual orientation and identity, and psychological and physical capability.

### Principles and policies

The Mercedes-Benz Group presented its understanding of diversity and equal opportunity in its “Uniqueness makes us strong” mission statement, which was signed by all members of the Board of Management.

For Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Intellectual Property Management GmbH & Co. KG, the principles of diversity and inclusion are laid down in the general works agreements “Advancement of Women” and “Equal Opportunities”. The topics are also described in the [Integrity Code](#) and in the Group agreement “Fair treatment in the workplace”.

A specific guideline was developed for transgender employees. This guideline clarifies Group policies and the legal framework, describes administrative rules relating to name and gender changes, and lists the relevant points of contact at the Group.

The Mercedes-Benz Group is a member of various initiatives and associations in the field of diversity and inclusion and has subscribed to the corresponding standards and principles:

- [European Women's Management Development \(1999\)](#)
- [UN Global Compact \(2000\)](#)
- [Charta der Vielfalt e.V. \(2006\) \(Diversity Charter\)](#)
- [Global Summit of Women \(2006\)](#)
- [Women's Empowerment Principles \(2013\)](#)
- [UN Standards of Conduct for Business on Tackling Discrimination against LGBTI People \(2018\)](#)
- [HIV Declaration of the German Aids Service Organisation \(2019\)](#)
- [The Valuable 500 \(2020\)](#)
- [Joint Declaration against Sexism and Sexual Harassment \(2021\)](#)

### Dealing with violations of policy

#### GRI 406-1

Mercedes-Benz Group employees who have been victims of discrimination, bullying or sexual harassment, or who observe improper behaviour by colleagues, can report such violations of policy to their supervisors, the HR department, the counselling service, their plant medical services organization, the Works Council or the Management Representative Committee. Additional points of contact include the infopoint integrity and the Group's Business Practices Office (BPO) whistleblower system. The BPO is responsible for violations of laws and regulations, which pose a high risk to the Mercedes-Benz Group or its employees – both on a personal level (for example sexual harassment, discrimination or racism) and in material terms (for example corruption, anti-trust law or money laundering offences).

#### ↗ The Whistleblower System BPO

An external online counselling platform was established in the reporting year to supplement these internal points of contact in this area. Mercedes-Benz Group employees in Germany can use the platform to obtain information on sexual harassment, discrimination and bullying. They can also use an anonymous chat function to obtain advice. The platform, which is initially available in Germany, is intended to support preventive activities at the Mercedes-Benz Group and help increase awareness of the various issues among employees.

## Measures

### Promoting diversity and inclusion

The Mercedes-Benz Group utilizes various measures to make employees around the world more aware of issues relating to diversity and equal opportunities. These include, among other things, awareness-raising and qualification programmes, information events and special mentorship programmes for women. The Group also recognises the diverse life situations of its employees with modern and attractive working conditions.

#### ↗ Modern and attractive working conditions

## Measures for gender equality

At the Mercedes-Benz Group, the advancement of women begins with the promotion and recruitment of young talents: it participates in career information days and the “Genius” education initiative and has a presence at university fairs. The aim is to inspire girls and women to take up technical professions and to foster the next generation in MINT professions.

In order to attract women to undergo vocational training at the Mercedes-Benz Group, the Group has joined forces with the works council to develop and define a series of measures: For example, in 2022, the Group invited schoolgirls to become acquainted with the technical vocational training programmes of the Mercedes-Benz Group in several formats.

Role models are important for career choice and development. In recent years, the Mercedes-Benz Group in Germany has also been able to continuously recruit female vocational trainers for technical professions.

In addition, the Mercedes-Benz Group offers special mentoring programmes – also to specifically prepare women for management positions and to achieve its self-designated targets for the representation of women in management positions. For example, Mercedes-Benz AG has set up the mentoring programme “Bertha’s Daughters”. Special women’s advancement programmes are offered internationally and regionally for managers and staff with management potential.

In the reporting year, for example, the Mercedes-Benz Group organised an information event on entry-level positions aimed specifically at young female talents and managers in the production environment.

## Promoting cultural diversity and internationality

168,797<sup>1</sup> people from 143 nations work in the Mercedes-Benz Group. The cultural diversity of the workforce helps the Group to better understand the regionally different customer wishes and to align its products accordingly. At the same time, the Mercedes-Benz Group promotes the intercultural skills of its employees through training and relies on targeted recruiting of

international talent – for example within the framework of the various talent programmes.

### ↗ International talent programmes

The Mercedes-Benz Group encourages its employees to take on international assignments. In the reporting year, around 1,200 employees from about 35 nations were active internationally. The Global Mobility Policy, which was developed for the purpose, is used among other things to adequately support the Assignees.

In the reporting year, the sales and marketing organisation also introduced various job exchange programmes to facilitate short- and medium-term international assignments. These international exchange programmes are to be continuously expanded.

## Integrating employees with disabilities

Employees with disabilities are an important and fully integrated part of the diverse workforce at the Mercedes-Benz Group. The Group places special emphasis on the vocational training of young people with disabilities. In addition, it promotes the integration of employees with disabilities in production and administration in certain areas, for example, through specially equipped workplaces. In Germany, the representatives of severely disabled persons and the Group’s inclusion officers also promote the interests of severely disabled employees.

As of the closing date 31 December 2022, 7,046 severely disabled employees and employees treated as such were working throughout the Group in Germany. Overall, 41 trainees with severe disability were hired in the past 2 years in Germany.

## The “age” diversity dimension

### GRI 404-2

The average age of employees of the Mercedes-Benz Group worldwide was 42.4 years in 2022. The demographic transformation is also leading to a situation where people continue to work longer than before. The average age of employees is therefore expected to rise in the coming years. The Mercedes-Benz Group sees this development as an opportunity.

It therefore creates suitable framework conditions, with measures that promote the performance and health of younger and older people.

<sup>1</sup> As of 31.12.2022, headcounts: Workforce excluding holiday workers, diploma students, interns, temporary student employees, PhD students, senior experts and trainees.

The Mercedes-Benz Group also seeks to reinforce the cooperation between the generations. Other focal points are “lifelong learning” and “age-independent further education” for employees.

### ↗ New training and learning opportunities for employees

In addition, the Mercedes-Benz Group draws on the expertise of experienced employees who have already retired, for example, at Mercedes-Benz Group AG and Mercedes-Benz Bank AG, including subsidiaries in Germany: Within the framework of the “Senior Experts” programme, experts who have retired due to age can contribute their knowledge in project assignments for a limited period of time.

Since 1998, the Mercedes-Benz Group has offered employees partial retirement for older workers who wish to retire earlier. This allows them to make a smooth transition from working life to retirement.

### Supporting the rainbow community

“Everyone different. All equal.” Under this motto, employees and managers of the Group demonstrate an inclusive attitude. In close cooperation between the Mercedes-Benz Group and the employees of the LGBTIQ+ networks, the Mercedes-Benz Group promotes dialogue within the Group with the “Mercedes-Benz Pride” initiative and advocates an accepting approach to sexual orientation and gender identity in everyday working life. The Pride activities are supported by employees who demonstrate their commitment alongside their normal working activities.

In 2022, the Mercedes-Benz Group took part in Pride parades in various countries, and also supported local Pride or “Christopher Street Day (CSD)” organising associations in the form of sponsorships.

### Awareness-raising and training activities for employees

Since 2021, the Mercedes-Benz Group has been using an e-learning tool that aims to increase awareness of the need for appreciative interaction as well as possible obstacles, and to show how each employee can contribute to this development. This training tool is available to employees worldwide and is offered in 11 languages. It is supplemented by a discussion guideline

with which the individual learning aspects can be tried out and developed further within a team.

The Mercedes-Benz Group also uses its internal communication channels to raise awareness of important issues. For example, the company launched a communication campaign in Germany to accompany the introduction of the new online counselling platform that offers information and anonymous support to employees who have experienced or are aware of cases of sexual harassment, discrimination or bullying. The campaign used a variety of in-house media to remind all employees to treat one another with respect.

### Diversity Day

Each year, the Group devotes a day specifically to diversity: the Mercedes-Benz Group’s Diversity Day. Consciously experiencing diversity, taking in new perspectives and understanding how all employees can profit from diversity and inclusion — these are central objectives of the Mercedes-Benz Group.

Diversity Day took place for the tenth time in the reporting year. The strategic fields of action “Gender Equality”, “Internationality” and “Inclusion” were presented during a virtual Mercedes-Benz dialogue with the Members of the Board of Management responsible for HR and Production & Supply Chain Management. During the event, employees were invited to discuss various topics and ask questions. Several thousand employees from over 40 countries participated. Diversity Day was also used as an occasion to conduct other local diversity-related activities around the world.

### Cooperation with external partners

The Mercedes-Benz Group is a co-initiator and founding member of the German employer initiative “Charta der Vielfalt e.V.” or “Diversity Charter”. This association promotes the discussion on diversity & and inclusion management in Germany through various projects – for example with the Diversity Day.

In the reporting year, the Mercedes-Benz Group was once again a partner of the “DIVERSITY Conference”. Since 2012, this event has been organised by Charta der Vielfalt e.V. (Diversity Charter) and the publishing house “Der Tagesspiegel”.

Furthermore, a delegation from the Mercedes-Benz Group again took part in the “Global Summit of Women” in the reporting year. The head of Human Resources and Labour Policy and HR Services” gave a talk there, followed by a panel discussion on the topic “Health is Wealth: How Well-Being is Key to Business Success”.

## Inclusion beyond company boundaries

### GRI 3-3

In addition to the already mentioned external partnerships, the Mercedes-Benz Group also encourages its business partners and suppliers to champion equal opportunity: the Business Partner Standards are aimed at business partners worldwide. The Mercedes-Benz Group uses these to explain its ethical principles, which include diversity and inclusion, and its expectations of business partners in this respect. In addition, the Mercedes-Benz Group has summarised all the sustainability requirements it places on its suppliers in its Responsible Sourcing Standards, which contain requirements on “working conditions”, “respect for human rights”, “environment and safety” and “business ethics and compliance”.

### ↗ Requirements for suppliers

The Mercedes-Benz Group also values the individuality of its customers and develops products and services that meet their individual needs.

Among other things, Mercedes-Benz AG offers people with disabilities driving aids as special equipment (SA) ex factory. These include for example hand controls for accelerator and brake, control and steering aids as well as swivel seats or seat relocation. Appropriate solutions are also being offered for the new all-electric model series such as the EQE, as well as in more and more market segments and regions, in order to make self-determined individual mobility accessible to the disabled.

### Networking initiative for women

With the international “She’s Mercedes” initiative, the Mercedes-Benz Group enters into an intensive dialogue with women worldwide in order to address their mobility needs in a more targeted manner. Launched in 2015 for the “International Motor Show (IAA)”, this initiative pursues the basic idea of networking, exchange and dialogue in over 70 countries. “She’s Mercedes” offers women opportunities to expand their own network, inspire each other and get to know the Mercedes-Benz brand.

## Effectiveness and results

### Effectiveness of the management approach

#### GRI 3-3

The Mercedes-Benz Group considers it important to make its approach to diversity measurable by means of quantitative key indicators so that it can identify areas where action must be taken as needed. In doing so, the Group is guided by the Sustainable Development Goals (SDGs) “Gender Equality” (SDG 5) and “Reduced Inequalities” (SDG 10).

The Mercedes-Benz Group uses relevant data from its human resources reporting systems to review the progress made in increasing the proportion of women in top management positions. The results are reported to the Board of Management of the Mercedes-Benz Group AG in a standardized form on a regular basis.

The Mercedes-Benz Group measures inclusion and fairness by means of the “Inclusion Index”, which it collates every two years as part of the employee survey.

## Results

For the “Inclusion Index”, the Mercedes-Benz Group asks its employees whether they agree with the following statement: “Everyone at this company is treated fairly regardless of ethnic background, race, gender, age, disability, or other differences not related to job performance”. The Index indicates the percentage of positive answers. No employee survey took place in the reporting year. The survey conducted in the previous year showed a positive interim status for the Inclusion Index at the Mercedes-Benz Group. The interim goal of increasing the index to 70% by 2025 has already been achieved. By 2030, the Mercedes-Benz Group aims to achieve a value above 75%.

As early as 2006, the Mercedes-Benz Group set itself the target of continuously and sustainably increasing the proportion of women in executive positions (Level 3 and higher) worldwide to 20% by the end of 2020. This goal was achieved and the Board of Management of Mercedes-Benz Group AG therefore decided during the reporting year to further increase the proportion of women in executive positions at the company to 30% by 2030.

As of 31 December 2022, women occupied 24.7% of the senior management positions at the Mercedes-Benz Group worldwide<sup>2</sup>.

At the end of 2022, the Board of Management of Mercedes-Benz Group AG consisted of three women and five men – resulting in a share of women of 37.5%. The composition of the Board of Management and the Supervisory Board is disclosed in detail in the Annual Report.

[🌐 Declaration on Corporate Governance, AR 2022](#)

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<sup>2</sup> Headcounts, fully consolidated companies

# Key figures

## Female workforce<sup>1</sup>

**GRI 405-1**

	<b>2021<sup>2,3</sup></b>	<b>2022<sup>2,3</sup></b>
Europe	28,379	<b>28,093</b>
NAFTA	3,353	<b>3,992</b>
Latin America	278	<b>256</b>
Africa	1,382	<b>1,090</b>
Asia	2,719	<b>2,920</b>
Australia/Oceania	206	<b>224</b>
<b>Total</b>	<b>39,317</b>	<b>36,575</b>

1 Workforce excluding holiday workers, diploma students, interns, temporary student employees, PhD students, senior experts and trainees.

2 These data cover the Mercedes-Benz Group.

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

## Female workforce by groups<sup>1,2</sup>

**GRI 405-1**

	<b>2021</b>	<b>2022</b>
Direct functions (production employees)	7,528	<b>8,091</b>
Indirect functions (administrative employees & employees production-related)	28,789	<b>28,484</b>
Trainees	1,042	<b>919</b>
Interns/diploma students/PhD students/ temporary student employees/senior experts	1,511	<b>1,671</b>
Holiday workers	16	<b>5</b>

1 These data cover the Mercedes-Benz Group.

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

## Female workforce<sup>1</sup>: other key figures (in %)

**GRI 405-1**

	<b>2021<sup>2,3</sup></b>	<b>2022<sup>2,3</sup></b>
Proportion of women	21.1	<b>21.7</b>
Proportion of women in executive management positions of levels 1 to 3	22.5	<b>24.7</b>
Proportion of women on the Board of Management	37.5	<b>37.5</b>
Proportion of women on the Supervisory Board	30.0	<b>35.0</b>

1 Workforce excluding holiday workers, diploma students, interns, temporary student employees, PhD students, senior experts and trainees.

2 These data cover the Mercedes-Benz Group.

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

# Occupational Health and safety

## Strategy and concepts

### Occupational health and safety management

GRI 3-3

The Mercedes-Benz Group wants to ensure its employees can work in a safe and healthy environment.

Whether it's ergonomic workplace design, health maintenance programmes or occupational safety training, the Group's overarching goal is to avoid health risks and maintain its employees' health over the long term. Because only satisfied and healthy employees can realise their full potential – and thus contribute to the success of the Mercedes-Benz Group.

The COVID-19 pandemic is not the only reason why it is so important to have a sustainable occupational health and safety management system in place. The demographic transformation and advances in technology are also associated with new challenges. The Mercedes-Benz Group thus utilizes a holistic occupational health and safety management system that also includes a quality management system. The focus here is mainly on preventive measures that it continuously reviews and develops further.

During the year under review, the Mercedes-Benz Group strategically realigned its occupational health and safety management system and defined new objectives and targets. Among other things, well-being was added as an additional strategic area of action and defined within the Group for the first time. In line with the definition, the topic is divided into the areas of emotional, physical, social and financial well-being, to which in-house offers aimed at the employees were assigned.

### Requirements and policies

GRI 2-23/-24 GRI 3-3 GRI 403-1/-8

The Mercedes-Benz Group's occupational safety strategy includes standards for the design of workplaces and work processes. The goal here is to systematically

reduce occupational and health-related risks. The Mercedes-Benz Group operates on the basis of globally uniform guidelines for risk prevention. The Group's occupational health and safety policy, which includes the Minimum Standards for Corporate Health & Safety, as well as the occupational health and safety guidelines that are defined in a Group-wide agreement, serve as overarching, internationally valid regulations. All of these policies, as well as all applicable laws in each country where the company operates, must be complied with (in Germany, among others, the Occupational Health and Safety Act and Provision 1 of the German Statutory Accident Insurance). The internal guidelines are all based on international standards and national laws and emphasize the managers' obligation to act responsibly. Moreover, they underscore the employees' own responsibility. In Germany, there is a supplementary occupational health and safety management policy which regulates cross-location cooperation.

The international corporate policy on occupational health and safety bindingly describes tasks, duties, necessary bodies and communication requirements for all controlled and consolidated Group companies. This policy calls for the creation, operation and continuous improvement of an occupational health and safety (OHS) management system, which is substantively based on the ISO 45001 standard. Various locations are voluntarily having their OHS management system certified by external companies in accordance with the ISO 45001 standard. The standards for safe performance of work described in these specifications also apply to external companies and their employees. The Mercedes-Benz Group regularly checks whether external companies comply with these requirements – in some cases several times a year.

In 2022, all the policies and requirements for occupational health and safety were reviewed and amended by the individuals responsible for the documents as needed. For example, the guideline on the handling of

lithium-ion batteries and the procedural instruction “Accident processing by managers in the event of company accidents with lost days” was rewritten.

## Organisation and areas of responsibility

GRI 3-3 GRI 403-2/-3/-4

Occupational health and safety issues throughout the Group are managed by the Health & Safety unit, which is part of Human Resources and under the direction of the Chief Physician at the Mercedes-Benz Group in Germany. The Health & Safety unit is divided into six centres of competence: “occupational safety”, “medicine”, “health management”, “ergonomics”, “social counselling” and “catering”. Each centre controls the processes by means of Group-wide policies which are continuously updated.

The respective occupational health and safety goals of the locations are based on an overall strategy, which contains the guiding principles of occupational health and safety, as well as the occupational health and safety strategy of the Mercedes-Benz Group and the results of audits and reviews.

At each location, the Mercedes-Benz Group has established corresponding committees for occupational health and safety in which employees can participate. Managers are responsible for ensuring that all internal policies and legal provisions on occupational health and safety are observed. The Health & Safety unit supports managers in the implementation of their obligations with regard to occupational health and safety. Each location defines the responsibilities and specific obligations in line with the local conditions.

Mercedes-Benz Group employees bear personal responsibility for health and occupational safety by carrying out their work in a safety-conscious manner. Employees have the right to withdraw from work situations in which they can reasonably assume an immediate danger to their lives or health. Safety risks and near-accidents must be reported to the manager on a location-specific basis. These are dealt with in the regular meetings in production and administration ([Shopfloor Management](#)). The Mercedes-Benz Group records information on occupational accidents and risks by means of its accident documentation systems.

Occupational health and safety issues are also discussed on a regular basis in various committees, such as the Occupational Safety, Environment and Health Commission, as well as with works council representatives and representatives of the Group. In addition, the corporate medical director and the head of corporate Group safety report to the Member of the Board of Management responsible for Human Resources on a quarterly basis.

## Handling of COVID-19

In order to curb the spread of Covid-19, employees at Mercedes-Benz Group sites were provided with information on various measures and rules. In Germany, they were put into effect in connection with the Infection Protection Act. During the reporting year, the Group repeatedly reviewed and refined its hygiene strategy, which is based on risk assessment. Among other things, this strategy was modified in response to changes to the legal framework and pandemic-related developments.

As early as 2020, the Mercedes-Benz Group expanded its global accident documentation system to include an emergency documentation module for recording Covid-19 cases. This module includes an integrated digital reporting process for infections that enables the rapid documentation of all Covid-19 cases among the employees and thus a fast follow-up of possible contacts by the plant medical service and managers. By mapping chains of infection, the Mercedes-Benz Group was able to contribute to the reduction of the spread of COVID-19 within the Group. The new module for crisis situation documentation helps the Mercedes-Benz Group to respond faster and in a more targeted manner to unforeseen events such as another pandemic in the future.

In addition, the Mercedes-Benz Group supports research and science in order to promote acquisition of knowledge and to be able to facilitate the implementation of effective and sustainable measures.

## Risk management

GRI 403-2/-7

The Mercedes-Benz Group wants to prevent its employees from experiencing accidents or impaired health. The Health & Safety unit is therefore pursuing a

preventive approach and assesses the potential risks of workplaces and work processes at an early stage. The Health & Safety unit operates a safety risk management system at the Group's own production plants that is aligned with the Group's Policy on Occupational Health and Safety. Health & Safety also defines instruments and risk assessment processes that are implemented at the local level.

In addition, a standardized procedure is used to determine whether the Group policy regarding occupational health and safety has been duly implemented throughout the organization. To this end, each site that employs more than 500 people or has a corresponding risk level is visited and evaluated approximately every five years.

Risk assessments are carried out in the following areas, among others:

- Safety and accident management
- Risk of hazardous tasks
- Risk of fire and explosion
- Risk of hazardous machinery & equipment

### **Digital risk assessment**

Risk assessments are an important tool with which the Mercedes-Benz Group evaluates potential risks. The Mercedes-Benz Group is digitalizing parts of this risk management process using an online tool that is being made available all over the world. The tool is provided by the European Agency for Safety and Health at Work (EU-OSHA) and was expanded for the company's purposes. It shows the specific risks that can arise in a particular area of responsibility. The user then only needs to decide whether the suggested measures suffice to reduce the risk to an acceptable level. On this basis, the user then only needs to decide whether the suggested measures suffice to reduce the risk to an acceptable level. This risk assessment is then used as a basis for automatically generating instruction documents.

### **Uniform assessment of risks**

The Mercedes-Benz Group assesses the risks of new facilities worldwide along the entire process – from the tendering to the acceptance stage – in a uniform manner and in accordance with defined criteria. The basis for this is provided by the Group's safety concepts, which are implemented by the suppliers in accordance with the company's specifications. Occupational safety experts support the planning departments from the initial idea to the standardised acceptance process for working equipment. Hazardous materials are evaluated and approved in the course of the risk assessment. The Mercedes-Benz Group also assesses the mental and ergonomic stress caused by workplaces and the respective working environment.

The Mercedes-Benz Group has integrated a contractor management process that includes an assessment of mutual hazards, including defined measures, as a fundamental component. These measures are then monitored by means of random checks. In addition, an instruction video teaches external companies about topics of relevance to occupational safety. Moreover, risk assessments for cooperation with external companies as well as control measures are digitised and mapped in the Mercedes-Benz Group's tool for risk assessments.

## **Measures**

### **Company health management and mental health**

#### **GRI 403-3/-5/-6**

The Mercedes-Benz Group offers their employees in Germany occupational health advice and screening as well as measures and services from the company's own health programme and social counselling service. The Mercedes-Benz Group wants to promote both the mental and physical health of its employees with its company health management system in Germany. This objective is promoted with the help of campaigns, counselling and qualification offerings, as well as with preventive, therapeutic and rehabilitation measures. In 2021, a Group agreement on mental health in the workplace was reached for Germany between the works council and the Group management with the goal of maintaining and promoting the employees' mental health. Internationally, the Mercedes-Benz Group

focuses on medical care and the coordination of pandemic-related measures and prevention strategies as well as ergonomics.

Preventive approaches are at the heart of health management at Mercedes-Benz Group AG, Mercedes-Benz AG and Mercedes-Benz Mobility AG – from job-related health checks and ergonomic workplace design to an IT system that facilitates the reintegration of employees with chronic ailments.

The Mercedes-Benz Group is continuously expanding the digitalisation in health management: It aims to make new digital formats available to its employees whenever possible and to expand the existing offerings. This will enable the appropriate services to be provided to employees anytime and anywhere.

### **Medical and psychosocial support**

At the Mercedes-Benz Group, occupational medical care includes programmes and measures for the prevention of work-related illnesses and occupational diseases, as well as for the promotion of health in the workplace. In order to identify health risks at an early stage, it offers voluntary preventive medical check-ups for employees and managers worldwide that go beyond the legal requirements. This includes the “Mercedes-Benz HealthCheck” with integrated health counselling reintroduced in Germany at the end of 2022. Many comparable offers can be found at the international locations of the Mercedes-Benz Group.

Furthermore, the Mercedes-Benz Group offers all employees acute and emergency medical care as well as psychosocial care – this also includes immediate care for accident victims as well as emergency care for business travellers, employees on foreign assignments and their relatives abroad. This service is available 365 days a year, 24 hours a day. All employees can use the company medical services, the social counselling service and the basic services of the company health promotion programmes. The basic offers of occupational health promotion as well as acute and emergency medical care are also available to the Group's temporary employees.

The in-house social counselling service advises and supports managers and employees of the Mercedes-Benz Group in Germany who find themselves

in a challenging situation of change or crisis at work or in their private lives, or who are suffering from psychological problems or struggling with conflicts. This also includes counselling in cases of bullying, sexual harassment or discrimination in the workplace. Temporary employees in Germany as well as the employees' relatives can also take advantage of the offer. In addition, the social counselling service offers departmental workshops and coaching and training for managers. The social counselling service operates locally in the plants as well as online and by telephone. Its services are confidential and subject to the legal duty of confidentiality.

### **Measures related to COVID-19**

The Mercedes-Benz Group continues to raise awareness among its employees worldwide and to point out the specific measures and requirements for infection protection.

Since October 2022, the company medical services have been offering booster shots (third and fourth vaccinations) with the newly updated Omicron vaccine. Vaccination offers were also made to employees at foreign locations.

### **Staying healthy**

The Mercedes-Benz Group wants to help its employees to adopt healthy lifestyles and reinforce their sense of personal responsibility with respect to their health. All German production locations and numerous international locations have health centres on the premises, or cooperate with nearby health centres.

In these health centres and with cooperation partners, employees can for example take preventive action to avoid back and joint problems and receive physiotherapy treatment. In target group-specific training sessions, managers can observe their own health-related behaviour and develop a health-oriented management style. The measures developed by the company health care unit are scientifically monitored and evaluated.

### **Working safely and ergonomically**

The Mercedes-Benz Group has defined an ergonomics strategy in a general works agreement. The strategy encompasses the following principles and goals:

- Continuously optimise new and existing workplaces with regard to health aspects
- Preserve the health and performance of employees
- Assign employees in line with their respective profiles and skills
- Reduce the number of musculoskeletal disorders through prevention
- Managers take responsibility for the health of their employees

In order to implement these principles and goals, the Mercedes-Benz Group focused on the following fields of action and measures in the reporting year:

- Publication of an action guideline: summarised overview of the ergonomic requirements that must be fulfilled in order to meet the legal requirements, as well the requirements of the Group
- Inform and train employees with planning tasks on the topic of workplace design and managers on the topic of ergonomics
- Ongoing redesign and improvement of workplaces that are not yet ergonomically optimal

With the aid of an IT system, the Mercedes-Benz Group evaluates the ergonomics of its workplaces. The system makes use of data that are relevant to the workplace. All newly created workplaces are already assessed by the Mercedes-Benz Group in the planning phase. In this way, it seeks to identify and avoid ergonomically risky workplaces. In addition, it creates job profiles that enable it to deploy employees with impairments according to their abilities.

## Raising awareness of occupational safety

### GRI 403-5

The Mercedes-Benz Group uses media such as videos, various information portals and online training courses to increase its employees' awareness of ergonomics and occupational safety issues. It provides new employees with initial instruction regarding the safety-relevant aspects of their workplaces. They are subsequently

required to participate in safety-awareness briefings that are held on a regular basis. The Mercedes-Benz Group has also developed special online training courses for certain work areas, for example, for the safety briefing of office employees.

The Corporate Safety unit offers Group-wide training for certain employee groups. These include employees who use the software for ergonomic assessment, as well as employees in the various planning areas for the legally compliant procurement and planning of work equipment with due regard for occupational safety. In addition, Corporate Safety regularly trains the analysis teams comprised of occupational health physicians, safety experts and works council members on carrying out the "risk assessment of mental strain" method at the German locations, as well as the international auditors on carrying out the "safety site evaluation".

Furthermore, the Mercedes-Benz Group has maintained a health & safety information platform on the Social Intranet since 2018, which it updates regularly. This is where employees find all the essential information and rules regarding "health and safety at work".

## Reinforcing the safety culture

### GRI 403-4 / 5 / 7

The Mercedes-Benz Group launched a new project known as "We Work SAFE!" during the reporting year. The goal here is to establish a sustainable culture of safety that will lead to a long-term reduction in the number of work accidents. Various working groups are developing measures that will raise employees' awareness of the importance of this issue. These measures include the Principles of Safety at Work that apply throughout the Group. The project also makes intensive use of internal communication channels and training programmes promoting a culture of safety. Reporting channels are also being further standardized and digitalized.

## Healthy diet

Diet has an influence on health. As Mercedes-Benz Gastronomie GmbH is part of the Health & Safety unit, the respective specialists can work closely together here. In addition to promoting a healthy and varied menu, the focus is on reducing CO<sub>2</sub> emissions.

Since 2020, a simple traffic light system has already been showing employees in Germany which foods have a very good, fairly good or not so good nutritional value. Since 2021, there has also been a “feel-good” menu in all cafeterias operated by Mercedes-Benz Gastronomie GmbH, which mainly contains foods with a green rating according to the traffic light system. In the same year, a purely vegan line of foods was incorporated into the menu. In addition, the CO<sub>2</sub> footprint of the dishes is disclosed since 2022. Mercedes-Benz Gastronomie GmbH has also implemented further measures: for example, there are more low-fat dishes, the proportion of vegetables in dishes has been increased, the food is prepared in a more healthy way, and the time allowed for keeping the dishes warm has been reduced. In addition, regional and seasonal foods are increasingly used.

#### ↗ Waste and CO<sub>2</sub> emissions in the catering sector

## Effectiveness and results

### Effectiveness of the management approach

GRI 3-3 | GRI 403-1/-2

The Mercedes-Benz Group's sense of social responsibility is reflected in its operation of a sustainable health and occupational safety management system. It endeavours to prevent occupational accidents, work-related ailments and occupational illnesses wherever possible.

An effective reporting procedure helps the Mercedes-Benz Group achieve its occupational health and safety targets. That is why all locations are required to report accidents and accident statistics to the Health & Safety unit. The Group has an accident documentation system at its disposal, from which it can derive standardised key figures – in compliance with valid data protection regulations. Based on these key figures, the Mercedes-Benz Group produces monthly reports showing the Group-wide accident figures.

### Results

GRI 403-6/-8/-9/-10

In connection with the COVID-19 pandemic, the goal in the reporting year continued to be to contain the spread of the virus and maintain business operations. Various measures, which include safety and hygiene rules, testing strategies and offers of vaccination in connection with Covid-19, have been implemented in

an attempt to protect employees as well as possible.

Thanks to these measures, it was possible to reduce in-house infections to a minimum. From June 2021 to December 2022, around 81,000 initial and booster vaccinations were given at the locations in Germany.

Around 45,000 employees were reached digitally by means of offerings on various topics of workplace health promotion in 2022. For 2023, the Mercedes-Benz Group plans to embed the subject of Awareness in the health management using new training offers and initiatives.

During the reporting year, the Sindelfingen site obtained the voluntary ISO 45001 certification of its management system for the first time. Irrespective of any external certification audits, the Mercedes-Benz Group reviews the safety standards at its own production locations about every five years to check whether they comply with the standards of the binding corporate policy concerning occupational health and safety and whether a functioning occupational health and safety management system (OHSMS) is in place. During the reporting year, the Mercedes-Benz Vans production sites in Düsseldorf and Ludwigsfelde (both in Germany), Vitoria (Spain), Ladson (United States) and Buenos Aires (Argentina) were evaluated as planned.

From the accident documentation, the Mercedes-Benz Group is able to identify, among other things, the causes and major types of accidents as well as the activities or equipment that caused the accidents. An effective reporting procedure helps the Mercedes-Benz Group achieve its occupational health and safety targets. In addition to its German accident documentation system, the Mercedes-Benz Group introduced an accident documentation system in 2019 that international sites and subsidiaries can use to report accidents. The Mercedes-Benz Group uses the figures provided by the system to produce monthly reports on Group-wide accident statistics in line with applicable data protection regulations. During the reporting year, the Mercedes-Benz Group's production sites had an accident frequency of 4.8.<sup>12</sup> Every accident is analysed in order to determine the sequence of events.

1 Number of work-related accidents that resulted in at least one lost day per 1 million hours of attendance

2 The key figure was audited in order to obtain limited assurance.

The affected units are also required to initiate preventive measures. Data on accidents from which other sites can learn and derive measures is sent to all occupational safety experts at all locations worldwide.

In addition to the German accident documentation system, the Mercedes-Benz Group introduced a system in 2019 that enables the international locations and subsidiaries to report accidents. In the year under review, preparations were also made for the application of the international accident documentation system at the German sites. The aim is to use a uniform system worldwide starting in 2023.

# Key figures

## Accident frequency<sup>1</sup>

GRI 403-9

	<b>2021<sup>4</sup></b>	<b>2022<sup>4</sup></b>
Workplace accidents <sup>2</sup>	1,277	<b>1,171</b>
Accident frequency <sup>3</sup>	5.5	<b>4.8<sup>5</sup></b>

1 Recording rate Mercedes-Benz Group production locations: >99%.

2 Number of all occupational accidents with at least one day of absence reported in the Mercedes-Benz system.

3 Number of all occupational accidents reported in the Mercedes-Benz system with at least one day of absence per 1 million hours of attendance.

4 Due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company, these data are adjusted, still contain some minor uncertainties because so-called hybrid locations and divisions can only be adjusted for accounting purposes starting with the 2022 business year.

5 The key figure was audited in order to obtain limited assurance.

## Participants in health training<sup>1</sup> (6-day training on the subjects of exercise, nutrition & relaxation)

GRI 403-5/-6

	<b>2021<sup>2</sup></b>	<b>2022<sup>2</sup></b>
Shift workers	_3	<b>270</b>
Managers	_3	<b>258</b>
Executives	_3	<b>172</b>

1 Mercedes-Benz Group AG and Mercedes-Benz AG

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

3 Due to the pandemic, the health programmes were suspended in 2021.



Sustainable urban mobility

## Materiality and goals

GRI 3-3 | GRI 203-1

Target	Target horizon
Improve traffic safety for all road users in urban areas	Ongoing
Make the flow of traffic in cities more efficient and optimise resource and infrastructure requirements	Ongoing
Expand sustainable mobility through the expansion of charging infrastructure and cyclical use concepts for transport systems	Ongoing

The majority of the world's population already lives in towns and cities. According to a United Nations forecast, the share will be almost 70% by 2050. This has consequences for the volume of traffic and quality of life in the city: a clever mobility mix, the further expansion of electric mobility and other types of zero-emission drive, plus solutions for the more efficient transport of goods are therefore more important than ever.

The goal of the Mercedes-Benz Group is not only to counteract the negative effects of urbanisation.

Rather, the Group wants to further improve the quality of life in cities with sustainable mobility and transport solutions. Electric mobility is a key lever in this regard – but not the only one. A comprehensive [electric mobility ecosystem](#) of products, services, technologies and innovations is needed.

The Mercedes-Benz Group is facing up to these challenges and is already shaping the transport revolution of tomorrow with intelligent mobility solutions.

# Mobility for liveable cities

## Strategy and concepts

### Urban mobility

An integral part of the sustainable business strategy of the Mercedes-Benz Group is the field of action “Sustainable urban mobility”. For this field of action, the Group has set itself the goal of helping cities and their residents, as well as entire regions and individual neighbourhoods, with their requirements in the areas of “safety”, “sustainability” and “efficiency of mobility”.

Mobility is context-based: the Mercedes-Benz Group believes that there is a suitable mobility solution for every situation. To make it possible to offer this, the Group wants to further develop and repackage existing products, while also developing new concepts. The Urban Mobility Solutions division was founded in 2019 with this goal in mind. This unit is part of the Mercedes-Benz AG Board of Management Marketing & Sales division and deals with questions of urban mobility for the whole Mercedes-Benz Group AG. One of the tasks of the Urban Mobility Solutions unit is to exchange ideas with cities and their citizens on a continual basis in order to better understand their mobility requirements.

Partnerships are essential for identifying and addressing new ideas and trends in the area of urban mobility at an early stage. The Urban Mobility Solutions teams therefore work closely with representatives of cities, partners from industry, planning and research experts, and other Mercedes-Benz business units. Through this work, Mercedes-Benz Group AG hopes to open up new business areas, further develop its portfolio and prepare the Group for future developments in urban passenger and freight transport.

[↗ Engagement in sustainability initiatives](#)

### Three mobility requirements

To make mobility in cities safer, more efficient and more sustainable, the Urban Mobility Solutions division is addressing the following three mobility requirements:

#### **Making urban traffic safer**

To increase the safety of all road users and improve the flow of traffic, the Mercedes-Benz Group provides cities with extensive vehicle data available to cities – with the consent of the vehicle users. In this way, it aims to help those responsible for infrastructure and road safety to make data-based decisions.

[↗ Analytics for greater road safety in the Netherlands](#)

#### **Avoiding emissions, conserving resources**

To make sustainable mobility possible, the Mercedes-Benz Group is focusing on fully electric vehicles, pushing the expansion of the necessary charging infrastructure and contributing to the circular economy. In addition, the Mercedes-Benz Group advises cities on the development of cyclical usage concepts for their transport systems.

#### **More stress-free and more sustainable city traffic**

Avoiding traffic jams, optimising the search for parking spaces and reducing operating costs – by creating holistic mobility systems and seamlessly integrating its vehicles into them, the Mercedes-Benz Group aims to provide every road user with a stress-free journey through the urban environment. To this end, the Mercedes-Benz Group is developing flexible systems that are specially optimised for urban traffic and adapt to the dynamics of cities. The Group is also supporting various stakeholders in developing specific mobility solutions for entire cities or individual neighbourhoods.

Furthermore, the Urban Mobility Solutions division is working on new data products for parking data analysis, among other things. Cities and municipalities are potential customers. The products are intended to help increase transparency and efficiency in the management of public parking space. During the reporting period, Urban Mobility Solutions engaged in dialogue with various real estate developers in the USA in order to advise them on the development of mobility concepts for their neighbourhood construction projects.

## Strategic investments

The Mercedes-Benz Group acts as a strategic investor in the growing market for urban mobility services via Mercedes-Benz Mobility AG. For example, Mercedes-Benz Mobility AG and the BMW Group hold equal stakes in the joint ventures FREE NOW and CHARGE NOW. FREE NOW operates as a mobility platform; CHARGE NOW has its business field in the area of charging electric vehicles. The energy company BP has been a third shareholder in CHARGE NOW since 2021. In the car sharing business, Mercedes-Benz Mobility AG and the BMW Group also operated the joint venture SHARE NOW. It was sold in mid-2022.

## Mobility services are an important pillar of the transport transformation

The mobility services FREE NOW and CHARGE NOW can help to make mobility in the city more sustainable.

FREE NOW has set itself a clear goal with its sustainability strategy “Move to Net Zero”: 50% of journeys are to be fully electric by 2025 and local emissions reduced to zero by 2030. In this way, “FREE NOW” aims to become the first mobility platform in Europe to achieve net zero CO<sub>2</sub> emissions by 2030 in all major European markets. Since early 2020, FREE NOW has also been retroactively offsetting all residual CO<sub>2</sub> emissions – not only for itself as a company but also for associated services. Since 2019, the initiated transformation of the fleet to more low-emission vehicles has already generated savings of 21,028 t of CO<sub>2</sub>.

Within the reporting period, FREE NOW again doubled the number of journeys with an electric vehicle in all markets, with a fivefold increase recorded in the UK, Germany and Spain. In addition, the mobility platform has integrated access to more than 200,000 new e-scooters, e-bikes and electric car-sharing vehicles into its app by working with additional partners. This makes FREE NOW the mobility platform with the largest selection of vehicles in Europe.

Behind the brand CHARGE NOW with its charging solutions for car manufacturers and fleet operators is [Digital Charging Solutions GmbH](#), one of the most important global drivers of the transformation to electric mobility. Among other things, the company provides the charging service for Mercedes me Charge.

With more than 400,000 charging points in 31 countries, it offers access to the largest charging network in Europe, in addition to the charging infrastructure of more than 1000 business partners. Digital Charging Solutions GmbH has set itself the goal of gradually integrating 100% green electricity into the charging offer in order to give all customers access to CO<sub>2</sub>-free mobility. How quickly the company can achieve this goal will depend on the energy transition and the respective availability in the grid. Currently, the 100% green power offset is realised via certificates of origin.

In order to promote the mobility turnaround, since 2022, Digital Charging Solutions GmbH has also enabled CHARGE NOW customers to report the level of CO<sub>2</sub> emissions they have avoided over the course of a year through charging green electricity in the form of a [“GHG quota”](#) (greenhouse gas reduction quota). The remuneration they receive in return depends on the CO<sub>2</sub> price that can be achieved in emissions trading.

Furthermore, Digital Charging Solutions GmbH launched “CHARGE NOW for Business” in 2020. This is a service that facilitates access to e-mobility for leasing providers, large companies and their fleet management. Digital Charging Solutions GmbH provides the necessary tools for managing an electrified fleet.

## Measures

### Projects of the Urban Mobility Solutions unit

With the aim of helping to improve the traffic situation in cities, the Urban Mobility Solutions division implemented numerous projects in 2022:

#### Subscriptions for electric cars, eBikes and services

With the pilot project [“Mercedes-EQ City Abo”](#) the Mercedes-Benz Group offers customers the opportunity to choose flexibly between different forms of transport. The “City Edition” offer launched in Berlin consists of a subscription for a [Mercedes EQA 250](#) ([WLTP](#): combined electricity consumption: 16,9–15,4 kWh/100 km; combined CO<sub>2</sub> emissions: 0 g/km)<sup>1</sup>, a Swapfiets eBike and a “Mercedes me” charging credit. Due to the positive response, the concept was also extended to Hamburg in June 2022. The idea of a “City Edition” – with a partly

<sup>1</sup> Electricity consumption and range were determined on the basis of VO 2017/115/EU

different configuration – is also to be applied in Los Angeles from 2023. Furthermore, Urban Mobility Solutions has started to explore the introduction of additional “City Editions” in further markets in Europe and Asia. The exact content of the respective “City Edition” depends on the specifics of the regional market or the selected city and the needs of its inhabitants.

The EQ brand is a comprehensive [electric mobility ecosystem](#): it encompasses all the battery-powered electric automobiles from Mercedes-Benz, along with the corresponding products and services. Its product portfolio ranges from electric vehicles and wallboxes to charging services and home energy storage units.

### Real-time urban traffic information

Mercedes-Benz AG participated in the Europe-wide cooperation project “Code the Streets” from January 2021 to February 2022 via its Urban Mobility Solutions division. The aim of this project is to test new ways of providing drivers with helpful and safety-relevant information, so-called city-to-car notifications, while they drive. Urban mobility and city life should thus become safer, more pleasant and more sustainable. Among other things, the drivers received information on their navigation screens about nearby school zones and recommendations on how to regulate their speed appropriately. After the successful completion of various pilot projects in Amsterdam, Helsinki and Stuttgart, Urban Mobility Solutions initiated the development of a corresponding series solution in the year under review.

### Collaborative route guidance

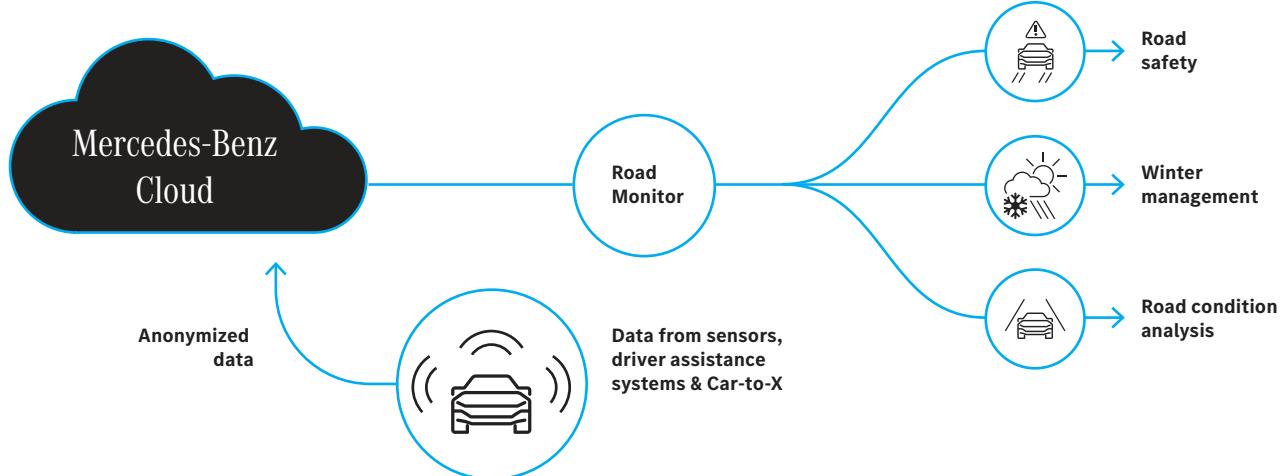
Another impulse for testing a possible series solution comes from successful pilot projects on the topic of “Collaborative route guidance” in Stuttgart. The idea behind this approach: by networking road users during route guidance, traffic can be better distributed across the entire existing infrastructure, especially at peak times and in connection with events or traffic disruptions. On average, all road users can reach their respective destinations faster and more sustainably in this way.

In addition, the Urban Mobility Solutions unit is working on other data-based products, such as a cadastre with information on the location and availability of parking spaces and a scientific method for predicting parking behaviour. By means of parking data analyses, public parking areas can be controlled and managed more transparently and efficiently.

### Analytics for greater road safety in the Netherlands

In 2022, the Mercedes-Benz Group received an extensive commission from the Dutch Ministry of Infrastructure and Water Management to analyse the condition of roads and other transport infrastructure by means of vehicle data. The plan sees the project, called [Road Monitor](#), extending over two years and covering the areas of “Winter management”, “Road condition analysis” and “Road safety”. All provinces of the Netherlands with a road network of more than 130,000 km are included. Urban Mobility Solutions will contribute high-quality and easy-to-use information to the project to make mobility

### Working together to improve road safety



in Dutch cities and municipalities safer, more efficient and sustainable for all transport users. Together with other project partners, modern analysis software will be used to evaluate the data. In consideration of data protection, the data from the **Car-to-X-communication** and other systems of the networked Mercedes-Benz vehicles are anonymised before the analysis.

With the project, the Mercedes-Benz Group underlines its ongoing commitment to traffic safety through innovation. It also provides a good example of the implementation of the Mercedes-Benz Group's sustainable business strategy with the core elements "Sustainable urban mobility" and "Traffic safety".

#### **↗ Traffic safety**

#### **Local neighbourhood mobility: implementation plan developed**

For the neighbourhood project of a German property developer, Urban Mobility Solutions developed a plan for the implementation of a multimodal (electric) mobility concept in 2022. The commissioned team developed a scenario to derive objectives and analysed the market in terms of the availability of suitable technical solutions and service providers. In addition, it determined the scope of the necessary measures and estimated the probable costs and the effect on the targeted reduction of car parking spaces in the neighbourhood. Urban Mobility Solutions continued to hold initial discussions with potential mobility partners for the project and supported the dialogue with the municipality to clarify the legal framework. Finally, the team made a recommendation on the scope and type of charging infrastructure needed. This was based on the legal requirements, forecasts of the market ramp-up for electric vehicles, the charging infrastructure in public spaces and at the workplace, as well as the expected charging behaviour of users.

In the future, a similar project is to be implemented in the USA, among other countries. Urban Mobility Solutions is currently discussing ideas with American property developers for the joint development of mobility concepts for planned neighbourhood development projects.

#### **On demand: electric shuttles for Synergy Park Stuttgart**

Once many employees had returned to the office after working from home, traffic bottlenecks were again seen in the commute to the Stuttgart Synergy Park as they had been before the pandemic. A high proportion of this was due to individual traffic during peak hours. In order to avoid the associated pressures without sacrificing flexibility, in June 2022 the Urban Mobility Solutions division launched the "SSB Flex on-demand shuttle service" project after a two-year postponement. Since then, Mercedes-Benz AG employees have been able to request a shuttle via app and be taken to their destinations in one of two Mercedes-Benz EQ Models used for this purpose. The cars are charged overnight at the free charging points in the underground car park of the Mercedes-Benz Office V, so that no additional charging infrastructure had to be set up. The aim of the pilot project is to validate user acceptance and the impact of a shuttle service. The long-term project objective is to enable commuter traffic to interact more fluidly with the existing transport infrastructure. In addition, a means of transport is to be offered for every individual driving purpose, and easy access to electric mobility should be made possible.

#### **Mobility concept for Stuttgart Hospital**

Due to its inner-city location, the medical centre "Klinikum Stuttgart" faces special challenges in terms of mobility and logistics. In a pilot project launched in the year under review, the Urban Mobility Solutions team plans to develop a holistic mobility concept for the hospital. To this end, it surveys the diverse mobility needs of patients, employees and visitors. Subsequently, their mobility behaviour is also analysed on the basis of key figures. The data will help the hospital to initiate measures to reduce its greenhouse gas emissions and prepare it for future urban mobility requirements.

#### **More efficient driving and charging behaviour through gamification**

The Mercedes me Eco Coach app gives drivers of plug-in hybrids or purely electric vehicles from Mercedes-Benz AG the opportunity to improve the efficiency of their driving and charging behaviour through fun challenges and tips.

The players can compete in a group against other participants or solve their tasks alone. Points are awarded for good performance, which can be collected and exchanged for rewards. By the end of 2022, the app had recorded over 100,000 downloads and a steadily growing community.

### More sustainable delivery traffic in cities

The SUSTAINEER from Mercedes-Benz Vans shows what sustainable delivery traffic in cities could look like in the future. The  technology platform based on the Mercedes-Benz eSprinter brings together a full range of innovative solutions that, for example, make parcel and goods deliveries quieter, cleaner and more efficient – and thus improve the quality of life in cities: among other things, the Mercedes-Benz SUSTAINEER features a low-noise electric drive system and tyres with low rolling resistance. In addition, the SUSTAINEER is equipped with intelligent software and communication solutions that allow efficient route planning in real time. This should not only reduce the kilometres driven, but also result in lower energy consumption. The SUSTAINEER is being continually extended with new ideas and sustainability-related solutions.

 [Sustainability and climate protection in urban delivery transport](#)

## Effectiveness and results

### Effectiveness of management approach

GRI 3-3

“Sustainable urban mobility” as a field of action forms part of the sustainable business strategy of the Mercedes-Benz Group and is firmly integrated into the Group’s existing management system. The individual activities within this sphere of activity are evaluated in conjunction with the respective targets of the responsible business divisions. In addition, the Mercedes-Benz Group is extensively involved in sharing ideas with city representatives and leading experts in the field of urban and transport development. This provides the Group with valuable feedback and suggestions for new strategic initiatives; it also uses this feedback to continually review and improve its concepts.

## Results

In the year under review, the Urban Mobility Solutions unit successfully started or continued the following projects:

- **„Mercedes-EQ City Abo“:** The pilot project launched in Berlin consists of a comprehensive package of Mercedes-EQ EQA plus Swapfiets including e-bike and charging credit. It was successfully extended and was also launched in Hamburg.
- **“Road Monitor” Netherlands:** This project aims to make road and traffic infrastructure safer by collecting and analysing data nationwide. Focus areas are “Winter management”, “Road condition analysis” and “Road safety”.
- **“Code the Streets”:** The Europe-wide cooperation project to test location-relevant “City-to-Car” notifications was successfully completed. As a result, Urban Mobility Solutions has initiated an investigation into the possible series introduction of this notification system for Mercedes-Benz vehicles.
- **Collaborative route guidance:** Following the successful conclusion of a pilot project carried out in Stuttgart to network road users in order to optimise route guidance, an assessment of possible series introduction was also initiated.
- **On-demand shuttle service at Synergy Park Stuttgart:** After a delay due to the pandemic, an all-electric on-demand shuttle service for employees of Mercedes-Benz AG was launched at Synergy Park Stuttgart in June 2022.
- **Mobility concept for Stuttgart Hospital:** The content of this pilot project, which started in 2022, is the creation of a concept to reduce vehicle-related greenhouse gas emissions and to prepare the hospital for future urban mobility requirements.
- **Implementation plan for neighbourhood project:** The project to develop an e-mobility strategy and a multimodal mobility concept for a newly developed neighbourhood in a major German city was completed.



Traffic Safety

## Materiality and goals

GRI 3-3

Targets	Target horizon
Further improve accident prevention systems	Ongoing
Make vehicles even safer for occupants during and after an accident	Ongoing
Make vehicles safer for other road users, for example pedestrians	Ongoing
Increase overall traffic safety through safety initiatives	Ongoing
Further automation of driving functions at  SAE Levels 2-4	Ongoing
Continue integration of social and ethical aspects into automated driving Levels 2-4	Ongoing

Safety is a part of the brand core of Mercedes-Benz. Accident-free driving – this vision drives the Mercedes-Benz Group and is a fixed element of its sustainable business strategy. The Group's driver assistance systems are intended to offer drivers and passengers a high level of safety. They can help to prevent and safely manage critical driving situations in order to protect both vehicle occupants and other road users.

Automated driving systems have the potential to fundamentally change the nature of mobility – and improve it. At the same time, however, it is also important to consider possible risks: It is crucial that product development also takes legal and ethical aspects into account from the outset, beyond certification and safety-related issues.

# Vehicle and vehicle surroundings

## Strategy and concepts

### Enhancing traffic safety

GRI 2-23 GRI 3-3

In 2018, the former German federal government incorporated “Vision Zero” into the coalition agreement with the goal of “zero traffic fatalities by 2050”. The Vision Zero target is also one of the guiding principles in the amendment of the German Road Traffic Regulations (StVO). On the way there, the next stage is to halve the number of road fatalities and serious injuries by 2030 compared to 2020. With sophisticated safety and assistance systems, a vehicle manufacturer like the Mercedes-Benz Group can make a decisive contribution to achieving these goals. The mission is clear: best possible accident safety with high occupant and **partner protection**.

For many decades, the Mercedes-Benz Group’s in-house accident research, which is integrated into vehicle development, has been laying the foundations for innovative, high-performance safety systems. Its specialists are continuously working on enhancing traffic safety and equipping vehicles with increasingly powerful assistance systems which can help to prevent accidents or reduce their severity. The Mercedes-Benz Group also raises public awareness of traffic and vehicle safety issues in educational programmes.

### Real-life safety: Based on real-life accidents

“Real-life safety” – this is the safety philosophy of the Mercedes-Benz Group: for over 50 years, the Group has been conducting systematic accident research – because it wants to build vehicles that are convincing not only in terms of safety in crash tests, but also on the road. While respecting data protection, its specialists therefore analyse real accidents and use the findings to enable new technologies to be evaluated under the aspect of vehicle safety. For example, the Mercedes-Benz Group has used accident data from vehicles with combustion engines to define the best possible installation space for battery and high-voltage components in electric vehicles.

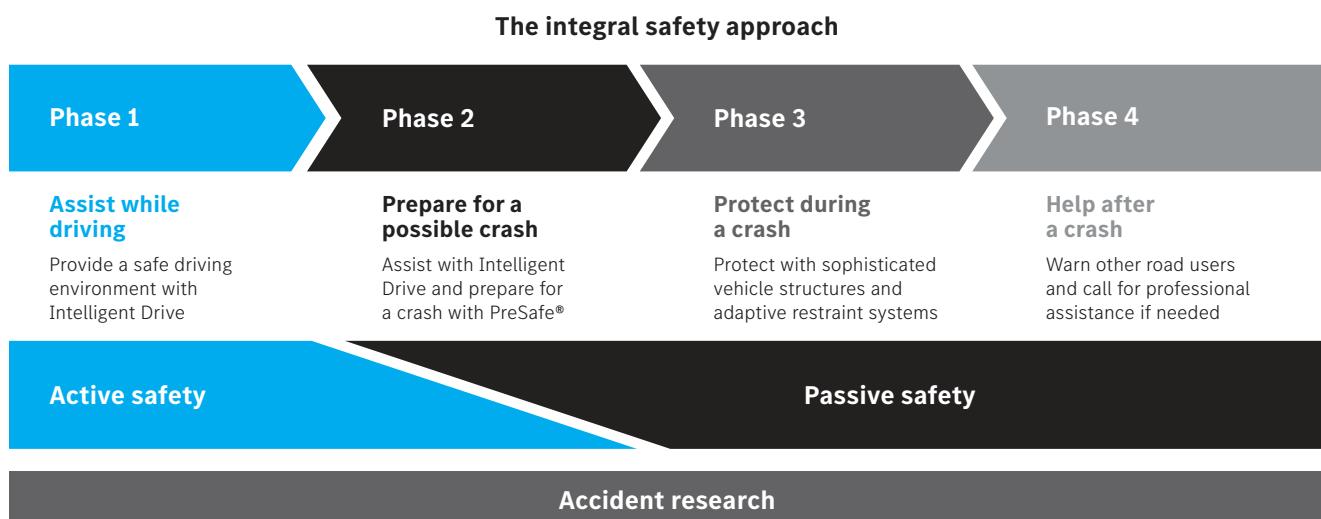
The result of the Mercedes-Benz Group’s meticulous accident research: in many defined cases, the Group’s demands on vehicle safety extend beyond the legal requirements.

### Holistic safety concept

GRI 3-3

The Mercedes-Benz Group utilizes its holistic integral safety concept in its vehicle development activities. This concept was first used in the late 1990s to describe how Mercedes-Benz had divided the utilization of safety systems into four phases: Assistance during driving, Preparation for a possible accident, Protection during an accident and Help after an accident.

## The Mercedes-Benz safety philosophy



With its safety measures, the Group bridges the gap between **active and passive safety** in four phases: between accident prevention (phases 1 and 2) and protection in the event of an accident (phases 3 and 4):

### Phase 1: Assist when driving

with comfort assistance systems that make driving safer, assist the driver and can help to prevent accidents. One example is the Active Distance Assist „DISTRONIC“, which is already included as standard in the first models.

### Phase 2: Prepare for a possible accident

with assistance and safety systems that can warn, assist and act automatically, as well as protection systems that can be activated in the pre-accident phase (PRESAFE®). One example is Active Brake Assist, which the Mercedes-Benz Group has developed in various forms for passenger cars and vans. This system, which is included as standard equipment, can help mitigate the severity of a collision with vehicles or other road users, or completely prevent such collisions altogether.

### Phase 3: Protect during an accident

with systems that can protect all vehicle occupants intelligently and according to need. One example is innovative restraint systems such as the beltbag and the rear airbag in the S-Class for passengers in the rear seats.

### Phase 4: Help after the accident

with systems that automatically switch on the hazard warning lights, ventilate the passenger compartment or summon help. In addition, the Mercedes-Benz Group provides important vehicle information in easily accessible **rescue data sheets** which can facilitate the work of the rescue workers. One example is the „Mercedes-Benz eCall“, which sends an automated emergency call after a serious accident.

## Measures

### Assistance and safety systems

#### GRI 416-1

Beyond the legal requirements and rating standards, the Mercedes-Benz Group analyses real driving situations and derives corresponding requirements for its vehicles. Here, all technical innovations are evaluated on the basis of their contribution to traffic safety.

Mercedes-Benz assistance and safety systems aim to offer a high level of safety. For example, Mercedes-Benz vehicles equipped with driving assistance systems can support drivers when they steer, brake and accelerate (**SAE Level 2**).

And Mercedes-Benz is going another step further in the direction of automated driving: the “DRIVE PILOT”<sup>1</sup> can be ordered for the S-Class and EQS since May 2022 in defined countries. The system allows conditionally automated driving (SAE Level 3) under certain circumstances.

## ↗ Results

Driving assistance systems can react differently to the danger of a collision, depending on the situation. The Active Brake Assist system, which comes as standard equipment in Mercedes-Benz cars, is a good example of this. Active Brake Assist can help reduce the severity of – or even entirely prevent – accidents involving vehicles ahead or pedestrians crossing the carriageway. If a risk of collision is detected, the system can warn the driver both visually and acoustically. If the driver fails to react, Active Brake Assist can brake the vehicle independently up to a certain speed.

In addition, Speed Limit Assist, which has been fitted as standard starting in the Mercedes-Benz A-Class since 2018, was integrated and expanded in other models during the reporting year: The warning for excessive vehicle speed is active whenever the vehicle starts through the use of acoustic and visual signals.

## Accident research and crash tests

The Mercedes-Benz brand was considered a safety pioneer early on – and remains so today: The Mercedes-Benz Group conducted the first crash test back in 1959. For more than 50 years, safety professionals from the Group's own accident research have been investigating accidents involving Mercedes-Benz vehicles. The goal here is to gain a better understanding of how accidents occur and which protective systems could have been used to prevent them. The analysis of real traffic accidents provides the basis for innovative and efficient safety systems and the constant improvement of vehicles.

## Assistance systems in the new EQS

### Active Distance Assist DISTRONIC

- route-based speed adaptation
- with end of traffic jam function
- Active Speed Limit Assist
- Active Stop-and-Go Assist
- predictive adaption of set speed
- Adjustment of the set speed and acceleration for maximum range

### Active Steering Assist

- Active Lane Change Assist
- Active Emergency Stop Assist
- Emergency corridor function

### Active Brake Assist

- with vehicle / pedestrian / bicycle detection
- with cross-traffic function
- with congestion emergency braking function
- with turning manoeuvre function
- intersection start-off function

### Active Emergency Stop Assist

- Optional lane change by one lane at 80 km/h

### Active Blind Spot Assist

- with vehicle exit warning function | Active ambient lighting | MBUX Interior Assistant



### PRE-SAFE® Impulse side

### DIGITAL LIGHT

- Adaptive Highbeam Assist Plus
- ULTRA RANGE High Beam
- with projection function

### Active Parking Assist

- with PARKTRONIC
- with collision detection

### Parking Package with remote parking functions

- Memory Park Assist
- Remote Park Assist

### Car-to-X Communication

### Active Lane Keeping Assist

### Evasive Steering Assist

### Preinstallation for INTELLIGENT PARK PILOT

### PRE-SAFE® Sound

### PRE-SAFE® PLUS

### Parking Package with 360° camera

- with 3D view

### Attention Assist

- with micro-sleep detection

### Traffic Sign Assist

- Crosswalk warning function
- Wrong-way warning function
- Stop sign warning function
- Red light warning function

<sup>1</sup> Availability and use of DRIVE PILOT functions on the highway depend on equipment, countries and applicable laws

For example, the exit warning function has also been created as part of Active Blind Spot Assist.

In addition, the Mercedes-Benz Group tests the crash safety of its vehicles and subsystems with state-of-the-art testing equipment at the Technology Center for Vehicle Safety (TFS) in Sindelfingen. Computer simulations enable the Group to improve the maturity of the test vehicles and safety systems even before the first crash test – and thus increase development efficiency. On the crash test tracks of the TFS, around 900 crash tests and around 1700 **❶ sled tests** can be carried out each year.

In many cases, the Group's high internal safety requirements go beyond what is mandated by law and beyond the requirements set by rating agencies. The **❶ impact loads** tested in the crash test are also aligned with findings from accident research.

### Cooperation for more vehicle safety

The goal of increasing safety on the road can only be achieved through collaboration, and that is why the Mercedes-Benz Group establishes partnerships and participates in research projects. Together with external partners, the Group is working to identify standard procedures that can be used to predict the potential of new protection systems. Furthermore, it intends to work even more closely with existing and new partners to constantly improve and extend collection of accident and traffic data.

The Mercedes-Benz Group has been involved in the strategic cooperation project "Tech Center i-protect". The project includes partners from business, government and scientific institutes. Together with Robert Bosch GmbH, the Fraunhofer Institute for High-Speed Dynamics and the Fraunhofer Institute for Material Mechanics, the Sustainability Performance Center Freiburg, the SimTech Cluster of Excellence at the University of Stuttgart and the Technical Universities of Dresden and Graz, it is researching safety solutions for vehicles. Within this cooperation for example, the Mercedes-Benz Group is working on projects such as new restraint systems for future vehicle interiors, using digital possibilities in accident research and testing new approaches such as the use of injury simulations with digital human models. The goal of this interdisciplinary

cooperation is to network various projects in an agile manner in order to develop ideas and technologies from the fundamental research phase to the near market-readiness stage.

### Ideas for the vehicle of the future

Since the 1970s, the Group has been building test vehicles to research safety systems – the so-called Experimental Safety Vehicles (ESF). With the ESF 2019, Mercedes-Benz presented more than 20 new ideas and new approaches in the field of active and passive safety – including developments close to series production such as the rear airbag, which is now available in the S-Class.

The ESF 2019 is a research vehicle that demonstrates a safety concept for future models that can be operated in assisted (SAE Levels 0-2) or fully automated (SAE Level 4) mode. The ESF 2019 will thus remain relevant over the next few years as well. Examples of future development priorities include the adaptation of restraint systems to new seating positions and cooperative behaviour in fully automated driving (SAE Level 4), involving communication between the vehicle and its surroundings.

### Safety for high-voltage batteries and electric components

As with fuel tanks in vehicles with combustion engines, the Mercedes-Benz Group pays special attention to safety aspects relating to high-voltage batteries and other electrical components in electric vehicles. The installed position of the high-voltage batteries under the vehicle floor already ensures a high level of **❶ conceptual safety**.

Additional safety specifications extend beyond legal requirements and increase the level of **❶ intrinsic safety**: For example, special shielding in the vehicle underbodies of the Group's electric vehicles ensures particularly high resistance to mechanical damage from external sources. The powertrain, the high-voltage battery and all of the high-voltage lines are embedded in a protective structure. All high-voltage lines are extensively insulated.

The Group's vehicles are also equipped with a multi-stage safety system that includes temperature and voltage monitoring features, among other things, and

can also shut down the batteries in an emergency. If the vehicle systems detect a severe impact, all live components outside the battery are shut down in either a reversible or an irreversible process, depending on the situation. At the same time, the **residual energy** in the components is quickly reduced to a harmless level. For rescue services, a rescue disconnection point is built in, which also allows the power supply to be cut off manually. The location of the **high-voltage disconnect device** varies depending on the vehicle in question and can be found in the rescue sheet of the respective vehicle.

## **Mercedes-Benz Vans: Assistance systems ensure a high degree of safety**

Mercedes-Benz is also building on its high safety standards in the van segment. Whether Sprinter, Citan or Vito, the vehicles from Mercedes-Benz Vans feature a wide range of modern safety and assistance systems.

For example, the Mercedes-Benz Sprinter is equipped with the radar-based Distance Assist DISTROTRONIC and Crosswind Assist as standard, which make can driving safer, above all at higher speeds. The new T-Class features numerous driver assistance systems as standard. These include Hill Start Assist, Crosswind Assist, "ATTENTION ASSIST", Active Brake Assist with Cross-Traffic Function, Active Lane Keeping Assist as well as Blind Spot Assist and Speed Limit Assist.

## **Raising awareness of traffic safety**

As a socially responsible Group, the Mercedes-Benz Group actively addresses important social issues. Among other things, it is committed to a wide range of projects in the field of traffic safety.

This also includes "SAFE ROADS": the aim of this initiative is to make the topic of safety tangible. With expert reports and exhibits, the Mercedes-Benz Group wants to educate and raise public awareness on the subject of traffic safety – especially in countries with a high incidence of road accidents. After the two-year break due to the pandemic, "SAFE ROADS" took place in India in the reporting year. On the first day, the focus was on "Child Safety"; on the second day, the "SAFE ROADS Summit India" was held with various stakeholders from industry, the press and politics. The Mercedes-Benz Group plans to continue this initiative in additional countries in 2023.

## **Making children fit for road traffic**

Children are among the road users who are most at risk around the world. For this reason, the Mercedes-Benz Group launched the **"MobileKids"** initiative back in 2001. This trains children between the ages of six and ten to behave safely in road traffic. Around the world, "MobileKids" offers lessons, materials in the respective national languages and activities to sensitise children to the challenges of road traffic. "MobileKids" was part of the "SAFE ROADS" initiative in India in 2022. Representatives of the Mercedes-Benz Group visited local Indian schools as part of this initiative.

↗ **Making children more aware of traffic safety**

## **Effectiveness and results**

### **Effectiveness of the management approach**

**GRI 3-3**

Systematic accident research is the basis for the prevention of accidents in a more targeted manner in the future and for better occupant protection. The Mercedes-Benz Group has set itself the goal of further expanding its commitment to accident research: Its experts will therefore continue to investigate real accidents in which Mercedes-Benz vehicles were involved. In addition, the Group intends to work even more closely with existing and new partners and evaluate anonymised accident data that are available worldwide in compliance with data protection.

## **Results**

### **Top marks and award**

Models from Mercedes-Benz Cars repeatedly receive top marks in safety tests by independent institutes. Of particular note in this regard are the ratings Mercedes-Benz regularly receives from the American Insurance Institute for Highway Safety (IIHS). The IIHS rating<sup>2</sup> assesses crash safety as well as accident prevention and lighting systems.

The Mercedes-Benz E-Class and GLE-Class received the 2022 TOP SAFETY PICK+ award for the 2022 model year, while the GLC was given the 2022 TOP SAFETY PICK distinction.

<sup>2</sup> More information IIHS: [E-Class](#), [GLC](#), [GLE](#)

In addition, the Mercedes EQE received top ratings twice: The maximum rating of five stars in the Euro NCAP<sup>3</sup> safety ratings and the overall rating of “very good” for the optional driving assistance package in the special rating for assistance systems as well as a special Euro NCAP Advanced Award<sup>4</sup> for its  **Car-to-X communication system**.

The new T-Class from Mercedes-Benz Vans took part in the independent Euro NCAP<sup>5</sup> safety test in July 2022. With its performance in the four categories of occupant safety, child safety, pedestrian protection and assistance systems it received five out of five stars. It even led the compact van segment in child safety. Five stars were also awarded to the Citan Tourer, which is especially designed to meet the needs of commercial passenger transport.<sup>6</sup>

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<sup>3</sup> More information test results according to Euro NCAP:  EQE

<sup>4</sup> More information  **Car-to-X communication**

<sup>5</sup> More information test results according to Euro NCAP:  T-Class

<sup>6</sup>  **Citan Tourer Official**

# Automated Driving

## Strategy and concepts

### Opportunities and challenges

Fewer accidents, greater traffic safety. This is one of the objectives associated with the utilization of automated and autonomous systems in vehicles. However, a potential improvement in traffic safety is not the only advantage of automated driving: the technology can also make for efficient traffic management.

For all the advantages, however, caution is also called for: **when pursuing goals, ethical and legal risks in connection with automated systems must not be disregarded and are therefore already taken into account by the Mercedes-Benz Group in product development at Mercedes-Benz Cars.** An important consideration in this regard is the responsible use of Artificial Intelligence (AI), which is important for automated vehicles, especially in the form of **Machine Learning (ML)**: among other things, it helps the system to rapidly and reliably identify objects and situations on and off the road quickly and safely.

The Mercedes-Benz Group is convinced that it can only succeed in entering a new age of mobility in a responsible way through interdisciplinary cooperation.

**Ethical aspects also form the basis for the acceptance and safety of the Group's vehicles**



- 1 The Mercedes-Benz Group is supporting the paradigm shift towards greater vehicle autonomy while taking social and ethical aspects into account.
- 2 The Group's highest priority is safety, with a holistic and sustainable responsibility for all road users.
- 3 That is why the Mercedes-Benz Group develops its automated and connected vehicles not only on the basis of high legal and technical standards, but also on the basis of ethical principles.

### Leading role in automated driving

The Mercedes-Benz Group seeks to play a leading role in the field of automated systems. To achieve this, the Mercedes-Benz Group takes into account various aspects that go beyond purely technical issues. **For example, it implements data protection principles and standards in accordance with the **“Privacy by Design”** maxim along the entire value chain.** In addition, the Group integrates the **“Ethics by Design”** principle in its concepts for conditionally and highly automated driving and is continuously developing them further. In the reporting year, “Ethics by Design” was developed further for SAE levels 3 and 4.

The introduction of the “DRIVE PILOT”<sup>1</sup> for S-Class models and the EQS shows how the Group’s aspirations are already becoming reality today. This system for conditionally automated driving has been on the German market since May 2022. The “DRIVE PILOT” is the world’s first series production system with internationally valid certification which corresponds to the requirements for SAE Level 3. The “DRIVE PILOT” meets the demanding requirements of the internationally valid technical approval regulation UN-R157 **↗ Automated Lane Keeping System (ALKS)**. This paves the way for such a system to be offered internationally. Accordingly, the “DRIVE PILOT” is to be gradually introduced in other countries such as the USA, as soon as the respective national legislation permits driver distraction. However, in addition to the regulatory aspects, technical requirements must also be met – for example, the availability of High Definition Maps for Autonomous Driving in the respective countries. As a next step, the Mercedes-Benz Group aims to obtain system approval for the “DRIVE PILOT” in individual states of the USA.

With “INTELLIGENT PARK PILOT”<sup>2</sup>, a Mercedes me connect service<sup>3</sup>, the Mercedes-Benz Group also created the prerequisite for parking according to SAE Level 4 in 2022. With this pre-installation, the first customers of the S-Class and the EQS for whose vehicle variants the corresponding Connect service is available can use the highly automated and driverless parking system “Automated Valet Parking” from Bosch and Mercedes-Benz, the first of its kind worldwide to have been officially approved for day-to-day operation. The function will first become available in car park P6 at the airport in Stuttgart (Germany) following approval by the Federal Motor Transport Authority (KBA) in November 2022.

## ↗ Results

## Standards and legal framework for automated driving systems

New technologies require legal certainty. For this reason, the Mercedes-Benz Group is a member of national and international bodies and associations that promote the establishment of consistent legal standards for automated driving.

### ↗ Involvement in committees and associations

In Germany, the following laws and regulatory requirements in particular apply to the use of automated driving systems: amendments to the Road Traffic Act (StVG) from 2017 permit conditionally automated driving (SAE Level 3). Furthermore, since 2021, the law on autonomous driving together with the implementing ordinance has also allowed highly automated driving (SAE Level 4).

The ALKS technical approval regulation adopted in 2021 by the World Forum for Harmonization of Vehicle Regulations of the United Nations Economic Commission for Europe (UNECE) is of international significance. In principle, it allows a conditionally automated driving system (SAE Level 3) to be offered internationally and also serves as the basis for system approvals by the Federal Motor Transport Authority (KBA) in Germany. In 2023, extensions to UN-R157 will come into force that extend the range of applications for conditionally automated driving systems (SAE Level 3).

In the meantime, further countries have created legal regulations for the use of automated systems or initiated corresponding legislative processes.

In the opinion of the Mercedes-Benz Group, it is also necessary to further develop the respective national traffic and behavioural legislation in other countries. This is the only way to ensure the legally compliant use of automated or conditionally/highly automated systems (SAE Level 3 or 4).

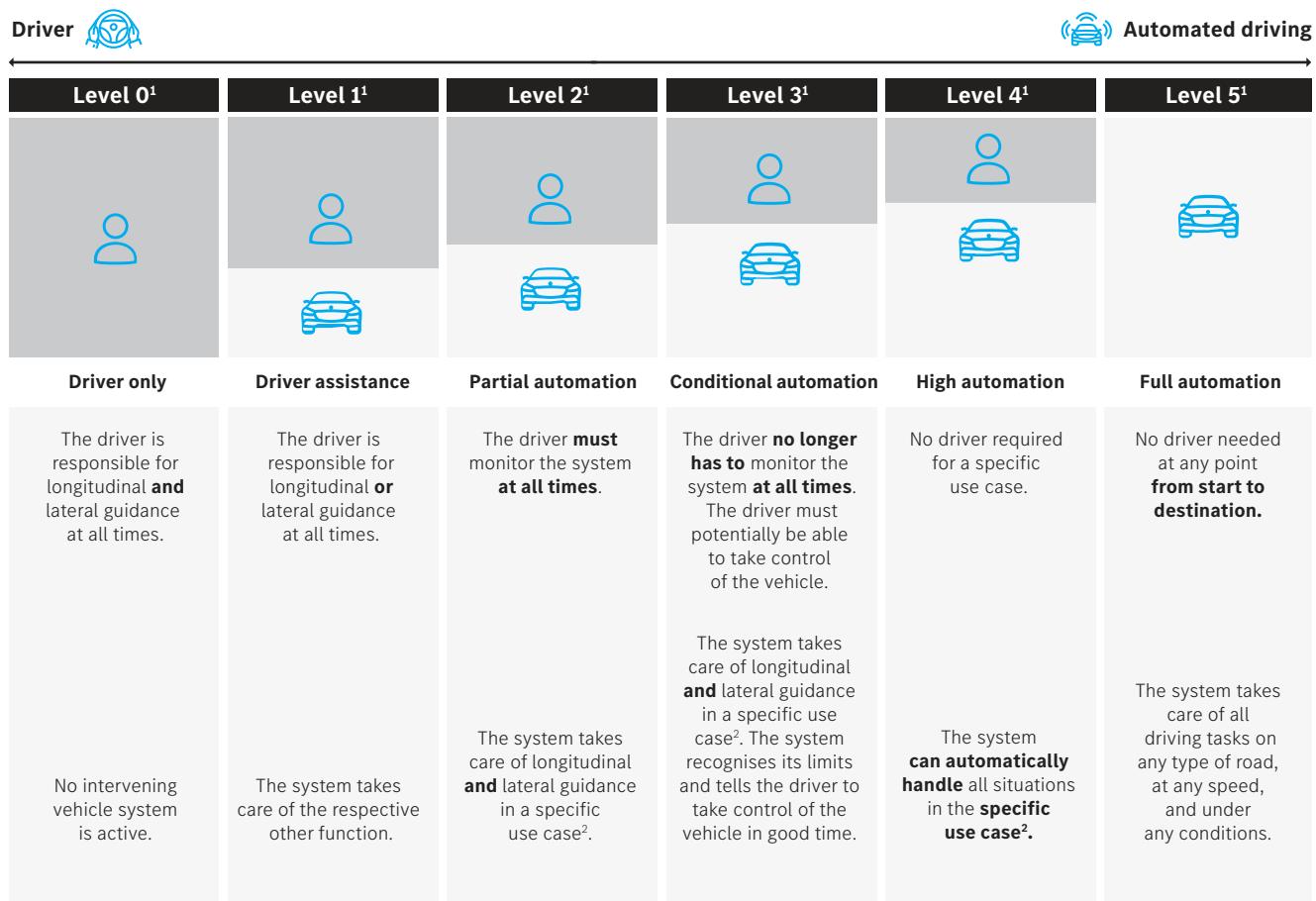
In order to enable the cross-border use of automated cars, international harmonisation of the relevant legal regulations will also be necessary. These should be as compatible as possible and include the same technological requirements. This also involves the issue of how the data needed to ensure the proper operation of automated driving systems should be handled.

1 Availability and use of DRIVE PILOT functions on the highway depend on equipment, countries and applicable laws

2 <https://www.mercedes-benz.de/passengercars/technology/intelligent-park-pilot.html>

3 To use the Mercedes me connect services, you must create a Mercedes me ID and agree to the Terms of Use for the Mercedes me connect services.

## The technology stages on the way to autonomous driving



1 The Mercedes-Benz Group uses the designations of the VDA and, in English, the terminology of the SAE. The descriptions used are those of the VDA

2 Use cases encompass specific types of roads, speeds and conditions

## Responsible product development

GRI 3-3 GRI 416-2

The development of automated driving systems presents special challenges. Accordingly, the Mercedes-Benz Group uses the tools of the “technical Compliance Management System” (tCMS) in the automotive divisions. The aim is to identify risks in the product development process at an early stage and to counter them preventively. The tCMS sets out values, principles, structures and processes that are intended to provide security and orientation for the Group’s employees, particularly on challenging questions of interpretation of technical regulations.

Complex issues in the area of automated driving are evaluated and decided within the framework of an interdisciplinary process, in which legal, ethical as well

as certification and safety-relevant criteria are taken into account.

If vehicles that are already in customer hands show anomalies in terms of safety, conformity or emissions, established assessment and regulatory processes take effect. In such cases, the Mercedes-Benz Group carries out customer service measures or recalls vehicles if necessary.

### ↗ Compliance with technical and regulatory requirements

In addition to the legal, certification-related and technical requirements, the Mercedes-Benz Group also observes further internal guidelines and ethical principles. These include the Data Governance Guiding Principles and the AI Principles, for example, which apply both to software requirements and to the design of hardware and are based

on the corporate principles of the Mercedes-Benz Group and are set out in the [Integrity Code](#) of the Group.

In addition to its own guidelines and principles, the Group is guided by planned or already adopted national and international guidelines and standards. Examples include the 20 rules of the Ethics Commission of the German federal government on automated and connected driving and the independent expert report of the EU Commission on “Ethics of Connected and Automated Vehicles: Recommendations on road safety, privacy, fairness, explainability and responsibility”.

### Integrated approach

The Group uses an integrated approach to answer the technical, legal, ethical and certification and safety-relevant questions relating to automated driving at Mercedes-Benz Cars. An interdisciplinary team evaluates the possible effects of the technical innovations, and develops and implements to deal with the effects. This involves such things as the responsible use of data in programming or considering the needs of all road users who encounter automated vehicles on the road. In this way, the Group wants to increase both the safety and the acceptance of these products.

Among other things, the German Road Traffic Act (StVG) and the German Road Traffic Regulations (StVO) have been translated into a system language. This was necessary, because although the German Road Traffic Act and the German Road Traffic Regulations essentially define the currently valid road regulations in Germany, most of their elements are not designed to be used as a template for programming technical systems. The result of this cross-divisional cooperation is the creation of special driving and system requirements, which help the Group to implement the various legal, ethical, product safety and certification requirements on the system side.

Comprehensive data protection is also important for ensuring public acceptance of automated driving systems. Therefore, data protection experts are involved in the conceptual development at an early stage. The aim is to develop data protection-friendly concepts according to the “Privacy by Design” principle.

The integrated approach played an important role in the market launch of the “DRIVE PILOT”, a system

for conditionally automated driving. The task was to support the paradigm shift in mobility in a responsible manner using the example of an SAE Level 3 system. To this end, the Mercedes-Benz Group carried out special training measures for Sales and After-Sales in 2022. Furthermore, it provided various information services for customers and continually implements individual advisory and accompanying measures to support them in using their vehicle with “DRIVE PILOT”.

### [Data responsibility](#)

## Measures

### Open dialogue

The Mercedes-Benz Group promotes open dialogue between business and consumer associations, authorities, industry, science and society – because broad-based social discussion is a prerequisite for the acceptance of automated driving. To this end, the Group has been using the annual “Sustainability Dialogue” since 2015 to exchange views on ethical, legal and social issues related to automated driving. The “Sustainability Dialogue” last took place on 27 October 2022. The participants in the “Road Safety” working group were in agreement that the transformation of mobility entails fundamental changes that place new demands on road safety research. The Mercedes-Benz Group, as well as all other automotive manufacturers, authorities and the scientific community, can make a contribution to meeting these demands.

### [Dialogue with stakeholders](#)

With regard to safety in cities in the future, the participants defined two key focus areas. In 2022, the Mercedes-Benz Group worked on both of these together with politics, society and researchers and will continue the work in 2023.

The needs and requirements relating to future mobility vary across different countries, cultures and population groups. One thing is therefore clear: For the safe cities of the future, different solutions are needed worldwide. The aim is thus to work out possible country-specific features in dialogue with external stakeholders. The Mercedes-Benz Group also wants to continue to include ethical and social aspects in the product development of its vehicles.

The participants in the working group also expressed their desire to see the Mercedes-Benz Group participate more extensively in the public debate on – and the development of solutions for – sustainable mobility and traffic safety in cities. The Mercedes-Benz Group firmly believes that legal certainty is a fundamental prerequisite for the concrete implementation of mobility solutions. Here as well, the Group plans to work more closely and intensely with cities and research institutions in order to bring together various perspectives.

### **Involvement in committees and associations**

The Mercedes-Benz Group is a member of numerous international and national committees and associations. These include the Automotive Industry Association, the European Automobile Manufacturers' Association and working groups of the United Nations Economic Commission for Europe (UNECE). As part of the association work, the Group contributes to establishing reliable legal frameworks, technical standards and ethical guidelines for use of the new technology. The following are some examples:

- As part of a working group of the German Association of the Automotive Industry (VDA), the Mercedes-Benz Group participated in an interdisciplinary discourse from a legal and certification-related perspective on the drafting of legislation for autonomous driving, which came into force in July 2021.
- Since 2019, the Mercedes-Benz Group has been participating in the Verification and Validation Methods (VVM) research network for SAE Level 4 and 5 automated vehicles. This project, funded by the Federal Ministry of Economics and Climate Protection, aims to develop a system and methods for the safety verification of highly automated and driverless driving functions and vehicles in urban areas. Interim results of the project were presented at a mid-term event with the participation of the Mercedes-Benz Group in April 2022.
- Since 2019, the Mercedes-Benz Group has been involved in the drafting of the ISO TC/241 WG6 standard through the working group of the DIN Standards Committee on Automotive Technology in the VDA. The topic is the "Development of Recommendations on Ethical Considerations for Autonomous Vehicles". The purpose is to embed

an ethical perspective in the development process for automated vehicle systems. The International Organisation for Standardisation (ISO) plans to publish the recommendations in 2023.

### **Public discussion**

Automated driving systems will only be approved for road use if they can meet very stringent safety requirements. The Mercedes-Benz Group is therefore working intensively to establish and further develop the required technical standards. This transparency enables the necessary discussion with relevant stakeholders. The Group will continue to support the projects beyond the reporting year. The aim is to arrive at globally accepted and uniform standards for the safety verification of automated driving functions.

## **Effectiveness and results**

### **Effectiveness of the management approach**

#### **GRI 3-3**

In the area of automated driving, many of the legal rules and regulations necessary for future developments are currently still at the draft stage. The Mercedes-Benz Group would like to contribute to this work, as the effectiveness of its measures depends heavily on the future regulatory framework. The Group has therefore defined the internal requirements for product design in automated driving in interdisciplinary expert and decision-making committees. The focus in this regard was on the safety and compliance of future products, as well as on the already existing legal requirements.

The Group also continuously monitors the developments on the market and accordingly derives further measures for the safety of its automation systems as required – where necessary, also in close coordination with the responsible authorities.

In addition, all employees at the development units can submit technical compliance questions to the responsible tCMS units, which then make their decisions within the framework of an interdisciplinary process. During the reporting year, the established tCMS units used this interdisciplinary process to deal with questions related to automated driving.

## Results

### Safety through redundant systems and responsible use of AI

With the DRIVE PILOT, the Mercedes-Benz Group is aiming to take a decisive step toward conditionally automated driving (SAE Level 3).<sup>4</sup> The DRIVE PILOT was released for sale in Germany in May 2022 after the German Federal Motor Transport Authority issued the new system a licence to operate as an SAE Level 3 system on the basis of the internationally valid UN-R157 regulation. Since that time, customers who drive a Mercedes-Benz S-Class or EQS with corresponding optional equipment can switch to conditional driving automation (SAE Level 3) in congested traffic as well as in traffic jams (up to 60 km/h) on selected stretches of German motorways.

Conditionally automated vehicle operation according to SAE Level 3 requires a system design that enables malfunctions to be safely managed. For this, numerous components must be duplicated.

In the case of safety-related functions – including control of the vehicle during automated driving – the Mercedes-Benz Group also deliberately dispenses with algorithms that change the vehicle's behaviour while it is in operation, for example through self-learning processes. The focus is instead on “supervised learning” using previously collected data. Before the AI software is used in the “DRIVE PILOT”, extensive release tests are therefore carried out to ensure that the AI used shows the intended behaviour in the real traffic environment.

#### ↗ Responsible use of Artificial Intelligence

### Driverless parking and unparking

The Mercedes-Benz Group goes one step further when it comes to parking: with pre-installation of the “INTELLIGENT PARK PILOT” in the S-Class and the EQS, for whose model variants the corresponding Connect service is available, the driverless parking system “Automated Valet Parking” from Bosch and Mercedes-Benz can be used. This function will first become available in car park P6 in Stuttgart, Germany after the approval by the Federal Motor Transport Authority (KBA) in November 2022.

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<sup>4</sup> The system performs all driving tasks in specific circumstances. Even at SAE level 3, the driver must be able to resume all driving tasks at any time when prompted.

27

Co

Cobalt

28

Ni

Nickel

45

Rh

Human rights

46

P

Pall

Rhodium

## Materiality and targets

GRI 3-3

Targets	Target horizon	Status as of 2022
Define and implement protective measures for 100% of the Mercedes-Benz Group's production raw materials which pose an increased risk of human rights violations	2028	
Milestone: Assess 70% of all production raw materials used by the Mercedes-Benz Group with an increased risk of human rights violations and define necessary remediation measures	2025	
Milestone: Assess 50% of all production raw materials used by the Mercedes-Benz Group with an increased risk of human rights violations and define necessary remediation measures	2023	
Milestone: Assess 40% of all production raw materials used by the Mercedes-Benz Group with an increased risk of human rights violations and define necessary remediation measures	2022	41%
Assess 100% of commodities sourced from service supply chains posing an increased risk of human rights violations	2026	36%

The goal of the Mercedes-Benz Group is to combine business success with responsible action toward the environment, people and society – and to do so along the entire value chain.

The expansion of electric mobility in particular is also further increasing public interest in respect for human rights within the automotive supply chain, because the production of battery cells requires the use of raw materials such as lithium and cobalt. These raw materials often come from countries where there is a risk that they are mined under conditions that could be critical from a human rights standpoint.

In addition to the interest expressed by consumers and civil organizations, the Mercedes-Benz Group is also observing increasing interest in human rights issues by investors and rating agencies. Human rights issues are increasingly having an influence on investment decisions.

Moreover, the German Bundestag passed the Supply Chain Due Diligence Act (LkSG) in July 2021. It entered into force at the beginning of 2023. The European Commission also presented a proposal for a directive on corporate due diligence in the area of sustainability in February 2022.

For the Mercedes-Benz Group, respect for human rights is a fundamental aspect of responsible corporate governance. The goal is to manufacture products without any human rights violations. With the Human Rights Respect System (HRRS), the Group has developed an approach for the implementation of [human rights due diligence](#) in order to live up to its aspiration.

# Social Compliance

## Strategy and concepts

### Obligation and mission

GRI 2-23/-24 GRI 3-3

Respect for human rights has key importance for the Mercedes-Benz Group and is an obligation as well as a mission for the Group. The company has therefore made upholding human rights an area of action of its sustainable business strategy. The Mercedes-Benz Group also introduced a corresponding risk-based system to ensure ongoing human rights due diligence. The measurable targets and key figures for the system are defined in the sustainable business strategy.

The Mercedes-Benz Group respects the internationally recognised human rights and has committed itself to respect the following standards, among others:

- Universal Declaration of Human Rights
- International Covenant on Civil and Political Rights
- International Covenant on Economic, Social and Cultural Rights
- ILO (International Labour Organization) Declaration on Fundamental Principles and Rights at Work
- UN Guiding Principles on Business and Human Rights
- Ten principles of the [UN Global Compact](#)
- [OECD Guidelines](#) for Multinational Enterprises<sup>1</sup>

This is contained in the Group's [Integrity Code](#) as well as in the [Principles of Social Responsibility and Human Rights](#), which are binding for all employees worldwide. The Mercedes-Benz Group has established the Human Rights Respect System (HRRS) for the implementation of human rights due diligence.

#### [Assessment of human rights risks](#)

### Principles

Respect for human rights is a fundamental component of responsible corporate governance at the Mercedes-Benz Group. The Mercedes-Benz Group is committed to ensuring that human rights are respected and upheld along the entire value chain in all Group companies and by partners and suppliers. The [Principles of Social Responsibility and Human Rights](#) reflect this voluntary self-commitment.

All relevant specialist units of the Group participated in the drafting of the Principles. This included input from internal human rights experts, as well as the perspectives and expertise of external stakeholders. The requirements of the aforementioned international standards and the Supply Chain Due Diligence Act (LkSG) were taken into account.

The Chairman of the Board of Management and other Members of the Board of Management of Mercedes-Benz Group AG signed these Principles, together with the General Works Council, the World Employee Committee and IndustriALL Global Union. They supplement and specify the principles of human rights and good working conditions in the Mercedes-Benz Group's Integrity Code. The Principles of Social Responsibility and Human Rights apply to all employees worldwide. Corporate Audit incorporates the principles regulated therein in its audit criteria on the basis of the Integrity Code in its audit criteria and ensures that its provisions are observed.

<sup>1</sup> Chapter IV on Human Rights in the OECD Guidelines for Multinational Enterprises.

With these Principles, the Mercedes-Benz Group commits itself to preventing adverse impacts on human rights in its own business operations and those of its partners and suppliers worldwide and to bring to an end and mitigate these negative effects as far as possible. The Mercedes-Benz Group continues to develop the Principles and to adapt them in accordance with the results of the risk analysis undertaken as part of the HRRS on a regular basis and as required. It communicates it to all employees of the Mercedes-Benz Group as well as to Group companies. The Principles are publicly available in [different languages](#) and have been appended to the Integrity Code since January 2023. It is enclosed with every employment agreement.

#### [↗ Human rights risks](#)

### Requirements for suppliers

[GRI 407-1](#) [GRI 408-1](#) [GRI 409-1](#)

That is why the Mercedes-Benz Group is committed to the responsible procurement of production and non-production materials as well as services.

In this context, the [Responsible Sourcing Standards \(RSS\)](#) form the guiding principles for sustainable supply chain management of the Mercedes-Benz Group. These define minimum requirements and expectations for suppliers. They reflect the conviction that companies can achieve a sustainable supply chain only together with their partners. To ensure that this succeeds, within the scope of new tenders, the Mercedes-Benz Group has obligated its direct suppliers to comply with the RSS, communicate them to their employees and to their direct suppliers and ensure their compliance within their sphere of influence.

The aim is to prevent, minimise or, where possible, end these negative effects on human rights worldwide. In addition, the standards include requirements for environmental protection: the aim of these is to conserve natural resources and prevent environmental damage caused by economic activity, to repair it when it occurs and to compensate for it if it is unavoidable or not [rectifiable](#). The RSS are focussed in particular on human rights aspects, which the Mercedes-Benz Group has identified in an impact assessment as salient human rights risks. Furthermore, with regard to suppliers, the responsible procurement of raw materials from conflict and high-risk areas (CAHRAs) is an important issue.

#### [↗ Human rights risks](#)

The RSS are aimed at all direct suppliers of the Mercedes-Benz Group and are applied worldwide. Since August 2022, the minimum requirements related to human rights and the environment contained in the RSS have been an integral part of new supply agreements with direct suppliers of the Mercedes-Benz Group.

Furthermore, the Mercedes-Benz Group also formulates expectations for suppliers with the new framework: These expectations reflect sustainability targets, which the Group intends to work toward together with its suppliers. The aim is to work together in order to promote solutions for the protection of human rights and the environment. Likewise, processes that help the Group to comply with performing due diligence for responsible corporate action are to be jointly established and continually developed.

### Organisational embedding

[GRI 2-19/-23/-24](#) [GRI 3-3](#)

The Social Compliance department serves as the centre of competence for human rights. This department works closely with the specialist units responsible for operational implementation of the company's human rights due diligence obligations, and with the procurement units in particular.

Overarching activities relating to human rights issues are managed by the Mercedes-Benz Group AG Board of Management division Integrity and Legal Affairs. The division is responsible for drawing up the Principles of Social Responsibility and Human Rights and it also manages human rights due diligence obligations within the Mercedes-Benz Group via the Group's Human Rights Respect System (HRRS). The responsible member of the Board of Management regularly obtains information and corresponding reports about the Group's human rights activities.

During the reporting year, the Mercedes-Benz Group resolved for the first time to designate a Human Rights Officer. The Human Rights Officer is responsible for monitoring compliance with the Principles of Social Responsibility and Human Rights and the HRRS and reports to the member of the Board of Management responsible for Integrity and Legal Affairs. The Human Rights Officer is also a member of the Group Sustainability Board and reports annually and as needed to the Mercedes-Benz Group AG Board of Management

on particularly relevant human rights issues and the status of implementation of the Principles of Social Responsibility and Human Rights. The Chief Compliance Officer serves as the Human Rights Officer at the Mercedes-Benz Group.

In addition, the responsible specialist units reported to the entire Board of Management and various committees – for example, the Group Sustainability Board (GSB) – during the reporting year. The GSB is composed of, among others, the Members of the Board of Management responsible for sustainability.

The purchasing units inform the purchasing managers they report to as well as Members of the Board of Management about their respective measures for upholding human rights. The responsible specialist units report to the GSB on the progress of the raw material assessments on a quarterly basis.

#### ↗ Human rights risks

Strategic decisions on human rights issues are taken by the Board of Management. It has oversight over human rights issues and is kept regularly informed by those responsible in the specialist units. In the reporting year, the following topics, among others, were discussed with the Board of Management:

- Outlook on regulatory developments and derivation of corresponding action recommendations for the Group.
- Further development of policies, processes and measures aligned to the requirements of the LkSG – for example, the establishment of the new function of Group Human Rights Officer.
- Presentation and adoption of the RSS.

The Board of Management also informs the Supervisory Board about sustainability issues such as human rights and labour standards at regular meetings.

In 2020, the Board of Management of Mercedes-Benz Group AG decided to make human rights-related annual targets relevant for remuneration. This means that the variable remuneration of the executives as well as the Board of Management also depends on, among other things, whether specific goals in the area of human

rights have been achieved. The basis for this is provided by the performance of assessments of raw materials relevant for production which pose a high risk of human rights violations.

#### ⌚ Remuneration Report 2022

### Assessment of human rights risks

GRI 3-3 GRI 414-1

#### Human Rights Respect System (HRRS)

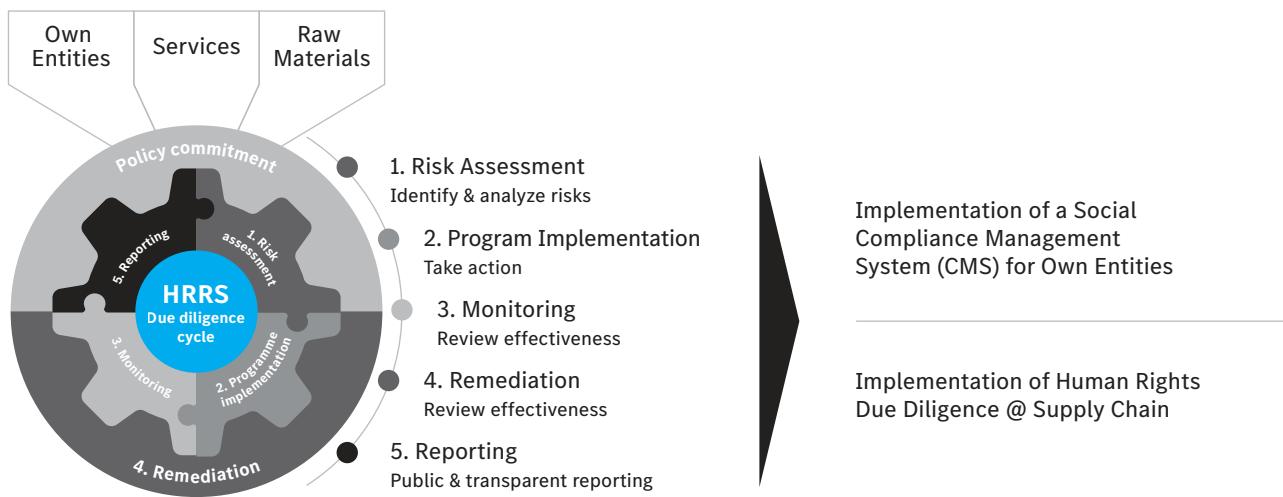
The Human Rights Respect System (HRRS) is the Mercedes-Benz Group's approach to fulfilling its human rights due diligence obligations. It encompasses the protection of the Mercedes-Benz Group's own employees via the Social Compliance Management System (Social CMS) in Group companies, as well as the processes used to monitor human rights due diligence in supply chains. The Mercedes-Benz Group utilizes this human rights ↗ due diligence approach to examine Group companies and their direct suppliers (↗ tier 1) and also, from a risk-based standpoint, indirect suppliers (beyond tier 1).

The HRRS is to be understood as a due diligence cycle that basically consists of four steps: 1. Risk assessment, 2. Programme implementation, 3. Monitoring, and 4. Reporting. It is designed to identify risks and possible and actual negative effects of business activities on human rights early on, to systematically avoid such effects and, if necessary, to initiate countermeasures.

In addition, the Group's own whistleblower system BPO (Business Practices Office) also contributes to the Mercedes-Benz Group's human rights due diligence. The BPO protects both the ↗ rights holders as well as the Group. The Mercedes-Benz Group aims to enter into an exchange with potentially affected rights holders or their representatives and to take their interests into account even before there is cause for complaint.

The Mercedes-Benz Group continues to expand the HRRS step by step and also involves external stakeholders in the process. These include, among others, rights holders such as employees and their representatives or the local communities. For example, the Mercedes-Benz Group interacts with international non-governmental organisations (NGOs) on human rights risks associated with the extraction of certain raw materials.

## The Human Rights Respect System (HRRS)



### Human rights risks

#### Human rights risks according to the type and scope of the business activity

In accordance with the United Nations (UN) Guiding Principles, the Mercedes-Benz Group has identified salient human rights risks according to the nature and scope of its own business operations. The legal frame of reference relevant to the Group included all internationally recognised human rights – but especially the ILO Core Labour Standards and the International Bill of Human Rights. In the specific context of automotive production, this results in significant human rights risks, which are put into concrete terms in the Group's Principles of Social Responsibility and Human Rights as well as in the RSS directed at the suppliers. These also comprise the human rights specified in the LkSG.

- Abolition of child labour
- Abolition of forced labour
- Freedom of association and right to collective bargaining
- Equal opportunities and protection against discrimination
- Right to health and safety at work

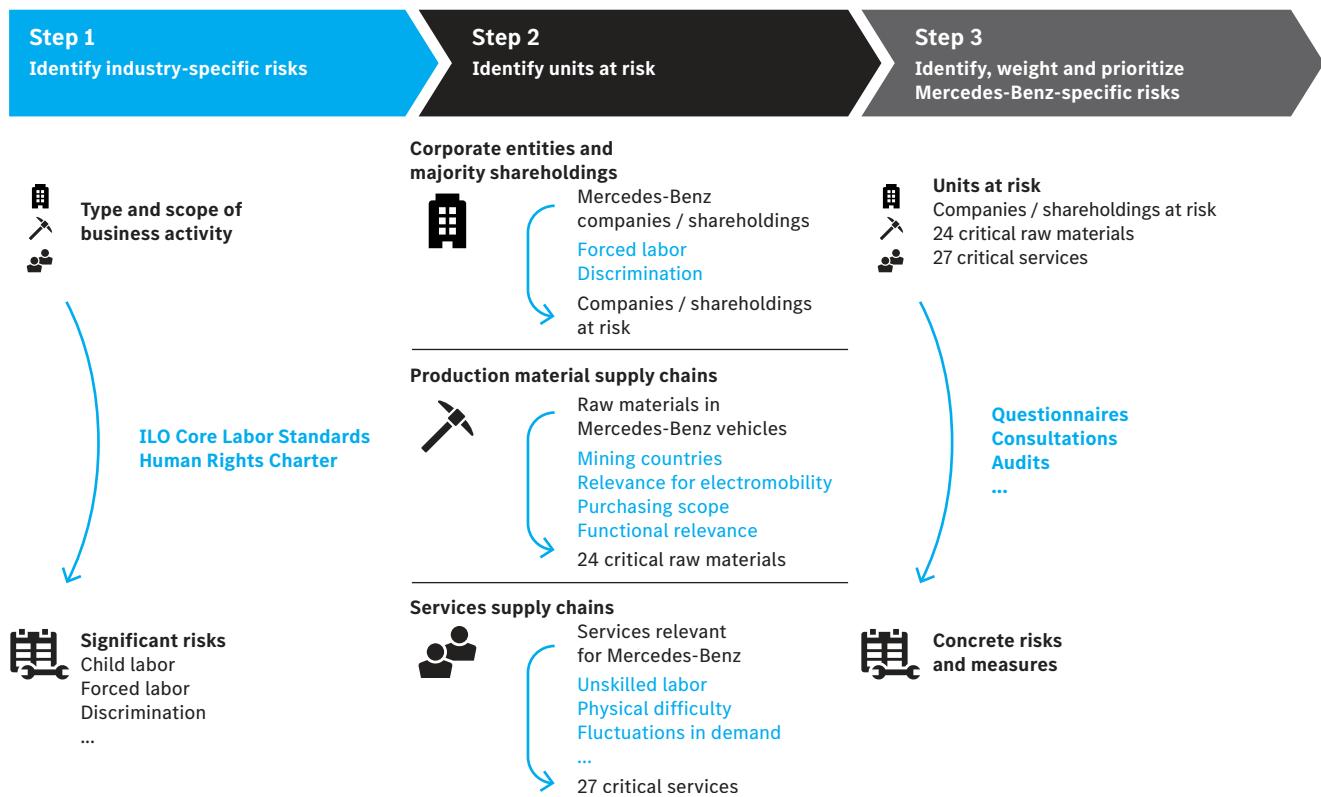
- Working hours, remuneration and benefits
- Protection of human rights defenders
- Protection of local communities and indigenous peoples
- Security personnel and the protection of human rights

#### Human rights risks in Group companies as well as in production material and service supply chains

In implementing human rights due diligence processes, the Mercedes-Benz Group follows a systematic, risk-based approach – as laid down by the UN Guiding Principles: to enable the salient human rights risks to be appropriately addressed, the first step for the Group is to identify Group companies as well as supply chains for production materials and services which potentially pose human rights risks. In doing so, the Mercedes-Benz Group takes a different approach depending on the type of business relationship.

The Mercedes-Benz Group subjected its Group companies to a human rights risk analysis based on an internally developed assessment model. Using recognised country risk indices, it determined the respective human rights risk situation for each Group company. In addition, the Mercedes-Benz Group considered the risk of the respective business models. Each Group company was then assigned to a corresponding risk cluster.

## Identifying human rights risks



To determine the human rights impacts in production material supply chains, the Mercedes-Benz Group first analysed the raw materials present in the vehicle. It then compared these with the “List of goods produced by child labour or forced labour” of the US Department of Labour. The Group prioritised critical raw materials in several steps – criteria included human rights and environmental risks in the countries where the raw materials are extracted, the relevance of the raw materials for the transformation to electric mobility, the functional relevance of the raw materials in important components and the purchasing scope. The result is a list of 24 raw materials associated with increased human rights risks. These are now being assessed step by step and on a supply chain-specific basis. The list can be viewed in the [Mercedes-Benz Raw Materials Report](#).

In order to identify services that are particularly critical from a human rights perspective, the Mercedes-Benz Group used the following criteria within the scope of an impact assessment:

- The number of untrained employees
- High fluctuations in demand
- The physical difficulty of the task to be performed
- The visibility of the people who provide the services
- The use of HR service providers
- A large number of contract partners
- High economic pressure along the supply chains

## 24 critical raw materials in the supply chain

Al Aluminium	Cr Chromium	Co Cobalt	Cu Copper	C Graphite	Fe Iron
 Leather	Li Lithium	Mg Magnesium	Mn Manganese	 Mica	Mo Molybdenum
Ni Nickel	Nb Niobium	Pd Palladium	Pt Platinum	 Rare Earth Elements	Rh Rhodium
 Rubber	Si Silica sand & Silicon	Ta Tantalum	Sn Tin	 Tungsten	Zn Zinc

The Mercedes-Benz Group compared these criteria with the services relevant to it and as a result identified 27 services. These were prioritised with the help of external expert advice based on the Severity Approach of the UN Guiding Principles. The identified services can be categorised as follows:

- Construction services
- Event services
- Security services
- Maintenance services
- Logistics services
- Services related to work clothing

For the identified services, the salient human rights risks are then identified on a step-by-step and supply chain-specific basis, and corresponding measures are defined – analogous to the procedure for critical production material supply chains.

### Requirements for suppliers

#### **Identify, evaluate and prioritise concrete risks**

In a second step, the concrete risks are identified – those related to Group companies as well as those related to supply chains. These risks are then weighted and prioritised. This requires further process steps that relate to the circumstances of a specific Group company or supply chain.

According to the identification of the salient human rights risks, the human rights risk exposure of the various companies varies depending on the country and business model. With reference to the main risk areas of employee rights, diversity and non-discrimination, as well as security and local risks at the locations, the Mercedes-Benz Group sent a standardised questionnaire to Group companies associated with high and medium risk for the first time in 2021 in order to determine and review concrete risks. It then reviewed the results of the questionnaire with regard to the concrete risks. In this way, human rights risks of the respective Group companies were examined, evaluated and the final social compliance risk classification was determined in direct exchange with the supporting Compliance units in 2022 as well. The analysis results are the basis for the allocation of risk-specific packages of measures.

In addition to Group companies and direct contractual partners, the Mercedes-Benz Group also examines the deeper supply chain due to the higher incidence of human rights risks there.

Which of the major human rights risks occur in raw material supply chains specific to the Mercedes-Benz Group can vary depending on the raw material. It therefore subjects the previously identified 24 critical raw materials to a more in-depth assessment.

In this context, it is guided, among other things, by the so-called Severity Approach of the UN Guiding Principles: accordingly, the Mercedes-Benz Group first assesses which of the salient human rights risks fundamentally arise in connection with the respective raw materials. If the risks do arise, their severity (scale) and the number of people affected (scope) are subsequently assessed. In a further step, based on supplier dialogues, supplier self-disclosures and audits, the Mercedes-Benz Group assesses whether the risk actually arises in its own raw materials supply chain and whether there are opportunities for remediability. On this basis, the Group defines measures and implements them in order to minimise risks.

In the [Mercedes-Benz Raw Materials Report](#), the Mercedes-Benz Group reports on the salient human rights risks and due diligence measures in connection with critical raw materials.

### **Social Compliance Management System**

The Mercedes-Benz Group uses the Social Compliance Management System (Social CMS) to identify and address in particular human rights risks that can arise among employees in its own Group companies. This is based on country- and business model-related risk analyses. The focus is on the human rights main risk areas that have been identified for the Group companies: employee rights, diversity and non-discrimination, as well as security and local risks at the locations.

The aim of the Mercedes-Benz Group is to minimise potential risks in the main risk areas through the systematic approach of the Social CMS.

The Group has integrated the Social CMS and the topic of human rights at its Group companies into the central, systematic compliance risk management process. It derives packages of measures, which are allocated to the affected Group companies and adjusted as needed – the compliance officers of the global compliance network are also involved in this process. Based on this, it prepares an aggregate risk assessment overview for the Group companies.

The system is reviewed and revised regularly and as needed. The reasons for this can be a new or changed business operation of a Group company as well as newly identified, rated or prioritised risks and focal risk areas. In addition, the Mercedes-Benz Group takes into account regulatory requirements on human rights due diligence.

In the reporting year, the Mercedes-Benz Group subjected 100% of the Group companies to this risk analysis.

### **Human rights risks in supply chains**

The Mercedes-Benz Group is aware of its responsibility to uphold human rights. Through extensive measures, it wants to ensure that both production materials and services are procured in compliance with sustainability standards worldwide.

[↗ Measures in supply chains](#)

## Production materials

### GRI 414-1

Vehicle production requires many materials. These include raw materials whose mining and processing pose the risk of human rights violations and negative environmental impacts. That is because these raw materials sometimes come from countries that lack sufficient environmental and social standards.

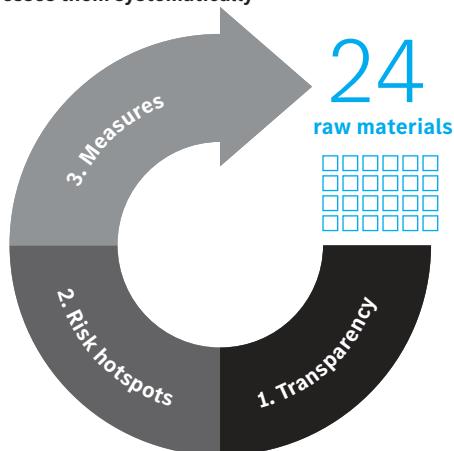
The Mercedes-Benz Group focuses especially on critical raw materials when assessing human rights risks in the production-material supply chain.

The [24 critical raw materials](#) that were identified during a preliminary risk assessment will be gradually examined in more detail between now and 2028. This review basically consists of three steps:

1. Increasing transparency along the raw material supply chains — especially with regard to certain key components such as battery cells. To this end, Mercedes-Benz AG contacts the suppliers of the relevant components, for example, and asks them to disclose their structure of subcontractors.
2. Identification of risk hotspots in these supply chains, e.g. on the basis of the specific risks in the individual mining countries.
3. Definition and implementation of measures for the risk hotspots and review of whether they are effective over the long term.

## Critical raw materials in the supply chain

The Mercedes-Benz Group identifies risks and addresses them systematically



The Group publishes the results of these assessments in its [Mercedes-Benz Raw Materials Report](#).

By the end of 2022, the Mercedes-Benz Group assessed raw materials with an increased risk of human rights violations in this way and achieved its target for 2022. The Group intends to gradually increase this percentage further. The target for 2025 is 70%. By 2028, appropriate protective measures are to be defined for 100% of raw materials posing an increased risk of human rights violations. Progress is presented in the context of the Raw Materials Report.

A key principle when deciding on a measure is that the Mercedes-Benz Group does not generally exclude high-risk areas as sources of critical raw materials. Rather, the approach aims to improve the situation on the ground for the people and to strengthen their rights. In doing so, the Mercedes-Benz Group is also following the recommendation of NGOs, policymakers and other relevant stakeholders who advise not to withdraw from critical countries. The Mercedes-Benz Group follows the principle of “empowerment before withdrawal”. This means that it wants to make an active contribution in its supply chains to better protect people and the environment – and not turn its back on problems. It therefore works closely with relevant stakeholders in the raw material-specific supply chains.

## Services

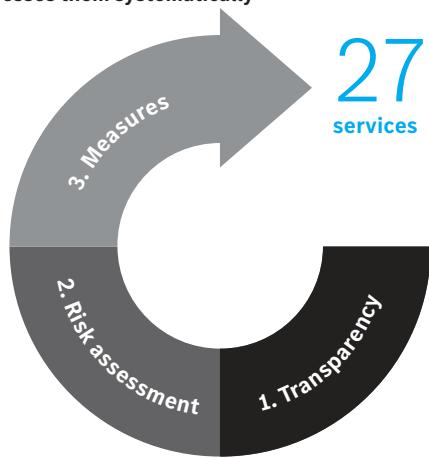
The Mercedes-Benz Group also ensures that its service providers share responsibility for respecting human rights and for other sustainability-related aspects. International Procurement Services (IPS) evaluates all new service providers in risk countries and critical procurement segments to determine whether they fulfil social and environmental standards, are ethical in their business operations, and properly implement policies. IPS conducts service provider screenings, audits and risk-based due diligence analyses with selected service providers. These measures are to ensure that social standards and environmental requirements are understood and complied with.

The Group used a preliminary risk analysis as a basis for identifying 27 services that are potentially critical from a human rights standpoint. In cooperation with a team of experts, the results of this analysis were then

used to create a list of questions. Service providers are required to answer these questions. The goal of the Mercedes-Benz Group here is to identify any increased human rights risks for certain services and sectors. This gives the Group a transparent overview of the risks and enables it to initiate targeted analyses of the status quo and engage in a productive dialogue with relevant service providers.

### Critical services in the supply chain

The Mercedes-Benz Group identifies risks and addresses them systematically



The Mercedes-Benz Group also audits its service providers' due diligence activities. These audits focus on assessments of service providers in high-risk countries. The Group supplements its assessments with document checks and database research in order to ensure the information is plausible.

### Stakeholder involvement

#### GRI 2-29

The Mercedes-Benz Group attaches great importance to further developing and implementing its HRRS together with external stakeholders. It is particularly important for it to engage with potentially affected rights holders, for example with employees and their representatives in order to identify human rights risks and develop appropriate measures. But the Group also engages in dialogue with external third parties such as civic organisations or local communities and takes their suggestions into account.

As part of the annual [“Sustainability Dialogue”](#), the Human Rights Working Group in the reporting year discussed the whistleblower system as well as the Mercedes-Benz Group's approach to implementing human rights due diligence in [raw material supply chains](#). The aim of the Human Rights Working Group at the “Sustainability Dialogue” is to incorporate feedback and expertise from external stakeholders into the further development of the HRRS.

#### ↗ Partnerships

A core group of external stakeholders was also formed under the umbrella of the “Sustainability Dialogue” to support the Mercedes-Benz Group in the further development of the HRRS. The Mercedes-Benz Group also involves external experts on an ad-hoc basis.

#### ↗ Sustainability Dialogue

It also involves potentially affected stakeholders in the review of its 24 raw materials identified as critical in order to identify actual risks along the respective supply chain. Regional and local NGOs are an important stakeholder group in this context. They often provide a more accurate picture of the situation on the ground and know the concerns of the potentially affected parties. In addition, the Mercedes-Benz Group has begun to establish a process to incorporate the concerns of potentially affected parties even more systematically. In the reporting year, it exchanged views with relevant NGOs on topics including deep-sea mining, leather production and deforestation, aluminium production and bauxite mining, small-scale mining, human rights and environmental due diligence, as well as mining standards.

Together with the [Initiative for Responsible Mining Assurance \(IRMA\)](#), Mercedes-Benz AG collaborated on an approach to create better opportunities for local communities affected by mining to participate in audits. The aim of the project was to test and enhance procedures for effectively engaging affected persons before, during and after the audit of mining sites. Through the effective engagement with affected persons throughout the audit cycle, mining standards can be more effective in reducing risks of mining operations. The year-long project was completed at the end of 2022. The results will be published in the spring of 2023.

## Complaints management

The Group offers employees and external whistleblowers various channels through which they can report suspected human rights violations and rule violations and also request remedy. These channels thus also help the company identify and assess human rights risks throughout the organization. Both the company BPO (Business Practices Office) whistleblower system and the World Employee Committee are available to receive reports of suspected human rights violations. In addition to contacting the BPO, employees can also seek support from the relevant managers, Human Resources, the social counselling service, the company medical service and the works council, especially in cases of personal violations of rules such as sexual harassment, discrimination or racism. Another contact point is the "Integrity Info Point".

The BPO whistleblower system is available to all employees, business partners and external whistleblowers worldwide who suspect and wish to report risks to the Group or misconduct within the Group or its supply chains.

In order to constantly increase trust in the BPO whistleblower system and to make it even better known among employees, the Mercedes-Benz Group is continually undertaking communication measures. For example, it provides information materials such as country-specific info cards, pocket guides or an explanatory film, which is available in ten languages. In various dialogue events, it informs its employees about the BPO and encourages them to give feedback. In addition, the Mercedes-Benz Group regularly informs the employees about the type and number of reported violations and provides case studies on a quarterly basis.

With regard to supply chains, suspected violations of the Responsible Sourcing Standards can be reported via the Business Practices Office (BPO). If the misconduct or problem falls within the supplier's area of responsibility, the supplier must take measures to immediately correct or eliminate the problem. The supplier is furthermore obligated to make known the available opportunities to lodge a complaint within its supply chain. In addition, it must ensure that the information is also passed on to the deeper supply chain. At the same time, the Mercedes-Benz Group requires its suppliers to establish an equivalent

complaint format for their own supply chains. They are also to work toward incorporating a similar reporting obligation in contracts with sub-suppliers. According to this, relevant information and reports of violations must be shared by sub-suppliers with the partner.

### ↗ The whistleblower system BPO

In addition to the Group's own BPO whistleblower system, the Mercedes-Benz Group is participating in the conceptual design and planned testing of an industry-wide complaints mechanism as part of the National Action Plan on Business and Human Rights of the Federal Republic of Germany.

## Measures

### Raising awareness of human rights

#### GRI 410-1

The Mercedes-Benz Group uses the Integrity Code and the Principles of Social Responsibility and Human Rights to provide its employees with information about the topic of human rights principles and to raise their awareness of human rights risks. The provisions of the Integrity Code and the Principles are binding on all employees. During the reporting year, the Principles were integrated into existing training concepts, such as the mandatory webbased basic module [Integrity@Work](#), in which the Group communicates to all employees the strategic and operational importance of the topic of human rights for the Mercedes-Benz Group and the relevance it has in daily work. Depending on the area of activity, the onboarding process for new employees also includes further function-specific training on human rights issues in the respective work environment.

In 2022, the Mercedes-Benz Group introduced new compliance training courses. These are mandatory for employees of the purchasing and sales organisations as well as for members of management with supervisory functions. The content includes target group-specific human rights issues as well as roles and responsibilities within the framework of the Principles of Social Responsibility and Human Rights. The human rights training is available to all interested employees.

The local compliance and security officers have an important role to play in safeguarding human rights

within the Group companies. That is why they have been made aware of relevant human rights risks by means of a web-based training course since 2020. The course focuses on the four main risk areas identified in a risk analysis: workers' rights, diversity, security and local conditions. The Mercedes-Benz Group also uses this training in the area of corporate security: the aim is to make the employees more aware of the human rights risks in connection with internal security processes and services.

#### ↗ Human rights risks

As part of the continuous compliance training programme, the employees of the Mercedes-Benz Group completed 60,129 online training sessions related to human rights topics in the reporting year; this corresponds to 7,782 hours.

Mercedes-Benz AG trains its employees in procurement in a targeted manner: In the reporting year, 114 employees in production materials procurement of Mercedes-Benz AG took part in a sustainability training course. The main focus was on requirements that must be accepted by suppliers in the context of contract awards.

#### ↗ Integrity and Compliance training programme 2022

### Measures in the Group companies

Mercedes-Benz Group AG monitors and verifies the respect and protection of human rights in all its Group companies. For this reason, the Mercedes-Benz Group performs a systematic risk-based analysis of potential risk factors in the Group companies – among other things, it carries out multi-level risk assessments for this purpose. The results are carefully evaluated and documented.

#### ↗ Social Compliance Management System

Based on the risk rating of the Group companies, packages of measures are allocated to the business units. The Group companies implement these measures. To support this, the Mercedes-Benz Group provided the Group companies with communication materials during the reporting period. These include the values and requirements that the Group pursues in its dealings with employees and business partners.

The packages relate directly to the four identified focal risk areas and regulate who is responsible for implementing the measures. For example, one of the packages of measures stipulates that a local diversity representative is to be appointed in Group companies with an increased risk in the field of action of diversity. This is to make it easier to address and remedy any violations.

### Employee rights in the Group companies

**GRI 403-1/-2/-3/-4/-5/-6/-7/-8/-9/-10** **GRI 405-1** **GRI 406-1**  
**GRI 407-1** **GRI 408-1** **GRI 409-1**

The Mercedes-Benz Group integrates and reviews the following employee rights in a systematised and risk-based manner in Group companies as part of its Group-wide Social Compliance Management System.

#### Remuneration and benefits

The Mercedes-Benz Group is committed to an appropriate wage that amounts at least to the legally prescribed minimum wage established under the applicable law and, in addition, enables employees to have a secure livelihood.

Worldwide, the Mercedes-Benz Group remunerates work performed in all Group companies according to the same principles. The Group's own global remuneration policy, which applies to all employee groups, defines framework conditions and minimum requirements for the design of remuneration systems, whose observance is checked through internal audits.

#### ↗ Attractive and transparent remuneration

#### Abolition of child labour

The Mercedes-Benz Group is strictly opposed to any kind of child labour as specified by the pertinent ILO Conventions number 138 and 182.

It is committed to the effective abolition of child labour and aligns its employer practices accordingly.

#### Working hours

The Mercedes-Benz Group applies the principle that working hours must comply with the respective local legislative requirements and the respective industry standards. It ensures, to the extent permitted by applicable law, that safe and healthy working conditions prevail, that work breaks, reasonable limitation of

working hours and regular paid rest and recreation leave are guaranteed, and that applicable international standards on working hours, but at least the relevant ILO agreements at the place of employment, are observed.

#### **Abolition of forced labour**

The Mercedes-Benz Group is strictly opposed to forced or compulsory labour and any form of slavery, including modern forms of slavery and human trafficking. All employer practices must, at the very least, be based on the ILO Core Labour Standards. Employment relationships are always voluntary in nature. All employment relationships can be terminated, provided there is an appropriate notice period.

According to local regulations, for example in Germany according to labour and collective agreements, workers receive remuneration at the agreed times. Every employee receives a salary statement, in which the remuneration and the statutory deductions (for example social security contributions) are presented in a transparent and comprehensible manner.

#### **Freedom of association and right to collective bargaining**

The Mercedes-Benz Group recognises the right of its employees to form employee representative bodies and to collective bargaining to regulate working conditions, as well as their right to strike, in accordance with the respective applicable law. The founding of a trade union recognised under the applicable law, joining one or membership in one, shall not be used as a reason for unjustified unequal treatment or retaliation.

#### **Occupational health and safety**

As an employer, the Mercedes-Benz Group ensures safety and health protection in the workplace at least within the framework of the applicable law. It supports continuous development to improve the working environment with the aim of preventing work-related accidents and illnesses.

[↗ Occupational health and safety](#)

[↗ Key figures Human Resources](#)

#### **Equal opportunities and protection against discrimination**

The Mercedes-Benz Group is committed to safeguarding equal opportunities among employees and refraining from

any form of discrimination. The Group is committed to the fair treatment of all employees and does not tolerate any form of discrimination or unjustified unequal treatment – for example on the basis of characteristics such as gender, descent, origin and nationality, religion and world view, political, social or trade union activity, sexual identity and orientation, physical or mental limitations or age.

[↗ Diversity and inclusion](#)

[↗ Key figures Human Resources](#)

#### **Measures in supply chains**

**GRI 3-3**

The Mercedes-Benz Group uses a variety of measures and concepts to ensure the fulfilment of its due diligence obligations in the supply chain. These include supplier screenings, audits, risk-based due diligence analyses and qualification modules for production material suppliers. The Mercedes-Benz Group uses these tools in order to increase the transparency of the supply chain and ensure that the internationally recognized human rights are upheld by business partners as well, and that other social standards and environmental requirements are met. Procurement units play a key role here.

[↗ Production materials](#)

#### **Production materials**

**GRI 414-1**

The procurement units systematically examine whether and to what extent their production material suppliers respect human rights.

For example, the Mercedes-Benz Cars Procurement and Supplier Quality unit evaluates suppliers on site before a possible order is placed. This is based on the Group's own sustainability standards. In particular, the auditors ask questions about social standards – for example working hours, remuneration and freedom of association. In countries with an increased risk of human rights violations, the unit monitors even more comprehensively: In such instances, the topics of child labour, occupational safety and free choice of employment form an integral part of the audit.

The Procurement department of Mercedes-Benz AG monitors the human rights compliance of direct suppliers of production materials. Procurement regularly conducts risk analyses that also include on-site CSR audits and an annual database research procedure.

Its objective here is to identify possible violations of sustainability and compliance rules at an early stage on the basis of the latest supplier data. Should any red flags be revealed, Mercedes-Benz Procurement initiates an extensive examination of the situation.

The Group asks the affected supplier a number of specific questions – for example about its sustainability management, its due diligence measures with regard to human rights issues or the involvement of its own suppliers. If deficiencies are found, it requires the supplier to improve the corresponding processes.

If the supplier does not sufficiently remedy the criticized processes, the company makes individual decisions regarding the next steps. In especially serious cases, these decisions can also be made by management bodies. As a last resort, this can also lead to the discontinuation of Mercedes-Benz AG's business relationship with a supplier.

For effective, sustainable supplier management, it is important that supplier ratings are comparable. To ensure this, the Group uses standardised instruments from external sources: One example of this is the industry-wide sustainability Self-Assessment Questionnaire developed by the European Drive Sustainability initiative. Mercedes-Benz AG requires all its suppliers to complete this questionnaire.

In order to reduce human rights risks in connection with the extraction and processing of raw materials in the supply chains of Mercedes-Benz AG, it is also gradually taking specific measures between now and 2028 for the 24 raw materials that are rated as critical. Read more in the [Mercedes-Benz Raw Materials Report](#).

## Services

### GRI 410-1

Service Procurement continuously evaluates the entire service portfolio. This is to identify product groups that pose an increased risk of human rights violations. The Group carries out this risk mapping on a regular basis in order to pick up on current developments and adjust the classification of risks. Service providers associated with increased risk are subject to a due diligence review. This enables their integrity to be examined and reveals potential for improvement. At the same time, the Group trains the suppliers concerned on the basis of specific

cases – it makes clear what its expectations are with regard to holistic processes for respecting human rights and which standards must be complied with.

In addition, IPS examines all of the existing service providers to examine their compliance with human rights standards. To this end, it conducts an annual database search on sustainability and compliance violations. Through the regular assessments, the Mercedes-Benz Group aims to detect violations at an early stage, prevent them and ensure that service providers remain vigilant.

If the database research discovers any suspicious activity, the procurement units initiate a more thorough investigation. If the service provider does not adequately improve the processes that have been criticised, the Group decides on the further steps to be taken on a case-by-case basis – in particularly serious cases also in management committees. This can ultimately lead to the Group parting ways with a service provider.

The Mercedes-Benz Group has concluded contracts for work and services with service providers for its own German locations. The requirements in these contracts often surpass those of the legal provisions. In particular, the Mercedes-Benz Group sets high standards for occupational health and safety, accommodation and remuneration, the use of temporary workers and the hiring of subcontractors. It also requires that no pseudo self-employment be allowed. These standards are relevant for all contracts covering more than two months that are physically executed on the business premises of Mercedes-Benz Group AG in Germany. All of the relevant work-for-hire contractors and service providers must declare in writing that they comply with these standards. They are only considered for orders if they fulfil this prerequisite. An audit team conducts reviews of selected services in order to determine whether the standards are met in Germany.

## Improving suppliers' awareness and qualifications

In order to successfully manage sustainability issues such as respect of human rights in the supply chain, having a common understanding of values is not the only important aspect. Know-how regarding the correct implementation of the applicable requirements is just as necessary. Accordingly, the Mercedes-Benz Group has been raising awareness and informing its suppliers

through appropriate training modules and – where appropriate – also as part of its cooperation with sustainability and human rights initiatives for many years.

Since 2018, the Mercedes-Benz Group has been cooperating with the Drive Sustainability initiative on the implementation of measures to make production material suppliers in various focus countries more aware of the importance of sustainability, for example by providing such suppliers with information on this issue. The Group selected the respective countries jointly with this initiative. As part of the training, suppliers are trained in human rights and working conditions, among other things – including topics such as working hours, fair remuneration, freedom of association and forced labour. During the reporting year, the training sessions scheduled for suppliers in Mexico and the USA were held as web-based events due to the COVID-19 pandemic.

Based on its sustainability standards for suppliers and its Integrity Code, the Mercedes-Benz Group has also developed the [Compliance Awareness Module](#). This publicly available training module helps suppliers to handle possible integrity- and compliance-related risks in a responsible manner. All suppliers can access this module via the Supplier Portal at any time. In addition, the Mercedes-Benz Group points out to them the possibility of recommending the module to their own business partners in the supply chain.

## Industry associations and initiatives

### GRI 2-28

The Mercedes-Benz Group has long been active in a variety of automotive and industry associations that address the issues of sustainability and human rights in the supply chain. These memberships help it to make complex supply chains more responsible through joint action. They include the following:

- **UN Global Compact:** The Mercedes-Benz Group is a member of the Compact and a participant in two of its Action Platforms (Decent Work in Global Supply Chains and Reporting).
- **German Global Compact Network:** The Mercedes-Benz Group participates in the Human Rights Peer Learning Group.

- **econsense – Forum for Sustainable Development of German Business e.V.:** The Mercedes-Benz Group is the theme sponsor for human rights issues and a member of the Human Rights & Value Added cluster.

- **World Business Council for Sustainable Development (WBCSD):** The Mercedes-Benz Group is a member of this global business initiative for sustainable development, where its activities include participation in programmes for the promotion of a circular economy and for business and human rights.

- **Responsible Supply Chain Initiative RSCI e.V. (RSCI):** The Mercedes-Benz Group is a founding member of this association initiated by the German Association of the Automotive Industry (VDA). The RSCI aims to help all players in the automotive industry use on-site inspections and corresponding follow-up measures to improve and further develop the sustainability of their supply chains. Among other activities, the RSCI is developing a standardised monitoring mechanism in order to evaluate companies' sustainability performance.

- **Drive Sustainability:** The Mercedes-Benz Group is a LEAD partner of the Drive Sustainability initiative of the European automotive industry, which promotes sustainability in the supply chain. Shared guidelines – the Automotive Industry Guiding Principles to Enhance Sustainability Performance in the Supply Chain – play an important role here. These guidelines were updated and published in the reporting year. The [Raw Materials Outlook](#) published in 2021 has been further expanded and is used as a basis for the collaboration with stakeholders.

- **Automotive industry dialogue in the National Action Plan on Business and Human Rights (NAP):** The Mercedes-Benz Group actively participates in the NAP dialogue of the automotive industry. The aim is to work together with representatives from civil society, academia and politics, business and associations to develop solutions to strengthen human rights in value chains. For example, in the reporting year, [instructions](#) on the implementation of the five core elements of human rights due diligence in the automotive sector were developed and published.

- **Catena-X:** Since 2021, the Mercedes-Benz Group has been involved in the cooperation project [Catena-X](#). The aim is to enable secure and cross-company data exchange between all participants in the automotive value chain. In the year under review, more than 100 companies joined this collaborative project to advance the digitisation of automotive supply chains. Catena-X should, among other things, support the Mercedes-Benz Group to verify whether and to what extent suppliers comply with prescribed sustainability requirements. This is made possible by completing the data chain to the upstream and downstream stages of the value chain, from the mines of the raw materials to the recyclers, with information that provides insights on aspects relevant to human rights – for example the origin of the respective raw materials or mining certifications.

↗ [Involvement in raw material initiatives](#)  
↗ [Memberships, associations and initiatives](#)

## Effectiveness and results

GRI 3-3

### Group companies

During the reporting period, the Mercedes-Benz Group reviewed its measures in the area of human rights and adjusted its management approach as needed.

In 2022, the Mercedes-Benz Group introduced packages of measures for all main risk areas in Group companies based on their individual risk ratings. A concept for the annual review of the allocated measures is currently being developed within the framework of the Social CMS. In this way, the Mercedes-Benz Group wants to ensure that its human rights approach for Group companies is effective and efficient and that the methods and processes are advanced continuously.

The Group also uses the annual “Sustainability Dialogue” to evaluate the effectiveness of the approach: at this event, it presents progress as well as challenges and discusses them with representatives from business, politics and society. The specialist units subsequently evaluate the results and the stakeholders’ suggestions and incorporate them into their work processes. In addition, the results are published on the [Group’s website](#).

### Supply chains

GRI 407-1 GRI 408-1 GRI 409-1 GRI 414-2

The Mercedes-Benz Group uses comprehensive measures to ensure that production materials as well as services are procured worldwide in line with sustainability standards. In doing so, it considers it important to regularly review the effectiveness of the measures and realign or further develop them if necessary.

### Production materials

In the reporting period, the Mercedes-Benz Group published its Responsible Sourcing Standards. In addition, it further developed tools and processes with which it reviews its direct suppliers in general and as well as its high-risk raw material supply chains in particular.

The Mercedes-Benz AG also continued to conduct audits at production material suppliers in 2022, when a total of 825 on-site audits were completed. Some of these audits were conducted virtually due to the Covid-19 pandemic. Among other things, there were apparent issues in the units Disclosure of Sustainability Requirements, Compliance and Business Ethics, Work Safety and Working Hours. The on-site audits at the direct suppliers of Mercedes-Benz AG revealed no suspected cases of child or forced labour and one indication of violations of the right to collective bargaining or freedom of association in the reporting year.

Since 2018, the audit and consulting company RCS Global has been creating transparency for Mercedes-Benz on the complex cobalt supply chains of battery cells and auditing them across all stages in accordance with OECD due diligence guidelines. After initial [progress](#) in the cobalt supply chains, the commitment was extended to other battery raw materials in 2022 – specifically to lithium, nickel, graphite, manganese and copper. The Mercedes-Benz Group also wants to increase transparency and conduct audits in these supply chains. In addition, the audit scope of human rights aspects is expanded to include environmental aspects.

↗ [Battery](#)

Through the end of 2022, the Mercedes-Benz Group continued to assess raw materials with an increased risk of human rights violations and thereby achieved its intended target for 2022.

During the reporting period, it completed the assessment of the critical raw material aluminium. The identified and prioritised risk areas include: modern slavery (including forced labour), community rights and indigenous rights, and environmental risks with impact on human rights. The Mercedes-Benz Group intends to further supplement the [measures already in place](#) in 2023 according to the risk profile.

Furthermore, Mercedes-Benz AG as part of the new awarding of contracts for selected components containing aluminium (aluminium raw materials, wheels and battery housings) has been reviewing the corporate due diligence measures of potential Tier-1 suppliers in raw material supply chains since 2022. If it is not adequately performed, the company requires obligatory measures as a prerequisite for contract awards.

The Mercedes-Benz Group has set itself the goal of assessing all [24 critical raw materials](#) by 2028. In the reporting year, the Group also made progress on raw materials, which have not yet been conclusively assessed: For example, it collected important data required for the assessment – on reserves, production quantities, extraction and processing of the raw materials, as well as on the trade with them.

### **Service providers**

[During the year under review, the on-site audits and screenings of direct suppliers of the Mercedes-Benz Group that were conducted by IPS discovered no specific suspected cases of child labour or forced labour, nor were there any indications of violations of the right to collective bargaining or freedom of association.](#)



Social commitment

## Materiality and goals

GRI 3-3

Targets	Target horizon
Create a recognisable benefit for the common good at the own locations and for global society in general	Ongoing
Reinforce the positive public perception	Ongoing

Mobility has always moved people. It represents freedom, independence and economic growth. But mobility not only moves, it also connects people and cultures around the world – and thus contributes to a more open society.

The Mercedes-Benz Group as a corporate group is also part of society. The Group can only be successful if it operates in an environment where people can realise their ideas of a good life. In particular, a high level of education and a high degree of economic and social stability are key prerequisites for this. That is why the Group together with its employees is committed to a sustainable and future-oriented society.

# Corporate citizenship

## Strategy and concepts

### Corporate citizenship commitment

GRI 3-3 GRI 203-1

The Mercedes-Benz Group as a company is also part of society and thus also holds social responsibility. The  **corporate citizenship** activities are based on three pillars: "Around the world" "With our employees" and "For our locations".

In the reporting year, the Mercedes-Benz Group further detailed the action fields for its global corporate citizenship commitment: The commitment to environmental sustainability, social cohesion and disaster support is at the centre of this realignment.

In line with its sustainable business strategy, the Mercedes-Benz Group chooses to support projects and activities that are related to its core business as part of its social commitment. In addition, the Group encourages its employees to become involved in environmental and social projects, to help shape the social environment of the locations and to initiate and support aid projects worldwide.

### Extensive commitment – from donations to corporate volunteering

GRI 2-23/-24 GRI 3-3

The Mercedes-Benz Group's commitment in the area of corporate citizenship includes donations to charitable institutions, sponsoring of environmental and social projects, the personal commitment of employees (corporate volunteering), self-initiated projects and foundations. The Donations and Sponsorship Committee of the Board of Management manages the Group's donations and sponsorships. The Daimler and Benz Foundation, the Laureus Sport for Good Foundation and the Mercedes-Benz Foundation are responsible for additional social activities, which they manage autonomously.

Throughout the Group, donation recipients and sponsorship projects are selected in line with the criteria and standards of the Group's donation and sponsorship policy, which was last updated in May 2021. It stipulates that all donations and sponsorships must comply with applicable national and international law, meet ethical requirements and be in line with the Group's values. The allocation process is designed to be traceable for both in-kind and cash contributions – for example, all of the Group's donations and sponsorships worldwide are recorded in a central database.

The Mercedes-Benz Group observes the Group's corporate policy and follows the principles of the  **UN Global Compact** when implementing donations, sponsorships, corporate volunteering and self-initiated projects. It also regularly informs employees about the applicable policies. It also sensitises employees to possible risks in the area of donations and sponsorships.

## Measures

### Around the world

The social commitment of the Mercedes-Benz Group extends across the entire globe. With its activities, the Group above all wants to improve the prospects of future generations – and sees education in particular as a central key to this.

### Fellowship programme for young people

 **"beVisioneers – The Mercedes-Benz Fellowship"** – this is the name under which The DO School Fellowships gGmbH (The DO School) has designed a support programme. It is funded by Mercedes-Benz AG through donations to The DO School and implemented by the organization's team of experts. Mercedes-Benz AG chose The DO School after a multi-stage selection process and based on the organization's experience and expertise in designing and implementing global support programmes.

In order to be selected by The DO School for the sponsorship programme, applicants must, among other things, present a project idea that has a measurable, positive influence on the applicant's environment and local community. The fellows selected for the first cycle of the programme from summer 2023 to 2024 are expected to participate in a twelve-month educational and skills development training course that focuses particularly on leadership, entrepreneurship and sustainability. Furthermore, the mentors are supposed to support the fellows in the implementation of their projects. The fellows should be granted access to project financing and to financial grants if needed. The "beVisioneers" fellowship is scheduled to start in June 2023 with a first group of fellows from India, South Africa and a number of European countries. Plans call for the fellowship programme to be expanded to further regions in the subsequent years, with up to 1,000 participants worldwide.

The programme's long-term goal is to build a global community of people whose sustainability projects have a positive impact on the environment.

The programme is being funded by the proceeds from the auction of a Mercedes-Benz 300 SLR Uhlenhaut Coupé from 1955 during the reporting year. The vehicle was sold for €135 million. Most of the auction proceeds are used to secure the programme's funding through annual donations to The DO Fellowship gGmbH.

### Aid for Ukraine

With the start of the Russian war of aggression on Ukraine, the Mercedes-Benz Group supported the people in and from Ukraine with a variety of activities. In total, the monetary donations and in-kind donations of the Mercedes-Benz Group to aid Ukraine amounted to more than €6 million.

Mercedes-Benz Group AG supported the "German Red Cross" (DRK) with €1 million to provide humanitarian aid in Ukraine. Mercedes-Benz AG donated €1 million to the "SOS Children's Villages worldwide", which perform trauma education work in Ukraine; the same amount is to be donated to the SOS Children's Villages

worldwide again in the course of 2023. In addition, Mercedes-Benz AG donated more than 50 vehicles to the "German Red Cross", "Caritas" and "SOS Children's Villages worldwide" in close coordination with the local aid organisations.

Numerous entities of the Group around the world have also donated and shown their solidarity with the people in and from Ukraine. This help ranged from donations of goods and food to support in transporting refugees and supplies.

### **Strengthening of human rights, prevention of child labour**

The Mercedes-Benz Group considers it its duty to go beyond being compliant with the German Supply Chain Sourcing Obligations Act (LkSG) and to make a positive impact in the regions where production materials are sourced. Mercedes-Benz AG, therefore, supports social projects in the supply chain environment. One of its main focuses is on preventing child labour. For this purpose, the Group cooperates with two [non-governmental organisations \(NGOs\)](#): on the one hand with "Bon Pasteur" in the Democratic Republic of Congo, where the focus of the cooperation is on the cobalt mining region; on the other hand with "Terre des Hommes" in India, where the focus is on the mica mines in Jharkhand.

The aim of both cooperations is to present the people of the local mining communities with alternative income opportunities – for example in (sustainable) agriculture. The main focus of both projects is on creating educational opportunities and improved learning conditions. For this, community members are for example informed about their rights, and especially about children's rights, in order to uphold the human rights of the local population as a whole. Terre des Homes, furthermore, supports local institutions and cooperates with the media in order to create awareness for child labour on a political level.

### [Employee rights in the Group companies](#)

Mercedes-Benz AG has extended both projects by three years until 2025.

### **Making children more aware of traffic safety**

The Mercedes-Benz Group is committed to improving children's safety in road traffic as part of its international initiative  “**MobileKids**”. This project is not only for children, but also for adults as well as schools and other educational institutions. With comprehensive information and learning material, the Group helps to ensure that children can behave safely in road traffic. The associated website was extensively revised in the reporting year: on the one hand, new content was created that is specifically aimed at teachers and parents; on the other hand, there are now numerous informational videos for children on the website.

In India, MobileKids reached around 4,000 children from grades 4 to 6 in 32 schools in Bangalore and Pune in the reporting year. The highlight was the interactive training sessions on the topic of traffic safety, which were conducted by around 350 employees from Mercedes-Benz Research and Development India. To this end, interactive collages on the topic were created, the safety features of the MobileKids bus were presented, a traffic safety pledge was taken and reflective MobileKids school bags were distributed – all done with the goal of making the pupils act responsibly on the road.

#### **Raising awareness of traffic safety**

### **Replanting of mangroves to benefit people and the environment**

Many mangrove forests have suffered from overuse in recent years or have been destroyed. In response, Mercedes-Benz AG supports the project “Sustainable Aquaculture in Mangrove Ecosystems (SAIME)” of the “Global Nature Fund” for the protection and restoration of mangrove forests in South Asia (India, Bangladesh, Sri Lanka and the Maldives).

The aim of the project is to restore the forests and thus contribute to climate protection, as well as to create alternative income opportunities for the local population. For example by combining shrimp farming with mangrove protection (integrated mangrove aquacultures): as part of this, mangrove trees are planted directly in the shrimp ponds in order to benefit from a variety of positive synergy effects. The trees stabilise the dykes, protect the ponds from flooding and offer shade. The falling leaves also provide feed for the

shrimp. The trees enhance the biodiversity of the shrimp farm. In seven tree nurseries, supporters of “SAIME” have already grown more than 335,000 mangrove seedlings. These were planted in 20 pilot farms, used for bank reinforcement and sold to generate income. The pilot farms are also used for training and as a source of inspiration for the small farmers from the surrounding region, so that this method can become more widespread.

### **Worldwide foundation activities**

With the foundations established by the Mercedes-Benz Group, it promotes projects in the fields of science, research, technology, education, training and sport all over the world.

#### **Laureus Sport for Good Foundation: Supporting children and teenagers**

For more than 20 years, the Mercedes-Benz Group has been helping children and young people to overcome violence, discrimination and disadvantage through the “Laureus Sport for Good” Foundation, encouraging them to take control of their lives, set themselves goals and achieve them. The foundation believes in the power of sport to connect and motivate people. This is because sport mobilises people and strongly promotes a sense of community. Differences in religion, skin colour, gender and place of origin lose all significance.

Since its creation in 2000, Laureus has supported almost six million children and teenagers. There are now over 275 Laureus projects under way in more than 50 countries.

#### **Daimler and Benz Foundation: Strengthening science**

The “Daimler and Benz Foundation” supports multidisciplinary scientific dialogue and interdisciplinary research projects. The foundation’s scholarship programme supports outstanding young scientists from all disciplines. In the reporting year, eleven new scholarships were awarded, and a total of 37 post-doctoral researchers and junior professors were funded. In various formats, the Foundation examines research topics relevant to the future and contributes to strengthening the visibility and public acceptance of science through lecture series.

## Mercedes-Benz Fund: Promoting scientific research

It is important to the Group to promote scientific research regardless of economic interests. That is why the  “Mercedes-Benz Fund” (formerly “Daimler Fund”) was established as an unincorporated foundation in the “Stifterverband”, a joint initiative of companies and foundations which provides holistic advice, networking and support in the areas of education, science and innovation. The Mercedes-Benz Foundation focuses on three areas: structural problems in research and teaching, engineering sciences and international and scientific cooperation. Since its creation in 1993, it has helped to establish 27 endowed professorships and assistant professorships in Germany and abroad.

## With our employees

Not only the Mercedes-Benz Group is showing social commitment, but also its employees: they volunteer for many social and environmental projects.

## Employees donate part of their monthly salary

One example of employee commitment is the “ProCent” initiative: this allows employees to donate the cent amounts of their monthly salary. The Mercedes-Benz Group doubles these amounts and collects them in a support fund. Employees propose projects that are to receive money from this fund. Since its launch, “ProCent” has supported a total of around 1,800 projects with more than €12.3 million.

These include a training workshop for automobile mechanics in Mbeya (Tanzania): with the funds from “ProCent”, five new machines were purchased including a hydraulic hoist and a battery charger. The new equipment enables training at a high technical level. Due to the explosive growth of vehicle ownership in the region, the training opens up career prospects for the young people.

## ProCent funding priorities



In addition, the Kirchentellinsfurt-Kusterdingen chapter of the German Red Cross received money from the fund to set up a drone squadron for its rapid response group: the donation enabled the purchase of two modern drones and the professional training of the squadron members.

### **Employees become active themselves**

On the “Social Days” and “Days of Caring”, the employees themselves lend a hand with social and environmental projects.

For example, in April 2022 more than 600 employees of Mercedes-Benz USA, LLC took part in the National Volunteer Week. Among others, they supported the national non-profit organisations “Safe Kids Worldwide” and “Junior Achievement USA” during this period. In total, employees volunteered at 26 events at seven locations:

Together with Safe Kids Worldwide, the Mercedes-Benz Group organised virtual readings and raised awareness about child pool safety and assembled 600 summer safety kits that were distributed to local families. These included water bottles, bicycle bells, a family activity guide and information on swimming safety.

In cooperation with Junior Achievement, eight (virtual) career fairs were held at schools in Georgia, New Jersey, California and Florida. Employees mentored young sixth-graders and gave the young students an insight into their professional world, while also helping them to go through a simulation in which they had to manage a company for a day.

In the reporting year, Mercedes-Benz USA, LLC also launched the new national corporate citizenship programme “Driving Your Future”: The aim is to nurture the next generation through educational programmes in technology, sustainability and career preparation. To support this programme, employees volunteered over 9,500 hours at 175 volunteer events. At one of these events, they handed out 760 backpacks with school materials and 300 experimenting kits covering topics from the **MINT** areas to students in need in the local communities.

In addition, 110 employees of Mercedes-Benz Financial Services Ceská republika s.r.o., Mercedes-Benz Credit Pénzügyi Szolgáltató Hungary Zrt. and Mercedes-Benz Financial Services Slovakia s.r.o.CZ joined forces: Together they planted 50 trees in Budapest on the “Day of Caring”, working with the partner organisation “Woodapest Egyesület”, which will ensure the maintenance of the planted trees with the associated corporate donation.

### **For our locations**

#### **GRI 413-1**

At its locations worldwide, the Mercedes-Benz Group supports social development through a variety of different projects.

### **Commitment in South Korea**

With the “Mercedes-Benz Promise” initiative, Mercedes-Benz Korea Limited has been committed to the common good in South Korea already since 2014. Mercedes-Benz Korea donates to the “Kids & Future Foundation” each year based on the number of new vehicle sales in South Korea. With donations in the amount of about €2 million in the reporting year, it sponsors a total of five programmes developed together with the foundation:

In addition to the “Mercedes-Benz MobileKids” programme, there is the “Mercedes-Benz Mobile Academy” programme, which offers students training, mentoring and insights into production processes. The programmes “Mercedes-Benz All Together” and “Mercedes-Benz Give” support the local communities with charity runs, employee volunteering and an education fund for children and youths in social institutions.

The “GREEN+” programme promotes activities aimed at CO<sub>2</sub> neutrality on the balance sheet and sustainable growth. The educational programme “GREEN+Kids”, which is part of it, teaches primary school pupils how serious climate change is and shows them habits that help to protect the environment. The grant funds in this programme are furthermore used for disaster relief: a large forest fire broke out on the east coast of South Korea in March 2022. The funds were used to help the victims in the form of immediate donations and to support the rebuilding of the area.

## Disaster relief in Australia

As a result of weeks of heavy rainfall, Australia experienced massive flooding in the first half of 2022. South-eastern Queensland and northern New South Wales were particularly affected. Tens of thousands of people had to be evacuated; numerous buildings were destroyed. Mercedes-Benz Australia/Pacific Pty Ltd. and Mercedes-Benz Financial Services Australia supported the emergency relief and recovery efforts in the affected communities by donating a total of €60,000 to the Australian Red Cross.

## Raising children's enthusiasm for natural sciences and technology

The Germany-wide MINT education initiative [“Genius – The Young Knowledge Community of Mercedes-Benz”](#) has been in existence for over ten years. Under the motto “More Curiosity – More Future”, it sets out to make children and young people enthusiastic about science, engineering and technology.

Among other things, teachers are given access to up-to-date, practical and digital teaching materials on technical topics. In addition, Genius organises nationwide teacher training courses and technology workshops for young people, addressing topics related to technologies and mobility of the future.

Whether it be fuel cells, Factory 56 or the cell technology centre: in 2022, the Genius children's journalists reported on-site in several articles, interviewed experts and took a look behind the scenes.

Employees of Mercedes-Benz Group AG became involved as Genius ambassadors at the teacher training courses and technology workshops of the locations.

On the Genius homepage, under the heading “exciting knowledge”, those interested can find interesting blog posts on new innovations, phenomena from nature and technology or particularly sustainable and environmentally friendly developments.

## Effectiveness and results

### Effectiveness of the management approach

#### GRI 3-3

The Mercedes-Benz Group reviews the effectiveness of its social commitment in different ways: Among other things, it monitors the projects and is in regular contact with partners and funding recipients. Project status reports, annual reports and agreed-upon key figures enable the Group to determine the progress of the respective projects. In selected cases, the Mercedes-Benz Group reviews and evaluates the project results and the effectiveness of its support measures on-site.

### Results

In the reporting year, the Mercedes-Benz Group gave around €47 million in donations to charitable institutions and investments in sponsorships for social projects. This sum does not include its own foundation activities or projects initiated by the Group itself. The money for the donations and sponsorships is distributed as follows among the areas:

### Donations and sponsorships



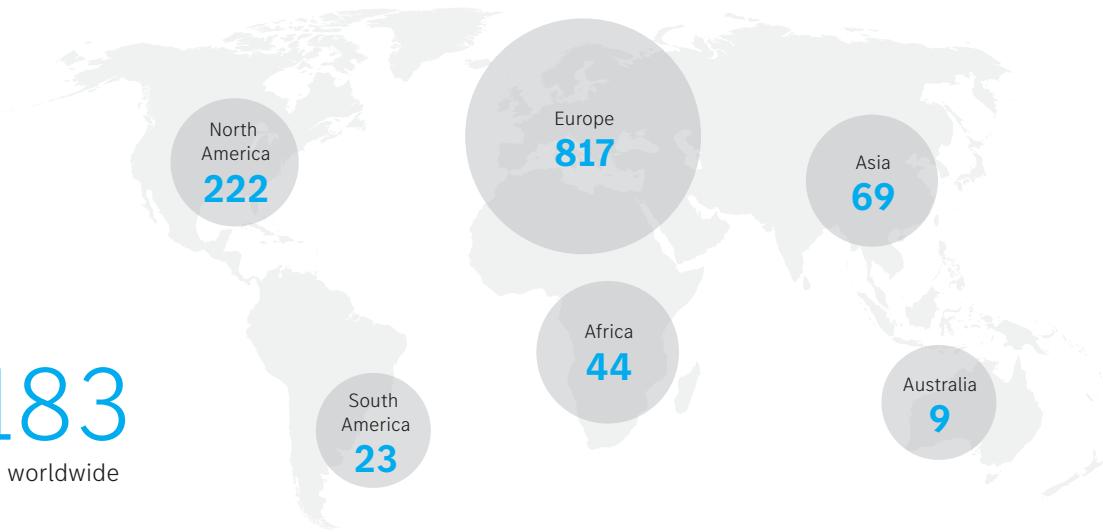
- 73% Social issues and community
- 16% Education
- 8% Science and the environment
- 2% Art and culture
- 0% Political dialogue

In total, the Mercedes-Benz Group supported around 1,200 projects worldwide.

**Effective social commitment**

**1,183**

projects worldwide  
in total



# FACTS & FIGURES

# Report profile

## GRI 2-2/-3

In this Sustainability Report, the Mercedes-Benz Group takes stock of the significant effects of its corporate activities in 2022 and presents its current target programme. This report is available online and as a PDF document. Special features of the online report include: a search function, a detailed GRI index, linked to the relevant places in the report, SASB and TCFD reports for download, a glossary of technical terms and a key indicator tool. With this key indicator tool, readers can compile tables according to their respective information needs. In both the online and PDF versions, a wide range of content is directly linked to the Annual Report 2022.

The PDF version of the report summarises all content in one document. Required topics and information can be accessed directly by chapter. The PDF file also contains numerous links to additional online information.

## Corporate structure

### GRI 2-1/-2/-3/-6

Mercedes-Benz Group AG is the parent company of the Mercedes-Benz Group and has its headquarters in Stuttgart. Daimler AG was renamed Mercedes-Benz Group AG with effect from 1 February 2022. In addition to Mercedes-Benz Group AG, the Mercedes-Benz Group includes all subsidiaries over which Mercedes-Benz Group AG can directly or indirectly exercise a controlling influence. Detailed information can be found in the list of shareholdings pursuant to § 313 of the German Commercial Code (HGB) in the Annual Report 2022, Notes to the Consolidated Financial Statements. In close cooperation with Mercedes-Benz AG as the operating business entity, Mercedes-Benz Group AG decides on the strategy of the Group, exercises the management of the Group and, as Group parent company, ensures the regulatory, legal and compliance functions throughout the Group.

With the entry in the Commercial Register on 9 December 2021, the spin-off and hive-down of the Daimler commercial vehicle business was completed and the Daimler commercial vehicle business was deconsolidated. As a result, the structure of the Group changed: the operating activities of the Mercedes-Benz Group are managed by the Mercedes-Benz Cars, Mercedes-Benz Vans and Mercedes-Benz Mobility divisions.

The Mercedes-Benz Group sells vehicles and services in almost every country in the world and has over 30 production facilities in Europe, North and Latin America, Asia and Africa. The Group is continuously developing the global production network on these four continents, aligning its global production network to manufacture the repositioned product portfolio with a focus on electric vehicles in the luxury segment. At the same time, the global battery production network is being set up on three continents.

Mercedes-Benz AG is responsible for the Mercedes-Benz Cars and Mercedes-Benz Vans divisions with its brands Mercedes-Benz, Mercedes-AMG, Mercedes-Maybach, Mercedes-EQ and Mercedes me. Mercedes-Benz Mobility AG encompasses financing, leasing and insurance services that are closely linked to mobility services such as fleet management, rental services and holdings in on-demand mobility services.

As in the financial reporting, the information in this Sustainability Report relates to the entire Mercedes-Benz Group and its segments. All production-relevant majority holdings of the company are fully included in the calculation at 100%.

The reporting period corresponds to the financial year of the Mercedes-Benz Group, which runs from 1 January to 31 December. It also corresponds to the period covered by the Annual Report.

## GRI standards

In 2006, the Mercedes-Benz Group (then Daimler) joined the multi-stakeholder network of the Global Reporting Initiative (GRI), where it was initially active as an Organisational Stakeholder, followed by membership in the Gold Community and currently as a member of the GRI Community. The Mercedes-Benz Group does its reporting in accordance with the GRI standards for the period from 1 January to 31 December.

[↗ GRI Index](#)

## What has changed in this report?

[GRI 2-4](#)

[GRI 3-2](#)

This report is based on the sustainable business strategy of the Mercedes-Benz Group. It is divided into "Foreword", the chapters "Governance", "Environment" and "Social", and the section "Facts & Figures".

External developments and trends in the area of sustainability are brought into context with internal strategies and measures for the areas of "Governance", "Environment" and "Social".

This is followed by a detailed presentation of objectives, due diligence approach, measures and achievements in the year 2022. The report was prepared in accordance with the relevant standards. To give readers a quicker overview, the content structure is classified in accordance with the [⌚ ESG](#) thematic fields. These were assigned the six fields of action and the three enabler topics of the Mercedes-Benz Group, which as cross-cutting topics can also have an effect on the fields of action. The fields of action include: "Climate protection & air quality", "Resource conservation", "Sustainable urban mobility", "Traffic safety", "Data responsibility" and "Human rights". The enabler topics are: "Integrity", "People" and "Partnerships". The overall management of the sustainability activities of the Mercedes-Benz Group is described in the section "Sustainable corporate governance". Based on the materiality analysis for 2022, the chapter "Sustainable corporate governance" for the first time presents the key topics differentiated with the respective sub-topics. In addition to the strategic fields of action and enablers, the company presents its

measures in the area of "social engagement" in another separate chapter.

### [↗ Materiality analysis](#)

Due to the spin-off and hive-down of the Daimler commercial vehicle business as an independent company in December 2021, the values for the financial years 2021 and 2022 are not comparable with those of previous years. Therefore, this report only shows the key figures of the past two years in the key figure tables. If the company calculates specific values for the individual divisions, more reporting periods may be presented.

## Reporting principles

[GRI 2-14](#)

[GRI 3-1](#)

The Mercedes-Benz Group acknowledges its responsibility for the content of the Sustainability Report 2022. The Board of Management of the company has tasked the Disclosure Committee, which is also responsible for the financial reporting, with overseeing the compilation of the information in the Sustainability Report 2022 to the best of its knowledge and belief and free from material errors or omissions – in consideration of the nature of the business activity, the relevant information process, the nature of the information and the measurement, calculation or estimation methods used. To ensure the completeness of the information, corresponding omission statements in accordance with the GRI requirements were written wherever the available data may have been insufficient.

In order to determine which sustainability topics are particularly relevant for the Mercedes-Benz Group and its stakeholders, the company performed a comprehensive materiality analysis in 2022.

### [↗ Materiality analysis](#)

In the opinion of the company, the information presented on this basis is balanced, appropriate and complete in relation to the key topics. Facts which are considered relevant in accordance with the legal definition of materiality are part of the Non-Financial Declaration for 2022.

[⌚ Non-Financial Declaration, AR 2022](#)

## Certified according to ISAE 3000

GRI 2-5

The company has engaged KPMG AG Wirtschaftsprüfungsgesellschaft auditing firm to perform a limited assurance engagement on the Mercedes-Benz Group Sustainability Report. The audit was based on the “International Standard on Assurance Engagements 3000: Assurance Engagements Other than Audits or Reviews of Historical Financial Information” (ISAE 3000). This standard is published by the International Auditing and Assurance Standards Board (IAASB). The focus of the audit was at the corporate level. In addition, random samples were audited at individual factories. The following information was assessed:

- Information on CO<sub>2</sub> emissions (Scope 1, Scope 2 and selected Scope 3) in the following tables and graphs:
  - “CO<sub>2</sub> emissions from energy consumption”
  - “Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tonnes per vehicle Mercedes-Benz Cars 2022”
  - “Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tonnes per vehicle Mercedes-Benz Vans 2022”
  - “Scope 1, 2 and 3 emissions worldwide Mercedes-Benz Cars”
  - “Scope 1, 2 and 3 emissions worldwide Mercedes-Benz Vans”,  
[↗ Calculation of CO<sub>2</sub> emissions](#)
- information on energy consumption in the table „Energy consumption“,  
[↗ Key figures of operational environmental protection](#)
- information on water withdrawal in the table „Water withdrawal“,  
[↗ Key figures of operational environmental protection](#)
- information on quantities of waste in the table „Waste by waste category“,  
[↗ Key figures of operational environmental protection](#)
- information in the Annex “Calculation and documentation of CO<sub>2</sub> emissions”,  
[↗ Calculation and documentation of CO<sub>2</sub> emissions](#)

- information on the proportion of suppliers who have signed the “Ambition Letter” in the chapter “Climate protection in the supply chain > effectiveness and results”,  
[↗ Effectiveness and results](#)

- information on the frequency of accidents at production sites in the table “accident frequency”, and  
[↗ Effectiveness and results](#)

- information on the EU taxonomy in the tables of the chapter [↗ EU taxonomy](#).  
[↗ EU taxonomy](#)

In accordance with Sections 315b and 315c of the German Commercial Code (HGB), the Mercedes-Benz Group reports on non-financial matters in its combined management report, which was audited with reasonable assurance by KPMG AG Wirtschaftsprüfungsgesellschaft as part of the audit of the company’s financial statements. Exceptions are the data on EU taxonomy, accident indicators and the “ambition letter” as well as the key figures for CO<sub>2</sub> emissions in production (Scope 1 and 2), which were audited in order to obtain limited assurance as part of a separate assurance engagement of the sustainability report.

This Sustainability Report also includes the content audited in the Non-Financial Declaration. The relevant passages in this Sustainability Report are marked in blue font colour in the continuous text. Audited graphs and tables are also referenced accordingly via footnotes. Unless explicitly noted, this content was audited with reasonable assurance. Unless marked with footnotes, graphs and tables have not undergone external audit, regardless of the colors used.

[↗ Non-Financial Declaration, AR 2022](#)

Upon completion of the examination, the company received an audit opinion. It documents the objective, purpose and basis of the audit, the work performed and the conclusions reached. The internal reporting on this is conducted by the Group Sustainability Board.

[↗ Auditor’s report](#)

## Non-Financial Declaration (NFD)

In accordance with Sections 315b and 315c of the German Commercial Code (HGB), the Mercedes-Benz Group reports on non-financial matters in its combined management report, which was audited with reasonable assurance by KPMG AG Wirtschaftsprüfungsgesellschaft as part of the audit of the company's financial statements. Exceptions are the data on EU taxonomy, accident indicators and the "ambition letter" as well as the key figures for CO<sub>2</sub> emissions in production (Scope 1 and 2), which were audited in order to obtain limited assurance as part of a separate assurance engagement of the sustainability report.

⊕ [Non-Financial Declaration, AR 2022](#)

## Progress report UN Global Compact

The Mercedes-Benz Group is committed to the ten principles of the UN Global Compact. The Mercedes-Benz Group (Daimler at that time) was one of the first signatories of the [⊕ UN Global Compact](#) and is involved in thematic and regional working groups and initiatives of the UN Global Compact. In the reporting year, these included the so-called Action Platforms "Reporting on the SDGs" and "Decent Work in Global Supply Chains" as well as the German Global Compact Network. This sustainability report is an essential basis for complying with the new reporting obligation for the reporting year 2022. Therefore, the company continues to report on its initiatives in the areas of human rights, labour standards and workers' rights, environmental protection and anti-corruption in this report. In July 2022, the Mercedes-Benz Group published the Sustainability Report 2021 together with the document "Realising the Blueprint: Corporate Action Plan" as the official communication on progress to the UN Global Compact. The Mercedes-Benz Group plans to present the next communication on progress in April 2023.

## Reporting process and quality assurance

The Mercedes-Benz Group reviews its goals, measures and fields of action in an internal process and carries out detailed benchmark analyses. This year, for the first

time, the company's Board of Management tasked the Disclosure Committee, which is also responsible for the financial reporting, with overseeing the compilation of the information in the Sustainability Report 2022 to the best of its knowledge and belief and free from material error or omission – taking into account the nature of the business activity, the relevant information process, the nature of the information and the measurement, calculation or estimation methods used.

## Scope of reporting and data acquisition methods

GRI 2-2

### Economic data

The information about economic relationships presented in the Sustainability Report 2022 is based on data from the Mercedes-Benz Group Annual Report 2022. The financial statements of the Mercedes-Benz Group and the combined management report for Mercedes-Benz Group AG and the Group for 2022 were audited by KPMG AG Wirtschaftsprüfungsgesellschaft, which has issued an unqualified audit opinion.

⊕ [Annual Report 2022](#)

### Data on people

The facts and figures in the "People" chapter correspond to those in the Mercedes-Benz Group Annual Report 2022. The reporting on human resources data is based mainly on the HR eData and HR ePARS personnel planning and reporting systems. The data of all consolidated companies of the corporation worldwide flow into both systems. The basis is provided by the respective local HR systems. For Germany, this is "ePeople". In the texts and graphics, the Mercedes-Benz Group states whether information relates to the entire company or only to subdivisions.

### Data collection on operational environmental protection

Included are all the production locations in which the Mercedes-Benz Group is a majority shareholder, as well as the German and European locations of the logistics, service and sales units. The locations of Mercedes-Benz Mobility AG are not taken into account. For this reason, the timelines may differ from those of previously

published data. New locations are taken into account from the date of series production. The environmental data for 2022 refer to a total of 40 manufacturing sites as well as other areas from research and development, logistics and sales.

### Specific environmental and energy data

Resource consumption and emissions are largely dependent on production volume. Therefore, the company calculates specific values for the individual divisions. For this purpose, the number of vehicles of the segment manufactured in the consolidated plants is referenced to the corresponding data of the production plants. The company collects the specific values from the Cars and Vans divisions in accordance with the business segment classification valid since 2006. Individual strings of numbers also include data from previous years; this is then shown accordingly. The specific data gained in this way can only represent general benchmarks, because they do not consider the different ways in which the vertical integration of production has developed, the diversity of products or the special features of the production network, which in some cases spans divisions.

### Editorial notes

GRI 2-3

In the context of gender-neutral language, the Mercedes-Benz Group prefers to use gender-neutral terms in the report, as well as both the feminine and masculine forms in various places. Composites are an exception in the interest of better readability. However, this explicitly refers to all genders.

The report is available in German and English. In case of discrepancies between the versions, the German document shall prevail.

### EU Taxonomy

The [EU taxonomy](#) regulation and the adopted delegated acts along with the supplementary interpretation documents of the European Commission contain formulations and terms that are still subject to considerable uncertainties and for which clarifications have not yet been published in all cases. Among others, this refers to the classification of economic activities,

interpretation of do-no-significant-harm-criteria and to the assessment of the economic substance of financial investments. Due to the immanent risk that uncertain legal terms could be differently interpreted, uncertainty is attached to the legal certainty of the interpretation.

### Statements regarding electricity and fuel consumption and CO<sub>2</sub> emissions

The consumption was determined on the basis of the regulation 2017/1151/EU. Further information on official fuel consumption and on the official specific CO<sub>2</sub> emissions of new cars can be taken from [“Leitfaden über den Kraftstoffverbrauch, die CO<sub>2</sub>-Emissionen und den Stromverbrauch neuer Personenkraftwagen”](#).

The Mercedes-Benz Group published its last Sustainability Report on 21 March 2022. The report for the reporting year 2022 will be published on 14 March 2023 under the title “Mercedes-Benz Group Sustainability Report 2022”. The next report is planned for March/April 2024.

### Forward-looking statements

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 decline of demand 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; a shift in consumer preferences towards smaller, lower-margin vehicles; a possible lack of acceptance of our products or services which limits our ability to achieve prices and adequately utilize our production capacities; price increases for fuel, raw materials or energy; disruption of production due to shortages of materials or energy, labour strikes or supplier insolvencies; 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 cooperation and joint ventures; changes in laws, regulations and government policies, particularly those relating to vehicle emissions, fuel consumption and safety; 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 in the “Risk and Opportunity Report” of Mercedes-Benz Group’s 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.

 [Risks and Opportunities Report, AR 2022](#)

## Contact for the report

**GRI 2-3**

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# Calculation and documentation of CO<sub>2</sub> emissions<sup>1</sup>

## GRI 305-1/-2/-3/-5

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

All direct CO<sub>2</sub> emissions from the company's own emission sources (Scope 1), the indirect emissions from the generation of purchased electricity and district heating (Scope 2) and the emissions from the use of Mercedes-Benz Group products, the supply chain and recycling (Scope 3) are documented. The Mercedes-Benz Group thus also takes into account the upstream and downstream emissions of its activities. In its carbon balance sheets, it only takes into account the greenhouse gas CO<sub>2</sub>, as no data of comparable quality are available worldwide for other greenhouse gases. Furthermore, the emitted amount of these other greenhouse gases is very small so that their environmental impact is significantly subordinate compared to CO<sub>2</sub>. The company considers fossil CO<sub>2</sub> emissions in its carbon balance sheets; an identification of biogenic CO<sub>2</sub> emissions is currently still being developed.

**Scope 1:** The company calculates the direct emissions of the Mercedes-Benz Group from the combustion of fuels, heating oil, natural gas and liquefied petroleum gas using constant CO<sub>2</sub> emission factors in accordance with the World Business Council for Sustainable Development (WBCSD) or the German Emissions Trading Authority (DEHSt). Since 2017, the fuel consumption of company-owned vehicles has also been included. It takes into account the vehicles whose fuel consumption is recorded using an in-house invoicing system. Vehicles which are currently not covered by the system are integrated into the recording through location-based queries.

The Mercedes-Benz Group continues to account for its production-related targets (energy, CO<sub>2</sub>) excluding fuels, as fuel consumption is primarily caused by activities outside production (including company vehicles, test benches). For this reason, the specific energy consumption and CO<sub>2</sub> emissions (per vehicle produced) that constitute the basis for its production-related targets are published without fuel consumption.

The Mercedes-Benz Group records its energy consumption worldwide via a data tool and aggregates it for reporting purposes. The data basis is provided by calculations or measurements. In individual cases, expert estimates are used where calculations or measurements are not available in time at the years-end. Conversion factors are taken from site-specific calculations (for example calorific values) or valid accounting standards. The Mercedes-Benz Group uses internationally recognised standards and methodologies from renowned institutions and accesses officially recognised data sources, such as the [International Energy Agency \(IEA\)](#) as a data source for CO<sub>2</sub> emission factors.

**Scope 2:** The company calculates the indirect emissions of district heating and electricity from external generation differentiated by time and region. Since 2016, the determination of the CO<sub>2</sub> footprint has been made in line with the "market-based" calculation approach, based on the Greenhouse Gas Protocol Initiative's guidance on Scope 2 emissions published in 2015. For the "market-based" calculation approach, the Mercedes-Benz Group collects the CO<sub>2</sub> emission factors of the local electricity rates or electricity companies at its worldwide locations. Where not available, the current average emission factor published for the respective countries according to the International Energy Agency (IEA) or for the USA according to the United States [Environmental Protection Agency \(EPA\)](#) is still used. For comparison purposes, CO<sub>2</sub> emissions are also reported according to the "location-based" method, which only includes country-specific emission factors.

<sup>1</sup> The information was audited in order to obtain limited assurance.

**Scope 3:** The company determines CO<sub>2</sub> emissions resulting from the use of products of the Mercedes-Benz Group on the basis of sales figures and the average fleet consumption value. The company assumes an annual mileage of 20,000 km for ten years. Further indirect CO<sub>2</sub> emissions from the supply chain (purchased goods and services) or in connection with the recycling of the vehicles are calculated on the basis of vehicle-specific life cycle assessments in accordance with ISO 14040/44 and are based on the GaBi (Ganzheitliche Bilanzierung) balancing software.

The Mercedes-Benz Group does not calculate other greenhouse gases on a company-wide basis at this time. As the calculation of climate-relevant refrigerants in the German plants shows, these emissions are negligible.

# Independent assurance practitioner's report<sup>1</sup>

To Mercedes-Benz Group AG, Stuttgart

We have performed a limited assurance engagement on selected sustainability disclosures in the Sustainability Report 2022 of Mercedes-Benz Group AG, Stuttgart (hereinafter also short "Company"), for the period from January 1 to December 31, 2022.

This includes the following selected disclosures on sustainability (hereinafter the "Sustainability Disclosures"):

- Disclosures on CO<sub>2</sub> emissions (scope 1, scope 2 and selected scope 3) in the following tables and charts
  - "CO<sub>2</sub> emissions from energy consumption"
  - "Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tons per vehicle, Mercedes-Benz Cars 2022"
  - "Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tons per vehicle, Mercedes-Benz Vans 2022"
  - "Scope 1, 2 and 3 emissions, Mercedes-Benz Cars worldwide"
  - "Scope 1, 2 and 3 emissions, Mercedes-Benz Vans worldwide",
- Disclosures on energy consumption in the table "Energy consumption",
- Disclosures on water withdrawal in the table "Water withdrawal",
- Disclosures on waste in the table "Waste by category",
- Disclosures in the appendix "Calculation and documentation of CO<sub>2</sub> emissions",
- Disclosures on the share of suppliers who have signed the "Ambition Letter" in the chapter "Climate protection in the supply chain > Effectiveness and results",
- Disclosure on accident frequency at production sites in the table "Accident frequency" as well as
- Disclosures regarding the EU taxonomy in the tables of the chapter "EU taxonomy".

These contents, on which we performed our limited assurance engagement, are indicated by footnotes in the Sustainability Report 2022.

## Note on a further matter

As part of the year-end audit, we were engaged to perform a reasonable assurance for the combined non-financial declaration of the company and the group, contained in the combined management report, to comply with Sections 289b to 289e and 315b to 315c HGB (hereinafter referred to as "non-financial declaration 2022") for the financial year from January 1 to December 31, 2022. Regarding the nature, scope, and results of this audit, we refer to our auditor's report on the audit of the consolidated financial statements and the combined management report of Mercedes-Benz Group AG, Stuttgart, dated March 13, 2023. The contents, audited as part of the audit of the non-financial declaration 2022, are indicated by blue font color in the Sustainability Report 2022; audited graphics and tables are marked by respective footnotes. Unless marked with footnotes, graphs and tables were not audited, regardless of the font colors used.

## Responsibilities of Management

Management of Mercedes-Benz Group AG is responsible for the preparation of the Sustainability Report and the therein contained Sustainability Disclosures in accordance with the therein stated Reporting Criteria and Article 8 of REGULATION (EU) 2020/852 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 June 2020 on establishing a framework to facilitate sustainable investment and amending Regulation (EU) 2019/2088 (hereinafter the "EU Taxonomy Regulation") and the Delegated Acts adopted thereunder, as well as for making their own interpretation of the wording and terms contained in the EU Taxonomy Regulation and the Delegated Acts adopted thereunder as set out in section "EU taxonomy" of the Sustainability Report.

This responsibility includes the selection and application of appropriate non-financial reporting methods and

<sup>1</sup> Our engagement applied to the German version of the Sustainability Report 2022. This text is a translation of the independent assurance practitioner's report issued in German language, whereas the German text is authoritative.

making assumptions and estimates about individual non-financial disclosures of the Group that are reasonable in the circumstances. Furthermore, management is responsible for such internal control as they consider necessary to enable the preparation of the Sustainability Disclosures that are free from material misstatement, whether due to fraud (manipulation of the Sustainability Disclosures) or error.

The EU Taxonomy Regulation and the Delegated Acts issued thereunder contain wording and terms that are still subject to considerable interpretation uncertainties and for which clarifications have not yet been published in every case. Therefore, management has disclosed their interpretation of the EU Taxonomy Regulation and the Delegated Acts adopted thereunder in section "EU taxonomy" of the Sustainability Report. They are responsible for the defensibility of this interpretation. Due to the immanent risk that indeterminate legal terms may be interpreted differently, the legal conformity of the interpretation is subject to uncertainties.

## **Independence and Quality Assurance of the Assurance Practitioner's firm**

We have complied with the independence and quality assurance requirements set out in the national legal provisions and professional pronouncements, in particular the Professional Code for German Public Auditors and Chartered Accountants (in Germany) and the quality assurance standard of the German Institute of Public Auditors (Institut der Wirtschaftsprüfer, IDW) regarding quality assurance requirements in audit practice (IDW QS 1).

## **Responsibility of the Assurance Practitioner**

Our responsibility is to express a conclusion with limited assurance on the Sustainability Disclosures described above based on our assurance engagement.

We conducted our assurance engagement in accordance with International Standard on Assurance Engagements (ISAE) 3000 (Revised): "Assurance Engagements other

than Audits or Reviews of Historical Financial Information" issued by the IAASB, in the form of a limited assurance engagement for the Sustainability Disclosures described above. This standard requires that we plan and perform the assurance engagement to obtain limited assurance about whether any matters have come to our attention that cause us to believe that the Company's Sustainability Disclosures described above are not prepared, in all material respects, in accordance with the Reporting Criteria and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well as the interpretation by management disclosed in section "EU taxonomy" of the Sustainability Report.

In a limited assurance engagement, the procedures performed are less extensive than in a reasonable assurance engagement, and accordingly, a substantially lower level of assurance is obtained. The selection of the assurance procedures is subject to the professional judgment of the assurance practitioner.

In the course of our assurance engagement we have, among other things, performed the following assurance procedures and other activities:

- A risk analysis, including a media search, to identify relevant sustainability aspects for Mercedes-Benz Group in the reporting period.
- Evaluation of the design and implementation of the systems and processes for the collection, processing, and control of the data on sustainability performance indicators, including the consolidation of the data.
- Inquiries of relevant employees at corporate level responsible for providing the data, carrying out internal control procedures and consolidating the data, including the accompanying explanatory notes.
- Examination of selected internal and external documents.
- Analytical evaluation of data and trends of quantitative information which are reported by selected sites to group level.
- Assessment of local data collection and reporting processes and reliability of reported data via sampling survey in Kecskemét, Düsseldorf and Untertürkheim.
- Evaluation of the overall presentation of the Sustainability Disclosures included in the scope of the audit.
- Reconciliation of disclosures with the corresponding information in the non-financial declaration 2022.

In determining the disclosures in accordance with Article 8 of the EU Taxonomy Regulation, management is required to interpret undefined legal terms. Due to the immanent risk that undefined legal terms may be interpreted differently, the legal conformity of their interpretation and, accordingly, our assurance engagement thereon are subject to uncertainties.

## Assurance Opinion

Based on the assurance procedures performed and the evidence obtained, nothing has come to our attention that causes us to believe that the following selected Sustainability Disclosures

- Disclosures on CO<sub>2</sub> emissions (scope 1, scope 2 and selected scope 3) in the following tables and charts
  - “CO<sub>2</sub> emissions from energy consumption”
  - “Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tons per vehicle, Mercedes-Benz Cars 2022”
  - “Scope 1, 2 and selected Scope 3 CO<sub>2</sub> emissions in tons per vehicle, Mercedes-Benz Vans 2022”
  - “Scope 1, 2 and 3 emissions, Mercedes-Benz Cars worldwide”
  - “Scope 1, 2 and 3 emissions, Mercedes-Benz Vans worldwide”
- Disclosures on energy consumption in the table “Energy consumption”,
- Disclosures on water withdrawal in the table “Water withdrawal”,
- Disclosures on waste in the table “Waste by category”,
- Disclosures in the appendix “Calculation and documentation of CO<sub>2</sub> emissions”,
- Disclosures on the share of suppliers who have signed the “Ambition Letter” in the chapter “Climate protection in the supply chain > Effectiveness and results”,
- Disclosure on accident frequency at production sites in the table “Accident frequency” as well as
- Disclosures regarding the EU taxonomy in the tables of the chapter “EU taxonomy”

of Mercedes-Benz Group AG for the period from January 1 to December 31, 2022 are not prepared in all material respects, in accordance with the Reporting Criteria stated in the Sustainability Report 2022 of Mercedes-Benz Group AG and the EU Taxonomy Regulation and the Delegated Acts issued thereunder as well

as the interpretation by management as disclosed in section “EU taxonomy” of the Sustainability Report.

## Restriction of Use

This assurance report is solely addressed to Mercedes-Benz Group AG for exclusive usage.

Our assignment for Mercedes-Benz Group AG and professional liability is governed by the General Engagement Terms for Wirtschaftsprüfer (German Public Auditors) and Wirtschaftsprüfungsgesellschaften (German Public Audit Firms) (Allgemeine Auftragsbedingungen für Wirtschaftsprüfer und Wirtschaftsprüfungsgesellschaften) in the version dated January 1, 2017 ([https://www.kpmg.de/bescheinigungen/lib/aab\\_english.pdf](https://www.kpmg.de/bescheinigungen/lib/aab_english.pdf)). By reading and using the information contained in this assurance report, each recipient confirms to have taken note of the terms and conditions stipulated in the General Engagement Terms (including the liability limitations to EUR 4 Mio for negligence specified in item No. 9 included therein) and acknowledges their validity in relation to us.

Stuttgart, March 13, 2023  
KPMG AG  
Wirtschaftsprüfungsgesellschaft  
[Original German version signed by:]

**Engelmann**  
Wirtschaftsprüfer

**Herold**

# GRI Index

## **GRI 1 Foundation**

The Mercedes-Benz Group has reported this report in accordance with the GRI Standards for the period from 1 January, 2022 to 31 December, 2022.

The relevant indicators are directly shown in the texts and combined in the GRI Index.

You can find the GRI Index at: [↗ GRI Index](#)

# Glossary

## Active and passive safety of vehicles

“Active safety” in vehicles includes, for example, emergency braking systems in a vehicle that help to reduce the severity of accidents or even to prevent them entirely. “Passive safety”, on the other hand, refers to measures that take effect during or after a collision in order to mitigate the consequences of the accident.

## Advocacy

Advocacy is a term from political sciences that describes the public exertion of influence by individual lobbyists or lobby groups on policy-making and decision-making processes.

## Airflow volume

The airflow volume refers to the volume of air moving through a cross-section within a defined period of time and is usually measured in m<sup>3</sup>/s or m<sup>3</sup>/h.

## Artificial Intelligence (AI)

The broad term Artificial Intelligence (AI) is today often used in a narrower sense to mean the latest advances in the area of machine learning (ML). “ML” represents a subset of the AI methods and is based on mathematical methods that find complex patterns in data volumes, for example.

## Assignees

Employees on international assignments. This includes employees who come from abroad and are on international assignments in Germany, employees from Germany who are on international assignments abroad, and employees who come from a country outside of Germany and are on international assignments in another country outside of Germany.

## Automated Lane Keeping System (ALKS)

UN Regulation 157 for Automated Lane Keeping Systems (ALKS) describes the minimum functional requirements that a conditionally automated system has to fulfil so that the driver does not have to continuously monitor

the driving task. The main focus is on regulating the necessary and permissible interaction between the driver and the system. Examples include the handover of the driving task as well as the behaviour of a conditionally automated system while it performs driving tasks (for example the way it reacts to unexpected incidents).

## Base load

With regard to the power supply, the base load is the minimum amount of electric power that has to be generated in order to ensure grid stability.

## California Air Resources Board (CARB)

The California Air Resources Board (CARB) is a government agency of the State of California. Its mission is to promote and protect public health and ecological resources through effective reduction of air pollutants.

## Car-2-X communication

Car-2-X communication is based on technologies with which vehicles share real-time information with each other and with other systems involved in the traffic infrastructure (for example via WLAN or mobile communications).

## Catalytic converter

The catalytic converter of a vehicle (or catalyst for short) serves to purify the exhaust gas in vehicles with combustion engine. It can greatly reduce pollutant emissions.

## C<sub>d</sub> value

The abbreviation stands for drag coefficient. It indicates how streamlined a vehicle is. The smaller the C<sub>d</sub> value, the more aerodynamic the vehicle.

## Circular economy

The circular economy is an approach in which existing materials and products are used for as long as possible, repaired, reused or recycled in order to extend their life cycle. This minimises waste and the need for primary raw

materials. The circular economy is seen as the counter-model to linear economies, in which materials and products are often only used once. In a circular economy, the eventual recycling of the processed materials is already considered during a product's design phase.

### **Climate Pledge**

The Climate Pledge is a voluntary commitment by companies to fulfil the goals of the Paris Agreement on climate change ten years earlier than required. The companies who have taken this pledge promise to make their business CO<sub>2</sub> neutral by 2040. The Climate Pledge was created in 2020 by Amazon and Global Optimism.

### **CO<sub>2</sub> fleet compliance**

In addition to limits that individual vehicle models may not exceed for their type approval (for example regarding pollutant emissions), the EU also sets CO<sub>2</sub> fleet compliance requirements in terms of a limit value based on the average weight of a manufacturer's fleet. To this end, a CO<sub>2</sub> emissions limit depending on the average weight is defined, which the manufacturer's fleet of new vehicles may not exceed.

### **Concept safety**

In this context, concept safety means that the integration of high-voltage components has been carried out from the very start so as to achieve a high level of safety.

### **Corporate Average Fuel Economy (CAFE) standards**

Corporate Average Fuel Economy (CAFE) refers to a legally stipulated minimum for the average fuel economy of a vehicle fleet in the USA. Automakers have to achieve the CAFE standards for their fleets of cars and light trucks in order to be able to sell vehicles in the USA. The limits are recalculated each year.

### **Corporate citizenship**

Refers to the social engagement of companies that goes beyond their intrinsic business activity. This includes, for example, donations and sponsoring activities, the foundations' work or the voluntary commitment of the employees to charitable causes (corporate volunteering).

### **Decarbonisation**

Decarbonisation is the switch to a carbon-free economy.

### **Deep learning (DL)**

Another subset of machine learning is deep learning (DL), which enables complex patterns to be found in very large data volumes by means of (deep) neuronal networks.

### **Digital ecosystem**

The term digital ecosystem refers to a socio-technical system, which, similar to a biological ecosystem, renders services from within to the benefit of a host of system partners. Participants are, for example, internal company units, IT systems as well as customers, suppliers and third parties.

### **Dry/wet separation technologies**

Paint separation systems are technologies that can bind excess paint particles which are released into the air when vehicles are painted. Wet separation uses water to clean the air. Dry separation is a more environmentally friendly variant in which a dry binding substance (for example stone dust) is used in order to reduce the amount of water and chemicals that are needed.

### **Due diligence**

In general, due diligence processes involve careful examinations, analyses and assessments of a company. Human rights due diligence encompasses measures that a company employs in order to detect and counteract human rights-related risks in its business operations, its supply chain and the services it uses.

### **EKOenergy label**

The EKOenergy label is an internationally recognised mark of quality for electricity, gas, heat and cooling from renewable sources.

### **Electromobility ecosystem**

The term electromobility ecosystem refers to a socio-technical system, which, similar to a biological ecosystem, renders mutually complementary services to the benefit of a host of system partners. This includes, for example, the provision of electric vehicles as well as energy, charging infrastructure and charging services including home energy storage systems. Participants include internal company units, IT systems, customers, as well as suppliers and third parties.

### **Environmental Protection Agency (EPA)**

The Environmental Protection Agency (EPA) is an independent agency of the US federal government tasked with environmental protection matters and the protection of human health.

### **ESG**

The acronym ESG stands for Environment, Social and Governance. Within the context of sustainable finance, this abbreviation is used when investment decisions take into account environmental, social and responsible governance aspects, in short: ESG criteria.

### **Ethics by design**

The “ethics by design” principle refers to the consideration of ethical questions during the development of products – for example those involving the use of artificial intelligence (AI).

### **EU taxonomy**

EU taxonomy (also referred to as Sustainable Finance Taxonomy) is a classification system that was developed by the European Commission in order to create a uniform understanding of the sustainability of business operations within the EU. The aim is to assess business activities throughout the EU according to their sustainability in order to facilitate corresponding financial decisions.

### **European Union Emissions Trading System (EU ETS)**

The European Union Emissions Trading System is a climate protection tool for the reduction of greenhouse gas emissions. A government-stipulated upper limit states how many tonnes of CO<sub>2</sub> may be emitted in total. A company needs an emission allowance for every tonne of CO<sub>2</sub>. These emission allowances can be freely traded on the market. However, their number is limited. This results in a price for CO<sub>2</sub> emissions in order to give companies an incentive to reduce their emissions.

### **FOSS**

Free and Open Source Software (FOSS) is software whose source code is public and thus offers possibilities to many developers to develop custom solutions. A prerequisite is compliance with relevant licences that require the open source principle for the further development. Players and resources in this area can be seen in their multiplicity as an “ecosystem”, which evolves dynamically and in a self-directed manner.

### **Gold Standard**

The Gold Standard is the highest quality standard for carbon-offsetting projects. Gold Standard projects not only avoid CO<sub>2</sub>, they also contribute to the project surroundings' sustainable environmental and social development. The Gold Standard was developed under the direction of the WWF and with the assistance of the German Ministry of the Environment.

### **Greenhouse Gas (GHG) Protocol**

The Greenhouse Gas Protocol (or GHG Protocol for short) is currently the most commonly used series of accounting standards for greenhouse gas emissions.

### **High-voltage disconnect device**

A high-voltage disconnect device is a safety precaution in electric vehicles that deactivates high-voltage systems. When this system is activated, the residual voltage outside of the battery in a high-voltage system is automatically brought to a non-critical level within a few seconds.

### **Human Rights Due Diligence**

Human Rights Due Diligence refers to the obligations a company has to respect human rights and to counter human rights risks in the context of its business activity.

### **Hydrometallurgy**

Technology for metal extraction from aqueous metal salt solutions.

### **Inflation Reduction Act**

The Inflation Reduction Act from 2022 is a federal law of the USA. Among other things, it aims to reduce inflation and also lower the costs for drugs in health care. Furthermore, it sets out to promote investments in domestic energy production, in particular for generating clean energy in order to curtail climate change.

### **Initiative for Responsible Mining Assurance (IRMA)**

The Initiative for Responsible Mining Assurance (IRMA) was created in response to the global demand for socially acceptable and environmentally compatible mining. IRMA provides independent inspections and certifications according to a comprehensive standard for mined raw materials. The standard covers the entire spectrum of risks associated with the effects of industrial mining.

## **International Energy Agency (IEA)**

The International Energy Agency (IEA) is a cooperation platform in the area of research, development, market launch and use of energy technologies.

## **International Sustainability Standards Board (ISSB)**

The ISSB is an independent, private-sector body that develops and adopts the IFRS Sustainability Disclosure Standards (IFRS SDS). The ISSB was set up in 2021 to meet the need for global sustainability standards.

## **Intrinsic safety**

Intrinsic safety is a technical property of a device or system. Special designs ensure that even a breakdown does not cause a dangerous situation.

## **IPCC SSP5-8.5 scenarios**

Shared Socioeconomic Pathways (SSP) describe possible economic and social development pathways that lead to different future greenhouse gas emissions and thus to different greenhouse gas concentrations. The SSP5-8.5 climate scenario is based on the increased use of fossil fuels and little realisation of renewable energies. Accordingly, the greenhouse gas concentrations in the atmosphere rise sharply and result in major climate changes.

## **Last mile delivery**

The term "last mile delivery" or "last mile" is mainly used in connection with inner-city supply, distribution and infrastructure technology. Due to the obstructions of traffic and the reloading onto smaller transport vehicles, the "last mile" is frequently the most energy- and resource-intensive leg in the transport of raw materials and goods. That is why low-emission alternatives are increasingly being sought, for example the electrification of urban transport mobility.

## **Line of credit**

Line of credit, also called credit facility, is the sum total of all pre-approved loans that a company has at its disposal from one or multiple banks to meet its borrowing needs and which the customer can use as required.

## **Load case**

A load case refers to the configuration of a crash test. This includes the number, type and positioning of the crash test dummies on board the vehicle as well as the

parameters of the collision configuration, for example type of collision, velocity and impact angle.

## **Loads peaks**

Load peaks occur in power grids, for example, when energy demand suddenly increases steeply for a short period of time. In order to meet this demand and ensure that supply is uninterrupted, more electricity has to be fed into the grid at short notice. This can be done by means of battery storage systems or pumped-storage hydroelectric power stations, for example.

## **Machine Learning (ML)**

"ML" represents a subset of the AI methods and is based on mathematical methods that find complex patterns in data volumes, for example.

## **Malicious code**

Malicious code or malware refers to computer programs developed to carry out damaging tasks such as stealing passwords or other sensitive data.

## **Management levels**

The managers of the organisational hierarchy of the Mercedes-Benz Group are divided into the management levels one through five. Level one is the management level directly below the Board of Management and Level five is that of the forepersons.

## **Mass balance approach**

In order to reduce greenhouse gas emissions and save primary raw materials, the chemical industry increasingly uses recycled or bio-based raw materials without impairing the quality and properties of a product as a result. This not only improves the climate footprint of the end product, but also allows the use of existing machinery and processes as usual. Using the mass balance approach, these more sustainable raw materials introduced at the start of production are mathematically allocated to the end products.

## **Merger and acquisition projects**

A merger is the union of two or more companies with the aim of operating more efficiently and/or improving the joint market position. The overarching term mergers and acquisitions (M&A) also includes the purchase of companies in this context.

## **Metaverse**

A metaverse is a digital space created by the interaction of virtual, augmented and physical reality.

## **MINT**

MINT is an acronym comprised of the first letters of certain training areas and academic subjects as a collective term for mathematics, informatics, natural sciences and technology.

## **Multilateral trade order**

In multilateral trade systems, policies ensure free and rule-based trade. The multilateral trade order of the World Trade Organization (WTO) requires that activities for protecting business from foreign competition must have the same effect on all members. This means that foreign goods, service providers and suppliers must not be treated less favourably than domestic ones.

## **Net Zero Emissions by 2050 Scenario (NZE)**

The Net Zero Emissions by 2050 Scenario (NZE) is a normative IEA scenario that points a way for the global energy sector to achieve net zero carbon emissions by 2050, taking into account that advanced economies will achieve net zero emissions before others. It is in accordance with limiting global warming to 1.5 °C, without or with just slightly exceeding the temperature (with a probability of 50%).

## **Non-governmental organisations (NGOs)**

A non-governmental organisation (NGO) is a civic association, and thus not a governmental or profit-seeking organisation, that advocates for a certain cause.

## **OECD**

Based in Paris, the Organisation for Economic Co-operation and Development (OECD) is an international organisation encompassing 37 member countries that are committed to democracy and a market economy.

## **Off-cycle technologies**

Off-cycle technologies are technologies for real CO<sub>2</sub> emissions reduction, whose effect cannot however be measured in the standard cycle.

## **Partial load**

Partial load refers to a machine's mean operating condition between full load (100% of possible output) and no load (the machine is switched off).

## **Partner protection**

Partner protection refers to the protection of the occupants of the other vehicle in the course of a road accident involving two vehicles.

## **Plug-in hybrid (PHEV)**

A plug-in hybrid electric vehicle (PHEV) has a hybrid drive system whose battery can be charged either by a combustion engine or by the power grid.

## **Power Purchase Agreements (PPAs)**

A Power Purchase Agreement describes a special, normally long-term power supply contract concluded between a major buyer, for example a company, and an independent producer of electricity from renewable energies – the Independent Power Producer (IPP). This enables agreement on prices and scope of supply individually and independently, which ensures stable power supply and stable costs for the buyer.

## **Powertrain Network**

The Powertrain Network stands for locations in charge of producing engines, transmissions, axles and components (major assembly plants). These include for example the locations Untertürkheim, Hamburg and Berlin.

## **Privacy by design**

Privacy by design is data protection by means of technology design. The basic principle of this approach is that personal data can be best protected if software and hardware are designed and developed to comply with data protection regulations from the very start.

## **Protectionism**

Protectionism describes a type of trade policy which involves state intervention to protect domestic goods, services and traders from foreign competition. The trade barriers serve to protect the competitiveness of the domestic markets. However, they severely hamper international trade as a whole in the long term.

## **Pyrolysis**

Pyrolysis refers to a thermochemical change process that uses high temperatures to decompose organic compounds. This enables biomass or plastic waste to be converted into high-order products such as fuels or chemicals.

## **Rated thermal input**

The rated thermal input stands for the thermal energy that can be fed to a furnace system in continuous operation by burning fuel. After energy losses are subtracted, the result shows the thermal output of the respective heating system.

## **Recycled content**

Recycled content comprises secondary raw materials which are recovered during the recycling of plastics that were disposed of at least once previously. It is subsequently used to manufacture new products.

## **Remuneration framework agreement (ERA)**

The remuneration framework agreement (ERA) is the collective bargaining agreement for the standardised regulation of employee remuneration in Germany's metal and electrical industries.

## **Rescue data sheets**

Rescue data sheets contain a standardised depiction of technical information that is relevant for rescue teams. They cover specific vehicle models and make it easier for rescue teams to operate at an accident site.

## **Residual energy**

Residual energy can be present in the cables of switched-off machines. This can become dangerous if electrical or mechanical residual energy leads to sudden movement of a machine, for example.

## **Restraint systems**

Restraint systems are safety systems in vehicles which serve to hold the occupants in their seats in conditions such as heavy braking – using seat belts or airbag systems, for example.

## **Rights holders**

From a human rights perspective, rights holders are all natural persons that (potentially) may be affected by human rights violations.

## **SAE Level/automated and autonomous driving**

Automated driving functions help drivers with their driving tasks – or enable them to perform them entirely on their own. There are five different levels of automation: assisted (SAE Level 1), semi-automated (SAE Level 2), conditionally automated (SAE Level 3), fully automated (SAE Level 4) and driverless (SAE Level 5). The degree of automation increases with each level, and the drivers' responsibility for the driving task diminishes accordingly. In Germany, the Mercedes-Benz Group is strictly guided by the terms of the VDA.

## **Science Based Targets initiative (SBTi)**

The Science Based Targets initiative (SBTi) is a joint initiative of the Carbon Disclosure Project (CDP), the UN Global Compact, the World Resources Institute and the World Wide Fund for Nature (WWF). It aims to encourage companies to set targets for reducing greenhouse gas emissions in line with the level of decarbonisation that scientists are calling for in order to limit global warming to less than 1.5 °C/2 °C compared to pre-industrial temperatures.

## **Shop floor management**

Shop floor management refers to the management of manufacturing and value-added processes by managers who are physically present and active on site.

## **Sled testing**

Sled tests are crash tests in which a vehicle does not collide with a wall or other object. Instead, the vehicle body shell fitted with the components to be tested are mounted on a sled that is then suddenly braked. As a result, there is no actual collision.

## **Sustainability Accounting Standards Board (SASB)**

The Sustainability Accounting Standards Board (SASB) is a non-profit organisation in the United States that has developed industry-specific standards for sustainability reporting.

## **Sustainable Finance Disclosure Regulation (SFDR)**

The SFDR is part of a more comprehensive package of legislative instruments designed to gear capital towards more sustainable business. The main goal is to ensure that the participants in the financial market are able to finance growth in a sustainable manner in the long term.

## **Tank-to-wheel**

Unlike the more comprehensive well-to-wheel assessment, tank-to-wheel assessments take into account the chain of cause and effect from the time energy (for example petrol or electricity) is absorbed until its conversion into kinetic energy during driving.

## **Task Force on Climate-related Financial Disclosures (TCFD)**

The Task Force on Climate-related Financial Disclosures (TCFD) is a corporate reporting initiative that was created by the Financial Stability Board. Its long-term goal is to incorporate climate-related opportunities and risks into companies' business and financial reports. To this end, it published recommendations in 2017 on how businesses should conduct uniform climate reporting.

## **Technology platform**

A technology platform in the automotive industry is a concept vehicle which presents innovative technologies in an exemplary manner with the aid of a near-production vehicle.

## **Think tank**

A think tank can comprise a research institute, association or expert group. Its mission is to research, develop or evaluate concepts or strategies for solving political, social or economic problems and thus influence the shaping of public opinion.

## **Tier 1**

Tier 1 refers to the first upstream stage of the supply chain, i.e. the direct suppliers. The other stages of the value chain (all the sub-suppliers) are referred to as Tier 2 to Tier n suppliers.

## **Transform to Net Zero**

Transform to Net Zero is a corporate initiative launched by Microsoft. In addition to the Mercedes-Benz Group and Microsoft, eight other renowned, globally operating companies take part. Its goal is to improve the climate policy framework for the decarbonisation of the economy and society worldwide.

## **Turbocompressor**

A turbocompressor is a machine that can compress air. Compressed air is used, for example, to drive machines in industrial production. Unlike "normal" compressors,

turbocompressors are designed like a turbine and have aerodynamic properties. They are particularly energy-efficient as a result.

## **UN Global Compact (UNGCG)**

The United Nations (UN) Global Compact is a pact concluded between companies and the UN in order to make globalisation more socially and environmentally friendly. The companies regularly report to the UN on the progress they make.

## **UN Principles for Responsible Investment (PRI)**

The six UN Principles for Responsible Investment were initiated by an international investor network. They aim to make it easier to understand the effects of investment activities on ESG issues and help the signatories to take ESG criteria into account in their investment decisions.

## **Unsprung mass**

Unsprung mass refers to the components of a vehicle that are subject to direct impacts from the road. These components include the tyres, rims, brakes and wheel bearings.

## **Vehicle class N1**

Class N1 vehicles are motor vehicles with a gross vehicle weight of up to 3.5 t and at least four wheels, which are used to transport goods or for another special purpose.

## **Waste hierarchy**

A waste hierarchy defines and prioritises the various approaches to handling waste. The most important measures are those which are especially environmentally compatible. The EU's Waste Framework Directive defines the following five hierarchy levels:

1. Prevention
2. Preparation for reuse
3. Recycling
4. Other recovery, especially incineration for the generation of energy and use as a filling material
5. Disposal

## **Well-to-tank**

A well-to-tank assessment is a consideration of the effort for providing the drive power for motor vehicles from the generation of the primary energy (for example oil, natural gas or electricity) to the provision for the vehicle.

### **Well-to-wheel (WtW)**

In addition to the driving operation, a well-to-wheel assessment also takes into account the production of the energy carrier, such as the power generation or the production of petrol.

### **WLTP**

WLTP (Worldwide Harmonised Light Vehicle Test Procedure – WLTP) is an international measurement standard that is used to determine how much fuel a car consumes and whether it complies with the emission limits. The WLTP replaced the former measurement standard NEDC on 1 September 2017. In the WLTP cycle, certification values are determined for each vehicle from its mass, air and rolling resistance, and optional equipment. It also includes a test under real driving conditions (RDE).

### **WLTP-TML/WLTP-TMH**

The suffixes “TML” and “TMH” refer to the range of possible assessments of a vehicle in the WLTP measurement standard. The values for aerodynamics, rolling resistance and vehicle mass change depending on the optional equipment used. These circumstances are taken into account in the WLTP cycle. TML (test mass low) stands for the most favourable and TMH (test mass high) for the least favourable case.

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