PIERER MOBILITY AG

TCFD Report | 2023

TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES REPORT 2023

Introduction	5
Governance	6
Strategy	6
Risk management – risks and opportunities	9
Climate-related risks and opportunities (outside in) and potential financial impacts	10
Environmental management	14
Imprint	23

Cover:

Task Force on Climate-related Financial Disclosures Report 2023

INTRODUCTION

Incorporating the risks and opportunities associated with climate change into the business activities of the PIERER Mobility Group goes hand in hand with its mission to design future-oriented mobility solutions and promote more climate-friendly mobility. It therefore understands a sustainable approach to mean, above all, the phased reduction of emissions over the entire product life cycle. For this reason, innovative technologies are embraced to help to reduce CO_2 emissions in order to combat climate change. In this context, it examines the climate-related risks and opportunities of its business activities and commits voluntarily to disclose them in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) on reporting climate-related information.

Analyzing climate-related risks and opportunities and presenting them transparently is an ongoing process that is constantly being improved and updated. As part of this improvement and transparency, the risk management team has been strengthened, resulting in new implementation across the group that now delivers a full picture of all the risks and opportunities. PIERER Mobility has been implementing the TCFD recommendations step by step and has been communicating these developments in its TCFD report each year since 2021. In 2023, a scenario analysis was carried out with a focus on climate change. The results and their evaluation firstly form part of the sustainability strategy, and secondly are integrated into the risk management process.

GOVERNANCE

Operational management

The Executive Board of the PIERER Mobility Group is structured according to functional and business responsibilities. The different areas of the business have been[1] managed by seven members of the Executive Board since the 2023 financial year. The following areas of responsibility focus on the group functions and business-related responsibilities:

- Chairman of the Executive Board / Strategic Overall Management, Research and Development, Product Management;
- Finance / Tax and Legal Affairs, Human Resources, IT, Risk Management, Real Estate;
- Sales, Customer Service, Marketing, PG&A;
- Digital Transformation, PIERER Innovation, Avocodo;
- Deputy Chairman of the Executive Board, Brand Management, Motorsports, X-Bow, Joint Ventures, Investor Relations;
- Production, Quality Management, Purchasing and Logistics, Sustainability, Supply Chain Management.

The ESG team is made up at group level of employees from ESG Management, Risk Management, Quality Management – this department also encompasses Environmental Management – and Investor Relations, which consults regularly with the ESG officers/managers from all specialist departments. The ESG team is responsible for coordinating and managing the group-wide ESG management and the latest ESG program. In addition, this steering committee coordinates the sustainability strategy with the corporate strategy. The ESG team is responsible for reporting all sustainability issues and constantly engages with relevant stakeholder groups. At a local level, the general managers/divisional heads of the respective business units/divisions are responsible for implementing the ESG process and for creating and achieving the ESG targets. The targets are regularly monitored and approved by the Executive Board. Overall responsibility rests with the Executive Board.

COMMITTEE FOR ESG ISSUES

The Supervisory Board, which currently has six members, is supported by the Committee for Compliance, Investor Relations (IR) and Sustainability (ESG), among others. The committee, which was established in the 2022 financial year, focuses among other things on the issues from the sustainability and TCFD reports and regularly reviews whether the compliance, IR and ESG objectives pursued by PIERER Mobility AG are being met. For this purpose, the committee monitors the measures being taken to achieve these objectives and supports the implementation of such measures in all divisions of PIERER Mobility AG. In addition, the committee regularly evaluates the pursued objectives.

STRATEGY

The urgent need to take action to combat the ongoing process of climate change and to adapt to the unavoidable consequences of progressive warming brings both risks and opportunities for companies. Particularly in the area of mobility, consequences that can be expected and are already being seen are stricter regulations for vehicles and further requirements, but also increased interest from stakeholders in relation to climate-friendly mobility solutions. The development of alternative drive systems and the reduction of vehicle emissions are therefore also key tasks for PIERER Mobility AG, both to counter risks associated with climate change at an early stage, and also to make the best possible use of emerging opportunities and potential. Furthermore, efficient use of materials to save resources is hugely important in development and production. Thanks to its wide range of products, the company has various levers at its disposal that enable it to achieve a sustainable reduction in emissions in all areas of mobility and along the entire life cycle – from the way products are developed and manufactured to the way they are used and the end of the product life cycle. This includes, for example, the life cycle assessment (LCA) of various products, enabling climate-relevant variables to be regularly evaluated and incorporated into product development. The aim is to use these findings and the results of the life cycle assessment to identify potential for environmental sustainability and create opportunities to actually exploit this potential in the early phase of product development. As well as looking at the materials used, the focus here is increasingly on the options for recycling at the end of the product life cycle and the circular economy. The first step is now to qualify the first plastic assemblies in the predevelopment phase in order to be ready to meet the requirements of new regulations. Since mid-2022, Sphera's LCA for Experts, which is the leading choice of software in the field of life cycle assessments, has been used in this context. This means that in the future, in addition to the carbon footprint, it will also be possible to evaluate other relevant impact categories. The continuous optimization of internal processes and procedures is based on legal foundations, international norms

1 For more information about the members of the Executive Board, please visit https://www.pierermobility.com/en/investor-relations/corporate-governance/corporate-bodies

and standards (ISO certifications, energy audits according to the Austrian Energy Efficiency Act (EEffG), GRI standards, etc.). These measures and developments are thus directly linked to the objectives of the PIERER Mobility Group. An overview of all projects was compiled in the ESG program and published with the Sustainability Report 2022[1] in March 2023.

The group already considers various approaches to ecological issues in the way it selects and procures purchased parts and production materials and is therefore heavily engaged in this area (such as the expansion of supplier verification – see from page 80 onward in the Sustainability Report 2022). At the production sites in Mattighofen and Munderfing/Austria, various energy-saving projects are also being carried out, including the provision/construction of photovoltaics – see page 66 in the Sustainability Report 2022. The aim is to keep the amount of power for the company's own consumption at a high level by expanding the area of photovoltaic installations – we refer here to the explanations provided under "Energy efficiency".

For the production sites in Munderfing and Mattighofen, PIERER Mobility relies on local procurement strategies that produce more environmentally friendly supply chains thanks to shorter distances and lower transport costs. In the 2022 financial year, 80 % of the components used in motorcycle production were sourced from Europe. For further information, please refer to page 70 of the Sustainability Report 2022. A regional focus is also important when it comes to selecting suppliers for construction work. At the same time, various approaches are being pursued in the distribution of products to further minimize transport routes and continuously reduce packaging material. For further information, please refer to pages 69-71 of the Sustainability Report 2022.

DECARBONIZATION OF TRANSPORT BY EMBRACING TECHNOLOGY

One of the key pillars of the sustainability strategy is the decarbonization of transport. As well as incorporating the legal requirements and comparative figures, the PIERER Mobility Group is endeavoring to provide powertrain solutions for PTWs that champion this approach and will help to achieve the EU target of net zero emissions by 2050. The group therefore shares with KTM AG, as a member of ACEM, its decarbonization strategy[2]. This focuses on the objectives of the European Green Deal and the Climate Law, as well as the Sustainable and Smart Mobility Strategy of the European Commission. The ACEM strategy provides the group with guidance on how to handle its key ESG issues throughout the product life cycle.

The industry goal, which is based on the concept of "right vehicle, right place, right energy carrier," is to continue to offer the market a variety of powertrains, each of which will help to deliver decarbonization. Urban environments, for example, which tend to involve medium speeds and fairly short journeys, can particularly benefit from electric powertrains:

Vehicles up to around 250 cc, primarily for use in urban areas, will also move toward low-voltage (48-volt) electric drives. All combustion engines, installed in vehicles of PIERER Mobility Group, are capable of using CO_2-neutral fuels, which will replace fossil fuels with equivalent specifications in the medium term.

In market segments that are difficult to electrify, other solutions based on the combustion engine will also be vital. To be able to continue to operate dynamically in the premium vehicle segments with higher performance and range requirements, electrification with current battery technology is not a viable alternative for the mass market - apart from for a few niche products. In the high-performance segments, the focus of development work will therefore be on making further improvements to the combustion engine (e.g., reducing CO_2 and NVH[3]) and using and ensuring compatibility with synthetic fuels (e-fuels).

As of 2024, in Moto^{GP} a fuel (40 % non-fossil fuel) will be used, which is produced from at least 40 % raw materials that are not derived from crude oil. As of 2027, this percentage will be increased to 100. This means that as of 2027 the raw material for the fuel will no longer consist of crude oil (100 % non-fossil fuel). The transfer of technology within the group is very important. The innovations and experience gained from racing have historically been the foundation on which the series applications of PIERER Mobility's motorcycles have been based. This means that gradual introduction of e-fuels and therefore gradual decarbonization of the entire vehicle fleet will also be feasible for production motorcycles. In principle, this also means that no interventions in the engine mechanics and application will be required.

The PIERER Mobility Group views e-fuels[4] as a possible alternative for making the wide range of existing vehicles carbon-neutral. E-fuels can make an important contribution toward achieving the climate protection targets in the transport sector. E-fuels have a higher energy density and can be stored more easily compared to hydrogen.

1 https://www.pierermobility.com/api/assets/10233041?type=attachment
2 https://www.acem.eu/policy-areas/environment/acem-position-paper-decarbonisation-of-transport-powered-two-wheelers-ptws-on-the-road-to-2050
3 NVH: Noise, Vibration, Harshness
4 https://www.acem.eu/images/publiq/2022/ACEM_position_paper_-_Efuels.pdf

European e-mobility expertise for swappable battery system

The Swappable Batteries Motorcycle Consortium (SBMC)[1] was founded by KTM Forschungs & Entwicklungs GmbH together with three other motorcycle manufacturers (Honda Motor Co. Ltd., Piaggio Group (PIA.MI) and Yamaha Ltd.) with the aim of developing a common technical standard for a battery swap system including corresponding battery swap stations by 2024. This goal will be achieved by following four main objectives:

1. Developing common technical specifications for swappable battery systems.
2. Confirming the shared use of battery systems.
3. Promoting the consortium's common specifications with European and international standardization bodies and making them standard.
4. Applying the consortium's common specifications globally.

The international standardization (e.g., CEN, ISO) that is envisaged in the project will create a market for this battery system, which will allow it to meet customers' expectations when it comes to range, "charging time" (limited to the time needed to swap the batteries) and costs, and in which positive business cases can be presented for each of the manufacturers (vehicle, battery, charging/swap stations). The work of the consortium, which is also open to other members (there are currently around 40 members), will thus help significantly to broaden the use of electric propulsion in light 2-, 3-, and 4-wheeled vehicles with a focus on applications over shorter distances (e.g., daily journeys of < 100 km).

Furthermore, the group is pursuing the following strategies in its core areas, also with a view to sustainability and climate change:

- Developing technologies that are designed to deliver a further reduction in emissions of harmful substances and noise for future generations of engines for vehicles with combustion engines (e.g., Euro 5+).

- Developing key systems for battery-powered motorcycles, such as battery packs, electric drive unit, power electronics with a focus on 48-volt technology in the performance class up to approx. 18 kW with the aim of expanding the depth of in-house production.

- Developing a joint platform strategy with Bajaj Auto, India's second largest motorcycle manufacturer for electric two-wheelers (48 volts, 4-11 kW power), that will be used to produce various products for the brands of both partners. In addition to synergies with key components, such as the electric motor, drive unit, and power electronics, part of this cooperation includes adopting an open approach to different battery solutions to exploit the advantages of both integrated and removable batteries.

- Developing key systems for battery-powered motorcycles, such as battery packs, electric drive units, power electronics for high-voltage technologies for performance classes > 20 kW for niche applications and exploiting development synergies with CFMOTO/China.

- Cooperation with leading manufacturers of Li-ion battery cells, in relation to high-performance battery cells (21700 cell). The focus is on cooperation in the areas of research and development as well as the industrialization of low-voltage battery platforms for vehicles ranging from 250 watts to 20 kilowatts peak power that deliver a high range and performance, as well as high-voltage applications for niche products.

- There is also a focus on issues such as the return, recycling, and 2nd life of batteries.

- Reducing CO_2 through long-term production and logistics planning for (e-)bicycles and the components that are required to make them in the EU. Commissioning of the joint assembly plant with the assembler Maxcom in Bulgaria (see also page 73 in the Sustainability Report 2022).

- As part of the Austrian "EMotion" funded project, a low-cost, energy-efficient and lightweight electric two-wheeler platform for urban mobility (class A1, 125 cc) is in an advanced development phase. The project partners conducted a life cycle analysis (LCA) in the form of an eco-design validation to identify potential for reducing CO_2 and then optimize it. The carbon footprint in the use phase is heavily dependent on the respective underlying electricity mix; with the European electricity mix as a reference, for example, it is possible to save up to 147 kg of CO_2 per vehicle. "EMotion" also takes account of recycled materials used for various components in order to further reduce the impact of vehicle manufacturing on the climate (see also pages 58-59 in the Sustainability Report 2022). The pilot phase runs from April to November 2023, and the project will end in the first quarter of 2024. The know-how and all the insights gained from the four years of research working on this innovative project will be used for further development work on series vehicles and in various work processes, including connectivity with the eco-coaching assistant or recuperation strategies.

- Research and development in the area of alternative drive technologies for powered two-wheelers – such as hybrid drive technologies, e-fuels (synthetic fuels), etc.

1 https://www.sb-mc.net/

RISK MANAGEMENT – RISKS AND OPPORTUNITIES

Climate-related risks and opportunities are identified as part of the Enterprise Risk Management (ERM) process and pass through all the process steps just like all other types of risk.

ENTERPRISE RISK MANAGEMENT PROCESS

Enterprise Risk Management in the PIERER Mobility Group is a continuous process that is used to identify and evaluate, analyze and report, define and track measures in relation to the operational and strategic risks and opportunities across the group. This forms the basis for a standard, group-wide reporting system and ensures ongoing monitoring of operational and strategic risks.

The group has a multi-level risk management process in which group-wide risks are identified by areas. The Risk Management department is responsible for ensuring that the information is implemented and kept up-to-date. The information about the risk situation is provided by the risk owners from each department. The Risk Management department reports directly to the Executive Board of KTM AG. It and the Group Executive Board are provided with a regular report on the overall risk situation for monitoring purposes.

Climate-related risks and opportunities are considered and taken into account equally in the following process steps:

Identification & evaluation

The risks and opportunities are identified as part of the risk assessments, managed at the level of KTM AG. These risk assessments discuss and identify climate-related risks and opportunities in equal measure with the affected risk owners from each department.

In principle, the risks and opportunities are assessed to identify how likely they are to occur and the level of damage using a scenario-oriented approach consisting of best case (BC), realistic case (RC), and worst case (WC). The quantification can be based on (a) risks that have actually occurred in the past, (b) benchmark values from the industry, or (c) expert assessments. In addition to the quantitative assessment of risks and opportunities, the methodology also envisages making a qualitative assessment, which is particularly useful in relation to climate-related risks and opportunities.

Analysis & reporting

The structured consolidation of the overall risk inventory is followed by a Monte Carlo simulation, which produces the overall risk situation and the key figures that are needed. In addition, the biggest risks and opportunities for the group are identified to complete the picture. Of course, this also includes the main climate-related risks and opportunities.

Definition & tracking of measures

The main objective of risk mitigation is to ensure an active, continuous, and controlled influence on the risks and opportunities, taking account of the corporate strategy and economic viability, in order to deliberately manage the company's overall risk exposure and thus produce an increase in the value of the company over the long term. Risk mitigation measures are defined and evaluated by the respective risk owner. The Risk Management department is regularly informed about the status of the measures. The measures and objectives for climate-related risks and opportunities are defined in cooperation with the ESG department.

Ad-hoc reporting

If there are ad-hoc changes to the risk situation, the Risk Management department must be notified immediately by the risk owners of the specialist departments and be kept informed.

Based on this, the risk and opportunity management strategy is developed.

CLIMATE-RELATED RISKS AND OPPORTUNITIES (OUTSIDE IN) AND POTENTIAL FINANCIAL IMPACTS

The climate-related risks that have the potential to cause a great deal of damage are listed below:

Climate-related risks		Timeframe*	Potential financial impacts
	POLITICS AND LAW		
Regulations	Driving bans: As a result of efforts to mitigate climate change and deteriorating air quality, existing regulations/driving bans could be tightened/expanded or new regulations could be passed. EU regulation on battery disposal: An amended regulation on how to handle and dispose of traction batteries in relation to electric mobility as a measure to combat climate change could result in higher organizational costs.	Medium-term	Higher R&D costs for new solutions to comply with these regulations, a loss of value for existing models / extra costs for retrofitting, a decline in sales due to changes in market segments and size (e.g., due to urban driving bans). Costs of research and development Costs of collection and disposal processes (including labeling, etc.).
Product lawsuits	In addition to existing potential causes of product-related lawsuits, climate change-related regulations could add further grounds for action that increase the risk of lawsuits.	Short-term	Costs of legal proceedings, claims for damages, conversion costs, reworking costs, recalls.
	TECHNOLOGY		
Product and technology development: Incorrectly targeted R&D activity and investments	Hesitation in the research and development of alternative drive technologies could worsen the market position and the position in relation to technology and innovation. If PIERER Mobility was too late in addressing an increasingly relevant topic, competitors could overtake it in/through this area. Focusing on a single alternative (e.g., e-technology only) or alternative(s) not gaining acceptance could prove to be the wrong move. Technologies may also turn out to be economically unfeasible at the present time.	Medium-term	Loss of sales due to deterioration in market position and damage to reputation ("Nokia effect"). Investments and outlay yield no/insufficient return; at the same time high R&D (cost) outlay for reorientation to other or parallel developments; loss of sales due to deterioration in market position and damage to reputation.
	MARKET		
Changes in customer behavior	Increasing awareness of the climate among consumers could lead to an increase in the demand for alternative (more climate-friendly) mobility solutions and decrease in demand for (individual) mobility that is harmful to the climate.	Medium-term	Loss of sales due to lower demand for PTWs with combustion engines
Materials & raw materials	In particular, resources such as steel and aluminum could become more expensive on the market as a result of climate change-related effects (increased use of renewable energy, which is currently still more expensive, higher requirements for steel production, etc.). A strong increase in demand for critical resources, e.g. for the increased production of batteries for e-mobility, could also lead to shortages of resources in the market.	Short-term	Increased expenditure on raw materials, materials, and purchased parts; costs of production shutdowns if there are occasional shortages of raw materials; loss of sales due to suspended production.
	REPUTATION		
Reputational damage caused by inadequate ESG performance, especially climate change mitigation and adaptation strategies	Inadequate performance in the area of climate change adaptation and mitigation strategies and the associated public image could cause key stakeholders to develop a negative or insufficiently positive image of the company and reduce or completely withdraw their support.	Medium-term	Reduced availability of capital (banks refuse loans or good terms); loss of sales due to boycotts / reputational damage; higher procurement costs if suppliers refuse to offer ESG-linked benefits.

Climate-related risks		Timeframe*	Potential financial impacts
	ACUTE		
Production shutdowns / delays to deliveries caused by extreme weather events (severe weather/storms with hail, flooding)	See table under paragraph "Climate risk and vulnerability analysis for production activities"		
	CHRONIC		
Change in climatic conditions	See table under paragraph "Climate risk and vulnerability analysis for production activities"		

Climate-related opportunities		Timeframe*	Potential financial impacts
	POLITICS AND LAW		
Regulations	Regulatory measures such as the introduced carbon tax in Austria could make PTWs more attractive as a more fuel-efficient alternative to cars. Regulatory measures such as environmental zones or other driving bans related to the climate and air quality could make PTWs more attractive as an alternative to the passenger car that are often exempt from these regulations.	Medium-term	Increasing sales / market share
	TECHNOLOGY		
Product and technology development: Securing the leading role in technology	Technical innovations and the launch on the market of new products from the research and development of alternative drive technologies could further strengthen the company's position in the market and in respect of technology and innovation and enable the relatively high research budget to be maintained. Rising demand for novel drive solutions could be the basis for increasing investments in research and speed up the availability of even better technologies.	Medium-term	Increasing sales / market sharele
	ENERGY SOURCE		
Air conditioning and electricity consumption	Operating costs for air conditioning and electricity consumption could be reduced by using the company's own photovoltaic installations and the energy they generate, and by replacing the existing cooling/heating technology with heat pumps.	Medium-term	Less dependence on electricity prices thanks to self-sufficiency; lower heating costs thanks to low-temperature heating; possible subsidies for modernization projects.

Climate-related opportunities		Timeframe*	Potential financial impacts
	PRODUCTS AND SERVICES		
Changes in customer behavior	E-bicycles and e-motorcycles: With higher demand for low-emission and low-noise individual mobility solutions, expanding the product range to include e-bicycles/stand-up scooters and e-motorcycles in the low-power range could help to boost sales. IoT solutions in products: IoT solutions in products could provide valuable information for climate change-related transport measures such as the expansion/improvement of bicycle infrastructure and thus serve as a new source of revenue.	Medium-term	Increased sales from new product areas such as stand-up scooters, e-bicycles, or low-emission/emission-free alternatives to conventional models with combustion engines. New source of revenue from collaborations and selling the information collected.
	REPUTATION		
Reputation: Intensifying ESG performance and integrating ESG into the corporate strategy	Intensifying ESG performance and gradually integrating ESG (especially climate protection) into the corporate strategy could significantly boost the company's reputation among its stakeholders.	Medium-term	Increased revenue resulting from a better reputation with potential and existing customers; better terms in the financial market thanks to better ESG performance and rating results.
	MARKET		
Market trends: individual mobility in urban areas	As a result of climate-related driving bans, increasingly enforced traffic calming measures in inner cities, resulting in a shortage of parking spaces, and expansion measures for two-wheeler infrastructure, two-wheelers (incl. motorcycles, e-bicycles, stand-up scooters, e-motorcycles / motorcycles with e-fuels) could replace cars as the dominant form of individual mobility in urban settings.	Medium-term	Increased revenue from more sales of low-volume PTWs, stand-up scooters, e-motorcycles, and motorcycles suitable for e-fuels, as well as e-bicycles for urban use.
Changes in customer behavior: improved competitive position thanks to pioneering role with alternative drive technologies	The change to a new (lower-emission or zero-emission) technology could turn the structure of the market on its head and create the opportunity to lead the market by taking on a pioneering role with alternative drive technologies.	Medium-term	Expansion of market share to achieve market leadership with associated increases in revenue.
Material & raw materials: expansion of the depth of added value	Due to climate-related changes (regulations, supply chains that are unstable or no longer economically viable), the business case for in-house production of components or products that were previously purchased could emerge.	Medium-term	Avoiding increased procurement costs, higher revenues from the sale of components produced in-house.

*The timescales under consideration are considered in the short-, medium-, or long-term based on the risk management logic. Specifically, a short-term view means a period of one year, medium-term means a timescale of 1-5 years, and long-term means a timescale of more than 5 years.

CLIMATE RISK AND VULNERABILITY ANALYSIS FOR PRODUCTION ACTIVITIES

A special software solution was used to analyze the physical impact of climate change on the company (chronic and acute). Production-relevant PIERER Mobility Group sites (especially plants and warehouses) were examined here to determine their present and future level of exposure. The list from Appendix A in Annex I to Commission Delegated Regulation (EU) 2021/2139 ("Climate Regulation") supplementing Regulation (EU) 2020/852 of the European Parliament and of the Council ("Taxonomy Regulation") was used as a catalog for the physical risks that need to be investigated.

The analysis is divided into several steps.

Initially, the aim of the analysis was to explore the possible consequences of physical climate-related risks for carrying out the group's core business, the manufacture of motorcycles and other vehicles. Production and storage facilities were defined as relevant sites for this purpose.

The next step was to determine the risks from the above-mentioned list that actually occur at these sites using a software solution and draw up a shortlist of potentially relevant risks. Working in close cooperation with the Risk Management department, the risks that could actually have an adverse impact on production activities were selected from this shortlist.

Finally, these risks were examined to establish how frequently they occur at the principal sites, with the above-mentioned software solution[1] being consulted.

Two different time periods were examined to make it possible to work out necessary countermeasures more precisely:

- Current: period from today through to 2030
- Future: period from 2031 to 2060

As any glimpse into the future is always shaped by certain assumptions and contingencies, the analysis was based on two contrasting development scenarios. These Shared Socio-economic Pathways (SSP) describe various ambitious social and political developments in the fight against global warming combined with the scientific findings on the concentration of CO_2 in the atmosphere. They are also used in the Sixth Assessment Report of the Intergovernmental Panel on Climate Change.

The group analysis is based on the following two scenarios that make forecasts of the socio-economic trend[2] and the global warming trend[3].

- SSP1-2.6: Describes a gradual but consistent change in society and politics to embrace a sustainable lifestyle that focuses on human well-being. Global warming by the year 2100 probably won't exceed 2°C. Avoiding any further climate change and adapting to live with the consequences of the climate change that has already occurred will happen without any major challenges.
- SSP5-8.5: Describes a change with major technological innovation in competitive markets and exploitation of fossil resources. Global warming by the year 2100 is very likely to exceed 2°C and progress toward 4°C. Adaptation and avoidance measures will face major challenges.

1 The software solution processes verified scientific data, which is also used in the Assessment Reports of the Intergovernmental Panel on Climate Change. These are combined with hazard layers designed by the provider's experts.

2 Keywan Riahi, Detlef P. van Vuuren, Elmar Kriegler, Jae Edmonds, Brian C. O'Neill, Shinichiro Fujimori, Nico Bauer, Katherine Calvin, Rob Dellink, Oliver Fricko, Wolfgang Lutz, Alexander Popp, Jesus Crespo Cuaresma, Samir KC, Marian Leimbach, Leiwen Jiang, Tom Kram, Shilpa Rao, Johannes Emmerling, Kristie Ebi, Tomoko Hasegawa, Petr Havlik, Florian Humpenöder, Lara Aleluia Da Silva, Steve Smith, Elke Stehfest, Valentina Bosetti, Jiyong Eom, David Gernaat, Toshihiko Masui, Joeri Rogelj, Jessica Strefler, Laurent Drouet, Volker Krey, Gunnar Luderer, Mathijs Harmsen, Kiyoshi Takahashi, Lavinia Baumstark, Jonathan C. Doelman, Mikiko Kainuma, Zbigniew Klimont, Giacomo Marangoni, Hermann Lotze-Campen, Michael Obersteiner, Andrzej Tabeau, Massimo Tavoni, The Shared Socioeconomic Pathways and their energy, land use, and greenhouse gas emissions implications: An overview, Global Environmental Change, Volume 42, 2017, Pages 153-168, ISSN 0959-3780, https://doi.org/10.1016/j.gloenvcha.2016.05.009 (https://www.sciencedirect.com/science/article/pii/S0959378016300681)

3 IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press, Cambridge, United Kingdom and New York, NY, USA, pp. 3–32, doi:10.1017/9781009157896.001

Following the analysis, the results were discussed with Risk Management and relevant potential impacts were added. The results of this analysis are described in the table below. Information on the classification of the risk is not to be understood to constitute the level of financial loss, but instead depicts the intensity or change in the intensity of the individual risks, as specified in the software solution that is used.

Type	Manifestation	Potential impacts	Up to 2030		Up to 2060	
			SSP1-2.6	SSP5-8.5	SSP1-2.6	SSP5-8.5
Acute	Heat wave	Falling productivity	Very high	Very high	Very high	Very high
	Heavy precipitation (e.g., rain, hail, snow)	Disruption of journeys to work, the supply chain, and production; disruption of the energy supply	Very high	Very high	Very high	Very high
	River floods	Disruption of journeys to work, the supply chain, and production; disruption of the energy supply	High	High	High	High
Chronic	Changes to precipitation patterns (winter, summer)	Disruption of journeys to work, the supply chain, and production;	Very high	Very high	Very high	Very high
	Heat stress	Falling productivity	High	High	High	Very high

Further consequences resulting from these findings will be established in further steps in the process, and this is scheduled to take place in the period following publication of this report. The results of the analysis are equally considered and processed in the risk management process to ensure an inclusive approach.

ENVIRONMENTAL MANAGEMENT

For the internal environmental report, which is updated each year, a comprehensive survey of the company to ascertain environmental aspects and its environmental performance was also carried out in the 2022 financial year. In addition, objectives, measures, and basic actions to improve environmental performance were defined. This is controlled by an environmental management system certified in accordance with DIN EN ISO 14001:2015. Responsibility for this system rests with the Quality Management department, which is assigned to the COO within the organization. The scope of environmental management certification includes the PIERER Mobility Group's development, logistics, and production sites[1] in Munderfing and Mattighofen. Workshops with key employees from the R&D, Production/Infrastructure, and Purchasing departments are conducted in order to determine and evaluate the materiality of environmental aspects within the company each year. The evaluation method covers both direct and indirect environmental aspects and also includes emergency situations. Environmental objectives are then worked out from the key environmental aspects that are identified. This ensures a continuous improvement to environmental management.

As part of their onboarding, each production employee receives training on environmental management within the PIERER Mobility Group and is then obliged to act in an ecologically responsible manner. In addition, e-learning courses on the environmental management system and waste separation is offered to all employees on a voluntary basis.

ENERGY AND WATER CONSUMPTION

Once a year, the materiality of the environmental aspects is determined and evaluated in the company in the form of workshops with key employees from the R&D, Production, Real Estate Management, Logistics, and Purchasing departments. Both energy and water consumption were classified as being not significant given the current internal production processes. In 2022, the annual drinking water consumption throughout the environmental management system[2] was around 21,000 cubic meters. This is equivalent to roughly 5.3 m³ per employee at the ISO 14001 certified sites in Mattighofen and Munderfing and is therefore very low. Water is mainly used for social areas and for cleaning purposes. Water consumption in the production process is extremely low.

1 With the exception of PIERER Produktion GmbH, Munderfing

2 The scope of the environmental management system includes the KTM AG companies with the areas of vehicle assembly, development, parts center, engine construction, mechanical production, logistics center, as well as KTM Components in the areas of suspension, exhaust, and frame. The annual consumption volume of 21,000 cubic meters (2021: 19,000 m³) includes water consumption from production (2022: 4,876 m³, 2021: 4,185 m³).

ENERGY EFFICIENCY

The current energy situation was surveyed as part of the energy audit. The next energy audit will be conducted during 2024. PIERER Mobility AG has already implemented various energy-saving projects. For example, the lighting in all production and storage facilities at the Munderfing and Mattighofen sites is being replaced with energy-efficient LED lighting.

Furthermore, the group is increasing the use of solar energy, including for its own needs, by fitting new photovoltaic installations. The goal is to keep the amount of power for the company's own consumption at a high level by constructing further installations.

The construction of the photovoltaic installations on the roofs of Logistics Center 2 (approx. 3,705 kWPeak) and the Motorsport building (approx. 375 kWPeak) was completed in 2023. The installation on the roof of Logistics Center 2 is scheduled to start operating at the end of 2023. Alongside the two photovoltaic projects, a 30 kV energy ring has been created in the North Munderfing industrial park, linking together five buildings (including the largest consumers, the KTM component plant and engine plant) in the Munderfing industrial park. The energy ring has been in operation since the third quarter of 2023. This has enabled the amount of solar power from the above-mentioned installations that the company uses itself to increase to approx. 80 %.

Photovoltaic installations	Plant output in kWPeak	Energy production in kWh per year	CO_2 saving in tons per year*	Cost saving	Use
House of Brands (in operation)	114	114,400	40	Cannot be estimated reliably due to the volatility of electricity prices.	Excess feed-in
Logistics Center 1 (in operation)	4,000	4.0 Mio.	1,400		Full feed-in
Logistics Center 2 (in operation from the end of 2023)	3,705	3.7 Mio.	1,295	Cannot be estimated reliably due to the volatility of electricity prices.	Excess feed-in
Component plant (in operation)	3,800	3.8 Mio.	1,330		Full feed-in
Motorsport (in operation)	375	375,000	131	Cannot be estimated reliably due to the volatility of electricity prices.	Excess feed-in
Headquarters in Mattighofen	130	130,000	46	Cannot be estimated reliably due to the volatility of electricity prices.	Excess feed-in

* Calculated with a CO_2 saving of 350 g/kWh

MEASURES TO REDUCE VEHICLE EMISSIONS

An important aspect of the development of road-registered (homologated) vehicles is reducing emissions of exhaust gases and noise, which are caused by the combustion process itself and by any evaporative emissions of the hydrocarbons (= fuel) contained in the vehicle. In addition to the primary goal of driving forward product and technology development in the area of sustainable mobility concepts, such as electrified vehicles, in 2022 the R&D team continued to focus on increasing product development efficiency by evaluating and evolving the process landscape in the area of research and development as well as in production. The aim is to launch products that meet the latest environmental standards or are environmentally friendly throughout their product life cycle. Vehicle types that are first approved from January 1, 2024, must meet the Euro 5+ requirements. The main new features in the regulation include the extended functional scope of the OBD-2 system, adjustments to the proof of the durability of emission-reducing devices, and a reduction in the exhaust gas limits for Enduro and Trial motorcycles. Since September 2023, the extended RD-ASEP noise measurement procedure of UNECE R41-05 has also been applicable to new vehicle types (see EU Regulation 168/2013 on the Euro 5 requirements on page 62 of the Sustainability Report 2022. Further information can also be found below in the paragraphs “Key figures: Greenhouse gas emissions in CO_2 equivalents” and “Fleet emissions (Scope 3)”).

A further priority lies in the development of CO_2 emission neutral electric vehicles for various areas of application. Since 2014, KTM AG’s range has included one such product, namely the purely electrically powered “KTM FREERIDE E-XC” model. Since the FREERIDE E-XC was launched on the market, KTM has been a pioneer in the light e-mobility segment. Thanks to a new generation of battery cells, it has been possible to increase the range here by 50 % in recent years. With the KTM SX-E 5, Husqvarna EE 5 and GASGAS MC-E 5 models, electric competition motorcycles for children have been put into production and launched on the market. In the past reporting year, the product family has been expanded to include more models with reduced power and battery capacity in the form of the KTM SX-E 3 and Husqvarna EE 3, as well as the GASGAS MC-E 3. The product range also includes electric balance bikes. These electrically powered bikes with a wide range of uses and great versatility provide an entry-level platform for the youngest riders.

PIERER Mobility AG understands a sustainable approach to mean, above all, the phased reduction of emissions over the entire product life cycle. Thanks to many years of intensive development work in the field of electric traction systems for PTWs, a substantial technology platform has been created to complement the first products available on the market. This will enable further vehicles powered by alternative energy to be launched on the market in the years ahead. For further information, please refer to page 57 of the Sustainability Report 2022.

In addition, we are working with project partners on concepts for sustainable two-wheeler mobility in urban living spaces. For example, the “EMotion” research project described at the beginning shows how the impact of climate change can be reduced in the best way possible.

In terms of future developments in the field of emissions testing, it is important to wait to see what changes the legislator will propose when it comes to type approval regulations. For vehicles in class L (light 2-, 3-, and 4-wheel vehicles), no real driving emissions tests are currently prescribed. In addition, there are no suitable RDE measurement systems for motorcycles.

With one of the highest levels of investment in innovation in the industry – currently 8-9 % of revenue is invested in R&D – the PIERER Mobility Group is meeting the challenges of today and will continue to invest heavily in technology. In the 2022 financial year, € 23.2 million (previous year: € 18.8 million) was spent on developing alternative drive technologies (e.g., electric mobility). The share of all electrified two-wheelers was 19.1 % in 2022 (previous year: 18.4 %).

END-OF-LIFE IMPACT ON THE CLIMATE AND ENVIRONMENT

The PIERER Mobility Group pays special attention to recovering and recycling lithium-ion batteries. The company has an established working relationship with a renowned recycling company to ensure that batteries are disposed of in accordance with EU regulations. This covers the collection of traction batteries fitted in electric vehicles of the company. For further information, please refer to page 61 of the Sustainability Report 2022.

The patented CONEXUS technology, which was developed in-house, combines the efficient use of materials with excellent recycling capabilities. Targeted use of the individual material partners allows their characteristic profiles to be exploited to the full. The first series components are already available as accessories for all full-size MX and Enduro models of the KTM, Husqvarna, and GASGAS brands and will also become a fixed component of selected vehicle models from the beginning of 2023. The CONEXUS technology not only enables the materials to be bonded, but also allows the used materials to be separated easily and by type. This allows the best possible end-of-life scenario to be achieved for the material in question. For further information, please refer to page 58 of the Sustainability Report 2022.

© Husqvarna Skutta, Charger and Batterie, Husqvarna Motorcycles

KEY FIGURES AND TARGETS

As part of the annual environmental audit in line with ISO 14001:2015, an environmental program was defined with the following environmental targets for the current year:

Environ-mental aspect	Target	Action	To be imple-mented by	Status	SDGs
Emergency preparedness	**Ensure safe production operations**	Project to redesign the emergency operational plans	12/2023	◑	
Packaging material	**Reduce the amount of packaging material used**	Increased use of recyclable packaging in vehicle assembly	Ongoing projects	◑	
Waste logistics	**Improve the separation of waste into different types**	Improve the separation of recyclable materials by providing recycling islands in the office areas. Test stations already set up in the R&D apprentice workshop and electrical workshop. Separate residual waste, plastic, paper	12/2024	◑	
Energy consumption	**Increase the use of solar energy to save fossil fuels**	Construct a photovoltaic installation for Logistics Center 2 and Motorsport building for own use	12/2023	◑	
		Create a private 30 kV energy ring. This means that the rate of consumption for the company's own needs of the photovoltaic installation can be increased to approx. 75-80 %.	12/2023	◑	
	Increase energy efficiency	Switchover to LEDs in the Logistics Center Modules 1-3, engine construction	12/2023	◑	
		Establish energy monitoring for a selected area (technical solution, smart meters)	12/2023	◑	
		Optimize the parking lot lighting at the main plant by using LEDs	Ongoing	◑	
Carbon footprint (1) – indirect	**Strengthen the local supplier base**	Targeted financial support for specific local suppliers	Ongoing	◑	
Carbon footprint (2) – vehicles	**Reduce specific CO_2 emissions (GRI)**	R&D activities will focus on reducing noise and exhaust emissions from combustion engines (Euro+)	Ongoing	◑	
		Further development of combustion engines to embrace the use of synthetic fuels	Ongoing	◑	
		Develop a modular product platform (including a new generation of engines to significantly reduce CO_2 and fuel consumption)	12/2028	◑	
	Reduce CO_2 produced in the manufacture of vehicles	Define a method of calculation to calculate the carbon footprint at the vehicle level	12/2023	◑	

Environmental aspect	Target	Action	To be implemented by	Status	SDGs
Environmental impact of suppliers	**Establish transparency regarding the environmental standard in the supply chain, including identifying actions**	Include environmental criteria in the supplier assessment (100 % of all suppliers are to be assessed)	12/2023	◑	
		Increased focus on ESG issues during visits to suppliers (for all visits to suppliers outside the EU)	12/2023	◑	
Light emissions	**Reduce light emissions in parking areas**	Use downward-radiating lights for new car parking spaces and gradually replace some existing lighting	12/2024	◑	
Waste logistics	**Reduce the amount of residual waste by 10 % in relation to the total amount of waste from the reference year 2019**	Improve the separation of recyclable materials by providing recycling islands in the office areas.	12/2024	◑	

ACTIONS COMPLETED

Environmental aspect	Target	Action	To be implemented by	Status	SDGs
Emergency preparedness	**Ensure safe production operations**	Observe all safety-relevant floor markings	12/2022	● ongoing renewal	
Waste logistics	**Improve the separation of waste into different types**	Compress oil-contaminated packaging using a press to reduce the number of consignments of waste	12/2022	●	
		Improve the collection of plastics. Separate collection of PET bottles and films by type (Logistics Center 1, Module 2, expansion to Group)	12/2022	●	
Energy consumption	**Increase the use of solar energy to save fossil fuels**	Installation of photovoltaic systems on roofs: KTM Components (operator ÖkoSolar, 3.8 MW of electricity for the public grid, in operation since 2022)	12/2022	●	
	Increase energy efficiency	Switchover to LEDs in Spare Parts Center and Frame	12/2022	●	
Carbon footprint vehicles	**By 2030, at least a third of group revenue will be generated with electrified two-wheelers. > Target is currently no longer being pursued**	Expand the Anif site as an e-mobility competence center (recruit approx. 120–150 employees and set up a specific test bench/create the infrastructure)	12/2022	●	

Environmental aspect	Target	Action	To be implemented by	Status	SDGs
		Kick-off of R&D vehicle projects (Freeride-LV, electrified sports minicycles)	12/2022	●	
		Kick-off of R&D platform development projects in the area of e-drive and e-storage systems	12/2022	●	
Environmental impact of suppliers	**Establish transparency regarding the environmental standard in the supply chain, including identifying actions**	Introduce SAQ (NQC), include 80 % of series suppliers	12/2022	●	

Key: ◑ In progress, ● completed, ⛀ suspended

KEY FIGURES: GREENHOUSE GAS EMISSIONS IN CO_2 EQUIVALENTS

KTM AG's production sites, such as vehicle assembly, frame construction, and exhaust production, are not part of the energy-intensive industry. At these and other major sites of the PIERER Mobility Group, greenhouse gas emissions are generated directly from the burning of fossil fuels **(Scope 1 emissions)** and indirectly from district heating and electricity consumption **(Scope 2 emissions)**. This means that the percentage of greenhouse gas emissions (in CO_2 equivalents) associated with the production or assembly of the company's products is currently around 1 % (Scope 1–2 emissions "market-based". This calculation does not yet include the share from purchased parts. Efforts are being made to expand the collection of data). Most of the greenhouse gas emissions, around 99 %, are generated when the vehicles that are sold are actually used **(Scope 3 emissions)**.

GRI 305-1, 305-2, 305-3

Carbon footprint of the PIERER Mobility Group	**2022**			**2021**			**2020**		
Greenhouse gas emissions according to the Greenhouse Gas Protocol (Scope 1-3):	in t CO_2-e	share of "location based" in percent	share of "market based" in percent	in t CO_2-e	share of "location based" in percent	share of "market based" in percent	in t CO_2-e	share of "location based" in percent	share of "market based" in percent
Scope 1: Direct greenhouse gas emissions	**7,095.97**	**0.84%**	**0.84%**	**6,677.29**	**0.70%**	**0.70%**	**5,679.78**	**0.67%**	**0.67%**
Emissions from natural gas procurement at PIERER Mobility Group sites [1]	3,822.90	53.87%	53.87%	3,898.10	58.38%	58.38%	3,295.77	58.03%	58.03%
Emissions from vehicle fleet	1,889.17	26.62%	26.62%	1,638.10	24.53%	24.53%	1,565.46	27.56%	27.56%
Emissions from test benches	1,383.90	19.50%	19.50%	1,141.09	17.09%	17.09%	818.54	14.41%	14.41%
Scope 2: Indirect greenhouse gas emissions "location based" [2]	**5,624.97**	**0.61%**		**5,136.72**	**0.54%**		**5,036.93**	**0.60%**	
Emissions from district heat procurement [2]	114.29	2.10%		134.39	2.62%		125.73	2.50%	
Emissions from electricity procurement at PIERER Mobility Group sites [1]	5,510.68	97.90%		5,002.34	97.38%		4,911.20	97.50%	
Scope 2: Indirect greenhouse gas emissions "market based" [2]	**174.56**		**0.02%**	**213.09**		**0.02%**	**1,154.76**		**0.14%**
District heating emissions	114.29		64.43%	136.40		64.01%	125.73		10.89%
Emissions from electricity procurement at PIERER Mobility Group sites [1]	60.27		55.21%	76.68		35.99%	1,029.03		89.11%

GRI 305-1, 305-2, 305-3

Carbon footprint of the PIERER Mobility Group	2022			2021			2020		
Scope 3: Indirect greenhouse gas emissions	**849,857.61**	**98.50%**	**99.14%**	**936,260.90**	**98.75%**	**99.27%**	**832,231.63**	**98.73%**	**99.19%**
Emissions from commuting by aircraft	3,052.85	0.36%	0.36%	1,315.40	0.14%	0.14%	738.05	0.09%	0.09%
Emissions from commuting by private vehicles	39.87	0.00%	0.00%	54.79	0.01%	0.01%	33.01	0.00%	0.00%
Emissions from commuting by rental car	188.46	0.02%	0.02%	86.31	0.01%	0.01%	61.03	0.01%	0.01%
Emissions from commuting by train [3]	6.48	0.00%	0.00%	2.14	0.00%	0.00%	1.74	0.00%	0.00%
Emissions from commuting by taxi [3]	72.36	0.01%	0.01%	31.05	0.00%	0.00%	16.26	0.00%	0.00%
Emissions from paper [3]	2,209.13	0.26%	0.26%	2,144.03	0.23%	0.23%	1,617.20	0.19%	0.19%
Emissions from use phase of vehicles sold [4]	831,564.53	99.33%	99.33%	932,627.17	99.61%	99.61%	829,764,35	99.70%	99.70%
Total emissions "location based"	**849,421.70**	**100,00%**		**948,074.91**	**100.00%**		**842,948.34**	**100.00%**	
Total emissions "market based"	**844,404.20**		**100.00%**	**943,151.28**		**100.00%**	**839,066.17**		**100.00%**

CO_2 emissions per vehicle sold "location based", rounded (305-4) [2, 5, 6]	2022	2021	2020
t CO_2-e per vehicle sold (Scope 1-2)	**0.05**	**0.05**	**0.05**
t CO_2-e per vehicle sold (Scope 1-3)	**3.74**	**3.80**	**3.67**

Energy intensity, rounded (302-3) [7]	2022	2021	2020
MWh per vehicle sold	0.21	0.18	0.16
Mwh per vehicle produced	0.21	0.25	0.27
Water consumption in m^3 per vehicle sold	0.11	0.08	0.07

For the calculation of CO_2 equivalents for Scope 1-2, the conversion factors of the Austria Federal Environment Agency and the UK Department for Environment, Food & Regulatory Affairs (DEFRA) for 2016, 2020, 2021 & 2022 were used.
The base year of the calculation is 2018, the calculation of CO_2 equivalents for Scope 1-3 was published for the first time in the Sustainability Report 2019. In principle, the data of the main company and production sites in Austria are included in the evaluation. In addition to PIERER Mobility AG, this also includes KTM AG with its subsidiaries.

1 Evaluation excluding PIERER Innovation GmbH, Avocodo GmbH. The increased energy consumption in the 2022 reporting year can be attributed, among other things, to the increased production volume. Since February 2021, the site in Anif has been heated using a heat pump (natural gas has not been procured since the move).

2 Emissions from district heating at the KTM Sportcar GmbH site. The significant reduction in consumption of district heating is due to the major rebuild at the Graz site, during which all production was stopped (for around one month). This is why a slight decrease in gas and electricity consumption was recorded here. Since 2020, emissions have also been calculated using a "market based" method. However, for better traceability, the calculation of the emission shares in % in the reporting year was not adopted here and "location based" was used for the CO_2 emissions per vehicle sold (the difference between "market and location based" is very small and therefore negligible). In the case of KTM Sportcar GmbH, the emission factor from the Federal Environment Agency was used for the calculation for district heating, because no information on the emission data is available from the supplier. The low proportion of indirect greenhouse gas emissions is due to the supply mix in the 2022 and 2021 supply years. The majority of the kWh of electricity purchased comes from hydropower. The district heating and electricity consumption figures for KTM Sportcar GmbH in 2020 were adjusted retrospectively.

3 Evaluation including PIERER Innovation GmbH.

4 Calculation based on EU homologation data on fuel consumption according to WMTC and taking into account average annual mileage and average service life. The Enduro Competition models are homologated in a mechanically and electronically throttled condition. However, the motorcycles are often used in an unthrottled condition at amateur and professional racing events, at the customer's own risk.
This results in significantly higher consumption and greenhouse gas emissions.
The KTM and Husqvarna models sold directly by Bajaj Auto are also included in the calculation.

5 Calculated from the total carbon footprint (market based Scope 1+2 and Scope 1-3) divided by the number of vehicles sold (PTW and X-BOW).

6 Calculation excl. E-bicycles, also adjusted retrospectively for the year 2021.

7 Calculated from electricity, district heating and natural gas consumption divided by the total number of vehicles sold (PTW and X-BOW). Since 2020, "market-based" electricity and district heating consumption has been used for the calculation.

Motorcycles sold in the B2C (retail) business and X-BOW (excl. E-bicycles) were used to calculate the use phase: Number of vehicles used for the calculation 226,849 (previous year: 249,534 excl. E-bicycles). Motorcycle models that are not eligible for registration (e.g. motocross, cross country, sport minicycles) were not considered due to an insufficient database (missing consumption and mileage data). A total of 375,492 motorcycles were sold in the reporting year (previous year: 332,881).

The values included in the evaluation are based on EU homologation data for the respective models. In 2021, there were several homologation amendments to the MY21 Street and MY22 Enduro models due to changes in catalytic converter compositions. This had a subsequent impact on fleet emissions and consumption in the 2020 reporting year.

According to the Kyoto Protocol, there are seven main greenhouse gases that contribute to climate change: Carbon dioxide (CO_2), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulfur hexafluoride (SF6), and nitrogen trifluoride (NF3). CO_2-e is the universal unit of measurement used to indicate the global warming potential (GWP) of each of the seven greenhouse gases, expressed as the GWP of one unit of carbon dioxide. It is used to assess the release (or avoidance of release) of various greenhouse gases on a common basis.

GREENHOUSE GAS EMISSIONS PER VEHICLE SOLD (SCOPE 1–3)

Greenhouse gas emissions per vehicle sold in the production phase (Scope 1–2 "location-based") were 0.05 t CO_2-e (previous year: 0.05 t CO_2-e) and in the use phase (Scope 1–3) 3.74 t CO_2-e (previous year: 3.80 t CO_2-e). This is equivalent to a reduction in direct and indirect greenhouse gas emissions per vehicle sold of around 1.4 % (based on Scope 1–3 emissions "location-based") compared to the previous year. The increase in direct and indirect greenhouse gas emissions per vehicle sold (based on Scope 1–2, "location based") resulted, among other things, from the increased production volume and the increase in business travel following coronavirus. The calculation included motorcycles sold in the B2C (retail) business (including the KTM and Husqvarna models sold directly by Bajaj Auto, but excluding e-bicycles).

FLEET EMISSIONS (SCOPE 3)

The calculations for CO_2 emissions and fuel consumption of PIERER Mobility's sold vehicle fleet are based on the specifications and assumptions of the World-Harmonized Motorcycle Test Cycle (WMTC). This method was chosen because it provides a globally harmonized approach. Previously, the calculations were based on the specifications and assumptions of the New European Driving Cycle (NEDC) or the voluntary commitment of the ACEM (European Association of Motorcycle Manufacturers). When the WMTC test cycle and the EURO 4 emissions standard were introduced on January 1, 2016, the reporting year 2016 was chosen as the base year. To improve understanding, the vehicle consumption is not given in joules, but as usual in l/100 km.

The average CO_2 emissions of the reported vehicle fleet of 226,806 units were 79.59 g/km[1] in 2022 (internal calculation by PIERER Mobility AG). This means that CO_2 fleet emissions increased by 0.23 g/km in the reporting year, also thanks to the continued strong growth in sales of ICE models[2] with medium and large displacements (> 500 cc) (2021: 79.36 g/km). The LC8c (790/890 & 901) and LC8 (1290) engine platform models recorded sales of 36,356 units, representing > 16 % of the model mix sold.

Nevertheless, between 2016 and 2022 PIERER Mobility AG reduced the average CO_2 emissions of its newly sold vehicles by 2.06 % (2021: 2.34 %)[3]. Average fuel consumption decreased by 0.02 l/km and was 3.39 l/100km in the 2022 reporting year[4]. Fleet fuel consumption was reduced by 2.98 % compared to the 2016 base year (2016: 3.5 l/100km). This equates to a total energy saving of 805.64 gigajoules in the 2022 reporting year[5].

1 Since 01/2016, all L-category vehicles in the EU must be registered according to the new type test cycle WMTC. This concerns all two-, three-, or four-wheeled vehicles according to Article 4 and Annex I (Enduro motorcycles (L3e-AxE (x = 1, 2 or 3)), trial motorcycles (L3e-AxT (x = 1, 2 or 3)) and heavy off-road quads (L7e-B)) of EU Regulation 2013/168/EU, which are intended to be driven on public roads. The fleet value is based on the homologated test values according to WMTC.
2 The incorrectly recorded CO_2 emission figure for a KTM model from Bajaj Auto required a correction of the fleet emission figure retrospectively for the 2021 and 2020 reporting years.
3 GRI 302-5
4 The consumption is based on the homologated test values according to WMTC.
5 Calculation in gigajoules based on Net CV according to DEFRA for "Petrol (average biofuel blend)".

IMPRINT

Owner and publisher
PIERER Mobility AG
Edisonstrasse 1
4600 Wels, Austria
FN 78112 x / Wels Provincial and Commercial Court

CONTACT

Melinda Busáné Bellér
Investor Relations, Sustainability
Telefon: +43 1 533 1 433 - 70
E-Mail: ir@pierermobility.com
Website: www.pierermobility.com

CI-Konzept: LX media GmbH, 4600 Wels, www.lx-media.at
Design: Grafik-Buero Elena Gratzer, 4600 Wels, www.grafik-buero.at
Photos: KTM-archive, Husqvarna Motorcycles-archive