



## SUSTAINABILITY REPORT

PREFACE FROM THE CEO	Page 03
2023 AT A GLANCE	Page 04
GENERAL INFORMATION	Page 05
PLANET	Page 13
PEOPLE AT MUNICH ELECTRIFICATION	Page 32
PEOPLE IN OUR VALUE CHAIN	Page 42
GOVERNANCE	Page 45
OUTLOOK FOR 2024	——————————————————————————————————————
CONTACT	Page 53

### SUSTAINABILITY REPORT PREFACE FROM THE CEO

The year 2023 was a very successful year for Munich Electrification Group (ME) with a significant growth regarding several indicators. We shipped 68% more products in 2023 compared to the previous year and the team headcount grew by 50% compared to 2022. Also, our revenue increased by ~17% to 31m€.

This strong growth on the economical dimension of the three pillars of sustainability entails challenges for the other two dimensions - ecological and social. In order to be able to tackle those challenges in regards to internal human resources, the sustainability team has been expanded to two sustainability managers throughout the year. All in all, we are proud that our core business has an overall positive impact on people and the planet by nature. Our products contribute to the electrification of mobility and the energy transition in its final application.

We are taking ME's corporate responsibility for environmental, social and governance topics (ESG) very seriously and intend to go ahead and beyond the legal obligations. The regulatory landscape including the Corporate Sustainability Reporting Directive (CSRD) is evolving continuously giving clearer guidance on future requirements.

In both areas - corporate sustainability and value chain sustainability - projects have been started and will be continued and implemented in 2024. This report gives insights into ME's performance on various ESG indicators in 2023 and describes plans for the year 2024 to progress further.

ferg - F. fran

GEORG-FRIEDRICH GRAF, CEO



SUSTAINABILITY REPORT
2023 AT A GLANCE

GHG EMISSIONS TOTAL AND TOTAL EMISSIONS OF ~9 50% 192 kg TONS TONS OF CO,E **TEAM GROWTH** WASTE CO<sup>2</sup>E GENDER DIVERSITY 67% 32% 17.2 1.7 % MALE FEMALE **ARE SCOPE 3 EMISSIONS TURNOVER RATE TRAINING HOURS** PER EMPLOYEE

## SUSTAINABILITY REPORT



## SUSTAINABILITY REPORT

#### MUNICH ELECTRIFICATION GROUP SPECIALIZES IN CUTTING-EDGE BATTERY MANAGEMENT SYSTEMS (BMS) AND SOFTWARE SOLUTIONS.

With a commitment to innovation and a passion for pushing the boundaries of what is possible, we aim to contribute to connected mobility and clean energy storage technologies to create a meaningful impact on everyone's life. With its headquarters in Munich, we operate globally with two contracted European production sites one in Germany and one in Hungary.



## GENERAL INFORMATION

#### AT MUNICH ELECTRIFICATION, WE ARE PROPELLED FORWARD BY LIVING THE FOUR VALUES THAT HAVE BEEN DEFINED.

One value is technological leadership: we challenge the status quo of the technologies we use and learn continuously in order to fulfill the customers' needs in the best possible way.

Also, entrepreneurial spirit is a value. We think outof-the-box, embrace change and take smart risks.

Sustainability is another core value at Munich Electrification. We take responsibility for our business activities and all associated actions and strive to contribute to a better future.

Last but not least, our strongest asset is the "we" - our team culture. Inspiring and supporting others fosters the culture of innovation and increases the enjoyment of work.

![](_page_6_Picture_6.jpeg)

## GENERAL INFORMATION **PRODUCT PORTFOLIO**

#### OUR DEDICATION TO THE VALUES DESCRIBED JUST BEFORE IS EVIDENT IN OUR DIVERSE PRODUCT RANGE - BOTH HARDWARE AND SOFTWARE -WHICH INCLUDES WORLD-LEADING BATTERY MANAGEMENT SYSTEMS DESIGNED TO ASSIST IN THE MIGRATION TOWARDS A GREENER FUTURE.

Our core offerings revolve around battery management systems which are vital components of battery packs in electric powertrains. These are used in both passenger and commercial vehicles, in addition to battery energy storage systems (BESS) that work hand-in-hand with renewable energy sources like solar and wind farms. The BMS functions as the operational hub of battery packs, ensuring safe, efficient, and durable performance.

Expanding beyond the core BMS, we offer an array of complementary products tailored to enhance BMS integration within battery architectures like cell monitoring boards (CMB), electro-mechanical devices (e.g. switching devices) or current sense modules. These products support efficient and secure battery control, fostering innovation within the industry.

Ongoing advancement through rigorous research and development allows us to remain at the forefront of the battery management sector, contributing significantly to improved battery lifespan and optimized use of finite resources.

![](_page_7_Picture_5.jpeg)

## GENERAL INFORMATION MARKETS & CUSTOMER GROUPS

### THE COMPANY'S MARKET AND CUSTOMER GROUPS ARE STRATEGICALLY DIVERSIFIED, CATERING TO VARIOUS SECTORS AND REGIONS.

In terms of customer groups, we serve mainly two industries: the automotive industry, encompassing commercial vehicles, passenger cars, sports cars and off-highway vehicles, as well as battery energy storage systems.

With multiple new customers acquired in 2023, ME is expanding its reach. Notably, there is a growing emphasis on the commercial vehicle market and on the market for stationary battery systems, driven by both economic viability and sustainability focus.

Geographically, our primary markets include Europe, with its established presence, alongside the significant US-American market. Additionally, since 2023, we venture into the markets of India and Japan, signifying a strategic expansion into emerging regions with promising opportunities for growth and contribution to electrification in vehicles and in regard to the energy transition.

![](_page_8_Picture_6.jpeg)

## GENERAL INFORMATION **MANAGEMENT STRUCTURE**

#### MUNICH ELECTRIFICATION WAS FOUNDED IN 2014 BY THREE INDUSTRY EXPERTS IN THE FIELD OF ELECTRIC MOBILITY AND AUTOMOTIVE BATTERIES AND ELECTRONICS.

Our CEO Georg-Friedrich Graf is managing director ("Geschäftsführer") jointly with Uwe Wiedemann who also leads sales and business development. Further, there are eight different departments with a Head of each. The company is management-owned to date and not controlled by third parties.

As company growth needs to be reflected also in the organizational structure, ME's organization is being restructured in the beginning of 2024.

![](_page_9_Figure_5.jpeg)

### GENERAL INFORMATION SUSTAINABILITY MANAGEMENT

#### WITH AN INTEGER AND HONEST SUSTAINABILITY MANAGEMENT, MUNICH ELECTRIFICATION SEEKS TO BALANCE ECONOMIC, SOCIAL, AND ENVIRONMENTAL CONSIDERATIONS TO CREATE A MORE RESILIENT AND RESPONSIBLE ORGANIZATION.

At ME, we follow an integrated management system approach, combining the quality standard (ISO 9001) with the environmental one (ISO 14001) for which we both are certified. Also the certification of the standard on occupational health and safety (ISO 45001) was successfully passed in early January of 2024.

In 2023, the sustainability team was doubled in size and reorganized within the company. The responsibilities and tasks have been split as follows:

- **Corporate:** focus on all corporate-related sustainability topics like reporting, sustainability strategy and creating internal awareness for the topics,
- Value Chain: dedication regarding improving the transparency within our value chain and to minimizing our environmental and social impacts upstream and downstream.

![](_page_10_Figure_7.jpeg)

## GENERAL INFORMATION SUSTAINABILITY REPORTING

The sustainability team is part of the People department with regular interfaces to almost all other departments from Finance to Product development. The Sustainability team directly reports to the department lead and has the mandate to advise on sustainability issues.

The reporting year equals the calendar year of 2023, which is also the financial year. The data points that are being disclosed in this report are inspired by the European Sustainability Reporting Standard (ESRS) in preparation for when it becomes applicable to Munich Electrification. However, in this report only a small fraction of the comprehensive standard is being covered.

![](_page_11_Picture_4.jpeg)

Our Sustainability Team at Munich Electrification

### SUSTAINABILITY REPORT

![](_page_12_Picture_1.jpeg)

### PLANET GLOBAL RISKS

#### ACCORDING TO THE RISK REPORT 2023 OF THE WORLD ECONOMIC FORUM, THE IMPACTS OF RISKS REGARDING CLIMATE CHANGE (MITIGATION AND ADAPTATION) ARE ESTIMATED TO BE THE HIGHEST OF ALL RISKS OVER A 10-YEAR PERIOD.

Other consequences of climate change like the loss of biodiversity or extreme weather events follow in this ranking. Environmental challenges are certainly dominating the global risks in the mid-to long-term. Recognizing the urgency of these issues, the management of greenhouse gas (GHG) emissions has become increasingly important and also demanded by different stakeholders.

![](_page_13_Picture_3.jpeg)

# **ENERGY CONSUMPTION AND SOURCES**

At our headquarters in Munich, we mainly acquire electricity from renewable sources. Only one last electricity meter was served by a conventional electricity tariff emitting  $235 \text{ g CO}_2 \text{e/kWh}$  in 2023 as we took over an additional office area. This has now also been switched to a green tariff. Overall, we have a **renewable electricity share of 93%**. Regarding the heating, our facilities operate on district heating with an emission factor of 66 g CO<sub>2</sub>e/kWh. At our offices, we consumed an energy amount of close to 425,000 kWh for electricity and heating throughout the year 2023.

As it is furthermore crucial where the electricity for the assembly of our products at the sites of our manufacturing partners comes from, thus, this is one of the indicators we ask from them. We consequently collaborate to reduce these emissions by increasing the share of renewable energy. They both have either net zero goals by 2030 or are already using 100% renewable sources.

Munich Electrification provides a small fleet of company electric vehicles (BEV and PHEV) that can be used for business travels but also private travels. For work-related drives, costs for charging or fueling will be reimbursed what goes into the account of fuel consumption. The overall amount of fuel used is 1,081 liters in 2023.

![](_page_14_Figure_5.jpeg)

### PLANET WATER

For data on the water consumption at Munich Electrification in 2023, the value from 2022 has been extrapolated onto the average headcount number. This results in an approximated water consumption of 553 m<sup>3</sup>. This includes water that is used in sanitary facilities, the kitchen for preparing lunch as well as the drinking water.

![](_page_15_Picture_2.jpeg)

## **WASTE**

Waste generated within ME's operations comprises only usual day-to-day waste from the canteen, office areas and sanitation facilities. Information on the volumes or masses of the waste generated at our headquarters can not be provided by the waste management company.

Therefore, we decided to conduct a two-week bin survey in order to be able to extrapolate that information to the entire reporting year. At our facilities, the separation of only paper/cardboard and residual waste is possible. The approximation of total waste for 2023 resulted in 1.3 tons of paper waste (14 %) that goes into a closed-loop recycling and 7.7 tons of residual waste (86%) that is being incinerated. The paper accounts for 28 kg CO<sub>2</sub>e whereas the incineration of the residual waste leads to emissions of 164 kg CO<sub>2</sub>e - an overall waste carbon footprint of **192 kg CO<sub>2</sub>e** (see graph on page 19).

One measure that is already in place is to re-use the packaging of parcels we receive for outbound logistics. This reduces the amount of waste and fosters circularity of materials.

![](_page_16_Picture_4.jpeg)

# CORPORATE CARBON FOOTPRINT (CCF)

We already published a report including parts of our corporate carbon footprint in the past two years. As we strive for a comprehensive measurement of all emissions to then take according reduction actions and also with the upcoming regulatory obligations in mind, we want to anticipate and professionalize by including all direct and indirect emissions (Scopes 1 to 3) calculated according to the Greenhouse Gas Protocol (GHG Protocol). This is the most widely used standard on how to calculate and disclose emissions in non-financial reports. The year of 2023 is meant to form the carbon baseline for target setting and reduction achievements for the near- to long-term future. A high accuracy in data as well as a scientific integrity within the emission calculation methodology is crucial to obtain robust results. We use the carbon accounting software from Normative<sup>1</sup> for this year's calculations with the consolidation approach of operational control. Besides carbon dioxide (CO<sub>2</sub>), all other greenhouse gases like among others methane  $(CH_{a})$  and nitrous oxide  $(N_{2}O)$  are included and converted into so-called CO<sub>2</sub>-equivalents or short CO<sub>2</sub>e. The emission factors have been selected in the best way possible considering the availability of data for 2023. The goal is to improve the guality of the input data towards supplier-specific data moving away from spend data and thus to increase the emissions factor accuracy for the reporting periods to come.

CO2	CH₄ N₂O	HFCs	SF <sub>6</sub>	NF <sub>3</sub>	
Scope 2 Indirect emissions	↑ Scope 3 Indirect emissio	ons	Scope 1 Direct emissions	Sc Indirect	↑ ope 3 emissions
purchased electricity, steam, heating & cooling for own use	minimized       purchased       purchased       purchased         goods and services       in         if       capital goods       in         if       capital goods       in         if       capital goods       in         if       fuel and energy       in         related activities       in       in         if       transportation       in         and distribution       in       in	waste generated in operations business travel employee commuting eased assets	<ul> <li>In company facilities</li> <li>In company facilities</li> <li>In company vehicles</li> <li>In company vehicles</li> <li>In use of sol products</li> <li>In use of sol products</li> <li>In end-of-lift treatment sold products</li> </ul>	<ul> <li>transportation, distribution</li> <li>processing of sold products</li> <li>use of sold products</li> <li>end-of-life treatment of sold products</li> </ul>	₽       leased assets         ₽       franchises         Im       investments
Upstream activities			Reporting company	Downstream activities	

<sup>&</sup>lt;sup>1</sup> <u>Normative</u> is an enterprise carbon platform providing a foundation of reliable emissions data for companies to plan, implement, and verify the impact of sustainability initiatives. With a carbon accounting engine built on science, a carbon network of supplier data sources, and a team of climate experts, Normative empowers companies to take control of their emissions.

### PLANET **CORPORATE CARBON FOOTPRINT (CCF)**

The overall corporate carbon footprint of Munich Electrification including all direct and indirect emissions (Scope 1, 2 and 3, covering all applicable categories<sup>2</sup>) in the year 2023 amounts to a little over 9,000 tons CO, e. See the breakdown by categories in the graph on the right. To measure the emissions in terms of our growth, meaning to see if the increase in emissions is in direct correlation with the growth of the business, we also calculated emission intensities.

#### This results in 77.5 tons CO<sub>2</sub>e per employee (in full-time equivalents (FTE)) or when looking at revenues generated in 2023, the emission intensity indicator is at 289.1 tons CO<sub>2</sub>e per 1m revenue (in EUR).

![](_page_18_Figure_4.jpeg)

#### Total emissions (tCO,e) breakdown by category

![](_page_18_Figure_6.jpeg)

<sup>2</sup> Upstream leased assets, Processing of sold products, Downstream leased assets, Franchises and Investments are non-applicable categories of Scope 3 for Munich Electrification and therefore excluded.

### PLANET SCOPE 1 AND 2

Scope 1 contains all direct emissions from our operations within our company facilities including company vehicles (i.e. mobile combustion). Scope 2 are indirect emissions from purchased electricity and heating for our own operations.

Within Scope 2, the GHG Protocol asks for two different assessment approaches for the electricity emissions. The **market-based approach** describes the company-specific contract agreements in the market - in our case a green tariff resulting in almost **4 tons CO\_2e** (see graph on the right) - whereas the location-based approach uses the average emission intensity of the local grid. This amounts to  $38 \text{ tons } CO_2e$  for the local grid mix.

#### Total emissions (tCO<sub>2</sub>e) breakdown by category

![](_page_19_Figure_4.jpeg)

## SCOPE 3

Scope 3 includes all other indirect emissions from both upstream and downstream activities of Munich Electrification. **Those emissions amount to over 99% of our total carbon footprint in 2023.** See all absolute numbers in the graph on page 19. As we do not manufacture or assemble our products in-house, i.e. also all related emissions are part of our upstream supply chain making this scope even more material.

With 55%, the emissions occurring during the use of our products constitute the biggest share of all Scope 3 emissions. This is calculated taking the entire use phase of the different products into account. This is followed by the emissions associated with the purchased goods and services with 37%, thus 3,321 tons  $CO_2e$  (more details on the next page), and the emissions associated with purchased capital goods with 7% being close to 600 tons  $CO_2e$ .

![](_page_20_Picture_3.jpeg)

### PLANET PURCHASED GOODS AND SERVICES

Around 1,600 tons of  $CO_2$ e stem from the actual products we sold throughout 2023, which is fairly accurate a 50:50 split between the battery management systems and the cell monitoring boards. This includes both series products and samples, meaning products that are still in the development stage.

The other  $1,720 \text{ tons } \text{CO}_2\text{e}$  come from all other purchases, from engineering services and tooling to legal support or office materials and food and beverages - to name just a few. The top emitting suppliers are logically our two manufacturing partners that assemble all products for us. Also two partnered testing companies rank high, so do a variety of electronic component manufacturers.

![](_page_21_Picture_4.jpeg)

## SMALLER SCOPE 3 CATEGORIES

All other Scope 3 categories play a comparably small role with a total of 132 tons  $CO_2e$ .

![](_page_22_Figure_3.jpeg)

#### Total emissions (tCO<sub>2</sub>e) breakdown by category

### PLANET BUSINESS TRAVEL

For business travels, Munich Electrification has determined some rules regarding distances and different modes of transport like ideally not taking a plane within Germany. Also, it is recommended to use company cars for distances up to 250 km and the train afterwards as long as it is reasonable.

During 2023, a total of 178,000 km have been traveled by the employees accounting for 41.7 tons  $CO_2e$ . Most, naturally, coming from long- and short-distance flights. The accommodation of employees during their business trips entailed around 2 tons  $CO_2e$ .

![](_page_23_Picture_3.jpeg)

# UP-AND DOWNSTREAM TRANSPORTATION

Downstream and upstream transportation of goods together make up  $40.2 \text{ tons CO}_2 \text{e}$ . Herein, three transport modes are contained: transport by air, by water and by road.

![](_page_24_Picture_2.jpeg)

### PLANET EMPLOYEE COMMUTING

When it comes to employee commuting, we calculated  $26 \text{ tons } \text{CO}_2\text{e}$ . The top 3 modes of transport that are being used when looking at the commuting distance in kilometers is the train followed by the underground and the bicycle (see figure on the right).

This quite low commuting footprint is fueled by the fact that ME provides the corporate benefit of a monthly train ticket and the leasing of a business bike to all employees. This category additionally includes home office emissions and emissions from work from anywhere (WFA) of 0.5 tons CO<sub>2</sub>e.

![](_page_25_Figure_4.jpeg)

#### Employee commuting distance (km) by top 10 modes

# FUEL- AND ENERGY-RELATED ACTIVITIES

The fuel- and energy-related activities are calculated automatically by Normative. It includes emissions related to the production of fuels and energy purchased and consumed by us that are not part of Scope 1 and 2. For example, it covers the Well to Tank (WTT) emissions of the transportation part or also transmission and distribution losses of the electricity grid.

![](_page_26_Picture_2.jpeg)

### CARBON MANAGEMENT HIERARCHY AND OFFSETTING

WHEN IT COMES TO OUR CARBON MANAGEMENT HIERARCHY, MITIGATION IS THE FIRST PRIORITY. THIS MEANS THAT EMISSIONS ARE TO BE AVOIDED AND REDUCED WHEREVER POSSIBLE BY TRANSITIONING TO RENEWABLE ENERGY SOURCES OR PURSUING HIGHER ENERGY EFFICIENCY FOR EXAMPLE. ONLY EMISSIONS THAT CANNOT BE PREVENTED, NEED TO BE OFFSET IN THE LONG-TERM TO REACH A STATE OF NET ZERO.

For 2023, we decided to purchase voluntary carbon credits for the amount of emissions from our Scope 1 and 2 and also the "Business Travel", "Employee Commuting" and "Waste generated in operations" categories from within Scope 3. This results in a **total compensation of 96 tons CO<sub>2</sub>e.** We decided to do so, since we already have avoidance and reduction measures for these three Scope 3 categories in place, thus we are following the "avoid-reduce-offset" principle as mentioned above.

We compensate the 96 tons  $CO_2$ e with a carbon avoidance project. It promotes **safe drinking water in schools** in Kenya by providing free access to water treatment technologies that replaces the boiling of water with biomass like coal. This results in a better children's health and in lower air pollution and emissions compared to the conventional boiling of water. The social co-benefits are of high importance to us (Gold Standard).

![](_page_27_Picture_5.jpeg)

### PLANET PRODUCT CARBON FOOTPRINT (PCF)

#### BESIDES THE CORPORATE CARBON FOOTPRINT, WE ALSO CONDUCT LIFE CYCLE ASSESSMENTS (LCA) TO EVALUATE THE IMPACTS OF OUR PRO-DUCTS ON THE ENVIRONMENT.

Emissions stemming from the manufacturing of all components plus the assembly of our products amount for our products including all upstream activities amount for a vast portion of the category "Purchased goods and services" as described on page 22.

This is why the decarbonization of our products is crucial. To measure the products' carbon footprint we use **cradle-to-gate** as our system boundary. This means that all emissions, from raw material extraction until the product is ready to be shipped to the customer, are considered. Currently, only the impact category "Global Warming Potential (GWP)" is being evaluated using the impact assessment method of "Environmental Footprint 3.1".

![](_page_28_Figure_5.jpeg)

# EXEMPLARY PCF

Every product variant is individually adjusted to our customers' specific requirements. So the hardware design as well as the software differ from customer to customer. In the following, we show exemplary PCFs for two of our main products, a BMS (see diagram on the right) and a CMB (see corresponding PCF diagram on the next page) with the highest delivery quantities in 2023.

It is clearly visible that the major contributor to the overall GWP of both products in our portfolio is the printed circuit board assembly (PCBA) with around 90%. When diving deeper into the populated PCB, we can determine the most emission-intense components to be the PCB itself with around 35% of the PCB Assembly and the Integrated Circuits (ICs) with 54% in case of the exemplary BMS or 30% in case of the CMB shown.

#### PCF of a BMS - total (kg CO,eq.)

![](_page_29_Figure_4.jpeg)

### DATA IMPROVEMENTS AND RESEARCH ON OPPORTUNITIES IN TERMS OF SUSTAINABILITY

In order to fully exploit the improvement potential with regard to the decarbonization of our products, it is essential to continuously enhance data quality for our calculations. Besides the data quality topic, we were working on comprehensively covering all emissions possible within our system boundaries.

Also, assumptions about for example transportation of components have been updated after internal discussions with respective departments. LCA results give valuable insights into where the hot spots lie, be it the component, the material, the life cycle or else. Based on that, research projects are being initiated - one in 2023 in the form of a master thesis - like already in previous years.

As the printed circuit board contributes significantly to the products' overall carbon footprint (as the figures on this and the previous page show), it is being investigated if a substrate out of bio-material can replace the conventional FR4 substrate without compromising the quality and safety of the product and what environmental impact the substrate itself has.

#### PCF of a CMB - total (kg $CO_2$ eq.)

![](_page_30_Figure_5.jpeg)

#### SUSTAINABILITY REPORT PEOPLE AT MUNICH ELECTRIFICATION

![](_page_31_Picture_1.jpeg)

### SUSTAINABILITY REPORT PEOPLE AT MUNICH ELECTRIFICATION

A holistic approach to sustainability requires to also shine a light on the talented workforce propelling the success of Munich Electrification. The staff plays a pivotal role in fostering sustainability, ethical practices and they also have an indirect societal impact.

![](_page_32_Picture_3.jpeg)

## **GROWTH OF THE WORKFORCE**

Both in terms of headcount and FTEs, our team showed significant growth during the year 2023. We **grew** the former **by 50%** to 165 and the latter by 55% to 148 - with a year average of 117 FTEs.

The total number of employees on 31.12.2023 (compared to the previous year) is split into the different contract types as follows:

![](_page_33_Figure_3.jpeg)

EoY 2022 EoY 2023

### DIVERSITY IN OVERALL WORKFORCE AND IN MANAGEMENT POSITIONS

#### WHEN IT COMES TO GENDER DIVERSITY, 67 % OF THE WORKFORCE IDENTIFY THEMSELVES AS MALE, 32 % AS FEMALE. THE REMAINING 1 % CHOSE TO NOT ENTER THIS INFORMATION.

ME has a comparably young staff with over 70% being younger than 35 years. Approximately 27% are between the age of 35 and 55 years whereas a little over one percent is 55 years and above and another one percent has not disclosed their age.

Currently, ME does not employ any person with disabilities and is not aware of any possible disabilities of employees at this time.

As visualized on page 10 in the organigram, there are only three hierarchical layers within Munich Electrification in 2023. Two of all 165 employees are executives - "Geschäftsführer" to be precise - plus one being on C-level.

Additionally, there are eight people as department leads resulting in overall 7% of all employees being in management positions (11 persons). The composition of the management team in terms of gender is divided into 91% male (10 men) and 9% female (1 woman).

**%** 

### PEOPLE AT MUNICH ELECTRIFICATION EMPLOYEE SATISFACTION

We measure our employee satisfaction through the **turnover rate which amounts to 1.7%** for all employees and respectively 0.7% for permanent employees in 2023. This is a very low rate compared to other companies in the industry which can be seen as an indicator for a high employee satisfaction.

![](_page_35_Picture_2.jpeg)

#### $\equiv$

#### PEOPLE AT MUNICH ELECTRIFICATION TRAININGS AND SKILLS DEVELOPMENT

The people development team within Munich Electrification is continuously working on improving the portfolio of available trainings for its employees internal as well as external offers.

In the course of the onboarding process of a new employee, several trainings are to be conducted, be it an introduction to our vision and values or administrative processes everyone is affected by or the contents of the Employee Code of Conduct (CoC). Mandatory recurring training sessions on occupational health and safety, compliance and cyber security take place at the beginning of each year. Further, every employee has the opportunity to take up to two non-technical training sessions per year. Topics therefore vary from Communication Basics over Productivity and Time Management to Basic Leadership Skills. In 2023, every employee took on average 17.2 hours of training.

Besides that, there are yearly performance and career development reviews whereof 84% of all permanent employees participated in. In the beginning of 2024, a dedicated career development framework is being introduced with the aim of providing each employee with a guide to where they stand, what is expected of them and how they can develop within the organization.

![](_page_36_Picture_5.jpeg)

### PEOPLE AT MUNICH ELECTRIFICATION HEALTH AND ABSENCES OF THE WORKFORCE

Occupational health and safety is of high importance to us. In 2023, three accidents were reported happening during the commute to work. These did not result in lost days. Only one month was lost due to a work accident at the end of the previous year, 2022.

96% of all employees were entitled to take family-related leave in 2023 according to their contract type. **Parental leaves were taken by 8 employees** - six males and two females - accounting for 19 months in total. Moreover, **three female employees took** around 9.5 months of **maternity leave** in 2023.

![](_page_37_Picture_3.jpeg)

## REMUNERATION AND INCENTIVE SCHEME

Ensuring a fair compensation for all employees, Munich Electrification has implemented a three steps process. During the application process when it comes to contractual topics and after 12 months again, employees' wages will be checked. This happens by reviewing the internal and external salary bands in which Munich Electrification orientates itself towards corporations being larger than ME in order to ensure a competitive payment. On same/comparable positions/levels, there is no difference made in age, gender or culture. Third step is to also streamline salary bands every year in departments, and also cross-functional, to add an additional layer in a fair compensation model.

The 9-Grid model is in use to rate employees performance and potential which is revised in a two step process by the manager and in the second step by an compensation committee (including People department and C-Level). In addition to a fair compensation process, Munich Electrification internally publishes bonus calculations, which leads to annual bonus payments among all employees. Currently, the incentive scheme for all employees including the management is not linked to any sustainability matters.

![](_page_38_Figure_3.jpeg)

## PEOPLE AT MUNICH ELECTRIFICATION **DISCRIMINATION**

As defined in the Employee Code of Conduct, "Munich Electrification expects its employees to treat their colleagues in the same nondiscriminatory fashion". In 2023, ME did not become aware of any incidents of discrimination. The introduction of our anonymous reporting portal provides a helpful tool to report on any violations in the future. More details follow under the Governance section.

![](_page_39_Picture_2.jpeg)

### **WORK-LIFE BALANCE AND CORPORATE BENEFITS**

The employees of Munich Electrification enjoy a **variety of corporate benefits.** There are regular team events, both of the department and the entire company, to keep up a great spirit and spend a good time together. An overnight event, visiting the Oktoberfest and a Christmas party were the highlights of the year.

ME provides a free and purely vegetarian lunch everyday freshly cooked by our kitchen team and there are other snacks, coffee etc. for free. Regarding mobility, the company bears the expenses of the public transport ticket and also makes the company fleet available for personal purposes. Furthermore, a business bike can be leased. There is also the possibility to choose between two sports options - a gym membership or a Wellpass membership to foster the health of the staff. To promote a good work-life balance, Munich Electrification grants four free afternoons/half-days in the summer.

Another valuable corporate benefit is that every full time employee is allowed to work from anywhere for up to six weeks per year from a destination of their choice. Also, ME provides a fully paid pension scheme for all employees, or contributes with an additional bonus if employees take care of their pension scheme on their own.

This great variety of benefits increases employee satisfaction remarkably and boosts the employer attractiveness for potential future employees.

![](_page_40_Picture_6.jpeg)

#### SUSTAINABILITY REPORT PEOPLE IN OUR VALUE CHAIN

![](_page_41_Picture_1.jpeg)

### SUSTAINABILITY REPORT PEOPLE IN OUR VALUE CHAIN

TAKING RESPONSIBILITY FOR NOT ONLY SOCIAL TOPICS WITHIN THE COMPANY'S BOUNDARIES BUT ALSO FOR ALL PEOPLE AFFECTED BY THE COMPANY'S BUSINESS ACTIVITIES IN THE UPSTREAM AND DOWNSTREAM VALUE CHAIN IS ANOTHER INTEGRAL PART OF THE ESRS FRAMEWORK. THIS IS ESPECIALLY IMPORTANT TO US SINCE THE MAJORITY OF ADDED VALUE - AND EVEN THE PRODUCT MANUFACTURING - HAPPENS OUTSIDE OF OUR DIRECT COMPANY BOUNDARIES.

Supply chains within the electronics industry are very complex, intransparent and often come along with human rights abuses and negative environmental impacts. Especially upstream of the supplier network, we see a high potential of improvement when it comes to different sustainability topics. Munich Electrification is not yet obliged to be compliant with the German Supply Chain Act, still we see a need for identifying and managing sustainability risks within our value chain.

![](_page_42_Picture_4.jpeg)

## SUPPLIER CODE OF CONDUCT

As a very first step towards the implementation of our human rights due diligence, we set up a Supplier Code of Conduct. This legally binding document follows the OECD Guidelines on Responsible Business Conduct and outlines our guidance and expectations towards suppliers and partners in relation to their business conduct.

Our Supplier Code of Conduct requires fair and respectful behaviour of employees, a strict system to minimize the risks of child labour and forced labour such as the protection of the environment and other ethical and responsible business practices. As we believe that real improvement can only be achieved in collaboration with multiple players within the supplier network, we require our suppliers to cascade down our requirements to their suppliers and partners.

#### WHAT DOES ME'S SUPPLIER CODE OF CONDUCT CONTAIN?

## SUSTAINABILITY REPORT

![](_page_44_Picture_1.jpeg)

## SUSTAINABILITY REPORT

### GOVERNANCE LAYS THE FOUNDATION FOR A COMPANY IN TERMS OF ETHICAL BUSINESS PRACTICES.

This includes internal behavior but also interaction with external stakeholders. Effective governance mechanisms not only guide the implementation of environmental and social initiatives but also contribute to long-term value creation, enhancing stakeholder trust and promoting a more sustainable and resilient business model.

![](_page_45_Picture_3.jpeg)

### GOVERNANCE CODE OF CONDUCTS

The foundational guiding principles are compiled in two documents - the internal Employee Code of Conduct and the Supplier Code of Conduct. The latter has been briefly described on page 44.

The internal CoC contains guidelines on a broad range of topics - for example non-discrimination, product integrity, conflicts of interest or data protection and confidentiality to name just a few. As part of the onboarding process for new employees, the Code of Conduct and Compliance online training is one of the courses that need to be completed within the first weeks.

![](_page_46_Figure_3.jpeg)

### GOVERNANCE GRIEVANCE MECHANISM

#### IN 2023, MUNICH ELECTRIFICATION ALSO ESTABLISHED AN ANONYMOUS REPORTING PORTAL.

This allows internal stakeholders like employees as well as external stakeholders like suppliers to report on a violation of any kind that has been noticed. This secure way of reporting is then being processed internally with the goal of clarifying and solving the issue. The portal can be accessed via this link.

![](_page_47_Picture_3.jpeg)

### GOVERNANCE SUSTAINABILITY CRITERIA IN SUPPLIER EVALUATION

As the products developed at Munich Electrification are being produced at facilities of our contract manufacturers, we are paying special attention to their sustainability performance. Therefore we carry out sustainability surveys and its data is being assessed and ranked. Environmental and social topics therefore play a role in the overall assessment alongside quality and commercials and become a selection criterion for our production partners.

A similar process is implemented in regards to the sourcing of component suppliers that manufacture ME-specific parts such as the PCB and the housing for a BMS or CMB. A sustainability questionnaire including questions regarding ESG topics is being sent to potential suppliers. Besides other criteria, sustainability plays a role in decision making for or against a supplier or partner.

![](_page_48_Picture_4.jpeg)

## SUSTAINABILITY REPORT OUTLOOK FOR 2024

![](_page_49_Picture_1.jpeg)

#### SUSTAINABILITY REPORT OUTLOOK FOR 2024

FOR 2024, CONTINUED GROWTH IS PLANNED ON SEVERAL ENDS. THE TEAM IS PROJECTED TO GROW BIGGER BY ANOTHER APPROXIMATELY 50 PEOPLE (HEADCOUNT). TO TACKLE THIS GROWTH, A NEW ORGANIZATIONAL STRUCTURE IS IMPLEMENTED IN Q1 OF 2024. ALSO, MORE OFFICE SPACE IS TO BE OPENED UP TO ACCOMMODATE THE GROWING NUMBER OF EMPLOYEES. BESIDES THIS, SEVERAL IMPORTANT SUSTAINABILITY PROJECTS ARE ALSO PLANNED, SOME HAVE BEEN STARTED ALREADY IN 2023. A FEW OF THE INITIATIVES ARE MENTIONED IN THE FOLLOWING.

One noteworthy project is the **double materiality assessment** - the methodology to prioritize all ESG topics according to its entailed impacts, risks and opportunities for Munich Electrification. This assessment is an integral part of the upcoming European Sustainability Reporting Standards (ESRS) in preparation for complying with the CSRD when becoming applicable to us. Based on the assessment's outcomes, a **sustainability strategy** with goals and concrete mitigation measures will be formulated and implemented across all departments throughout the year, first and foremost decarbonization goals.

Upcoming reporting requirements also demand new kinds of data. In order to be prepared, a **data management** project, including the identification of the data type that is required in particular and the identification of data locations and data owners, will be kicked-off in 2024. This includes data to calculate our CCF, more holistically, data for the overall ESG reporting and eventually data points according to ESRS.

In terms of people development, the already existing soft skill catalog is going to be enhanced and a **mentor programme** will be started at ME. Also as already briefly mentioned earlier in this report, a new **employee development framework** allowing for internal personal development will be presented and established.

When it comes to supply chain sustainability management, the first and major step is to understand the upstream and downstream supply chain activities and achieve a high transparency in order to perform a supply chain mapping. Closer cooperation with our suppliers, primarily with our production partners, is being pursued by engaging with suppliers via audits or workshops for example. Giving advice on their sustainability journey will be a win for both parties. As part of this, a **supply chain risk assessment** will be conducted.

### SUSTAINABILITY REPORT OUTLOOK FOR 2024

Following up on the research that has been done internally in the course of master theses on printed circuit boards, its materials and product carbon footprint, iit is planned to initiate several possible measures to reduce the products' environmental impacts.

Also, using recyclates instead of primary raw materials for example for the plastic housings for some of our customers is a topic where we further intend to elaborate on.

![](_page_51_Picture_3.jpeg)

### MUNICH ELECTRIFICATION **CONTACT**

![](_page_52_Figure_1.jpeg)