

Sustainability Report 2023





Dear Readers,

In the fiscal year 2023, technotrans was able to increase its revenue by 10.0% to €262.1 million in a challenging environment, reaching a new all-time high. technotrans demonstrated its resilience and confirmed the successful alignment of the Future Ready 2025 strategy. Sustainability is an integral part of our strategy, and here, too, we were able to achieve a new record. By consistently using self-generated and green electricity, we achieved the lowest CO₂ footprint since records began.

Employee Development

A strong and qualified workforce is the driving force behind our innovative products and services. Particularly in the dynamic market environment in which technotrans operates as a technology company, long-term success is inextricably linked to the skills and commitment of our employees. Therefore, we place great importance on the continuous training and professional development of our employees. In fiscal year 2023, we further increased investments in training from an already high level. We are convinced: Our employees are the most valuable part of our company and the key to our sustainable growth.

Sustainable Products

The requirements for our products go far beyond merely meeting technical specifications. The needs of our customers and increasingly demanding regulations reflect the growing importance of the sustainability features of our products. Through intensive research and development, we ensure our competitiveness and offer our customers products that always meet all legal requirements. However, our own commitment to the sustainability of our products goes far beyond that. By consistently expanding our product portfolio with variants equipped with natural refrigerants and high-efficiency modules, we contribute to sustainability and support our customers in achieving their sustainability goals.

Resource Protection

The quality of technotrans products is a feature particularly valued by our customers. High quality is not only evident in the high reliability of our products but also in their longevity. With their long lifespan and high recyclability, our products help minimize the use of raw materials. With the switch to recyclable packaging material at our Meinerzhagen site, we achieved further progress in reaching the goals of the Future Ready 2025 strategy.

Outlook

technotrans is strongly and securely positioned for the megatrend of decarbonization and the associated electrification, as well as the increasing importance of efficient processes. The strong growth rate of 76% in our focus market Energy Management is proof of this.

Dear readers,

technotrans is ready for the future, and with our Future Ready 2025 strategy, we continue to ensure sustainable success and profitability. We are committed to resolutely pursuing our ESG goals and further developing towards a sustainable economy.



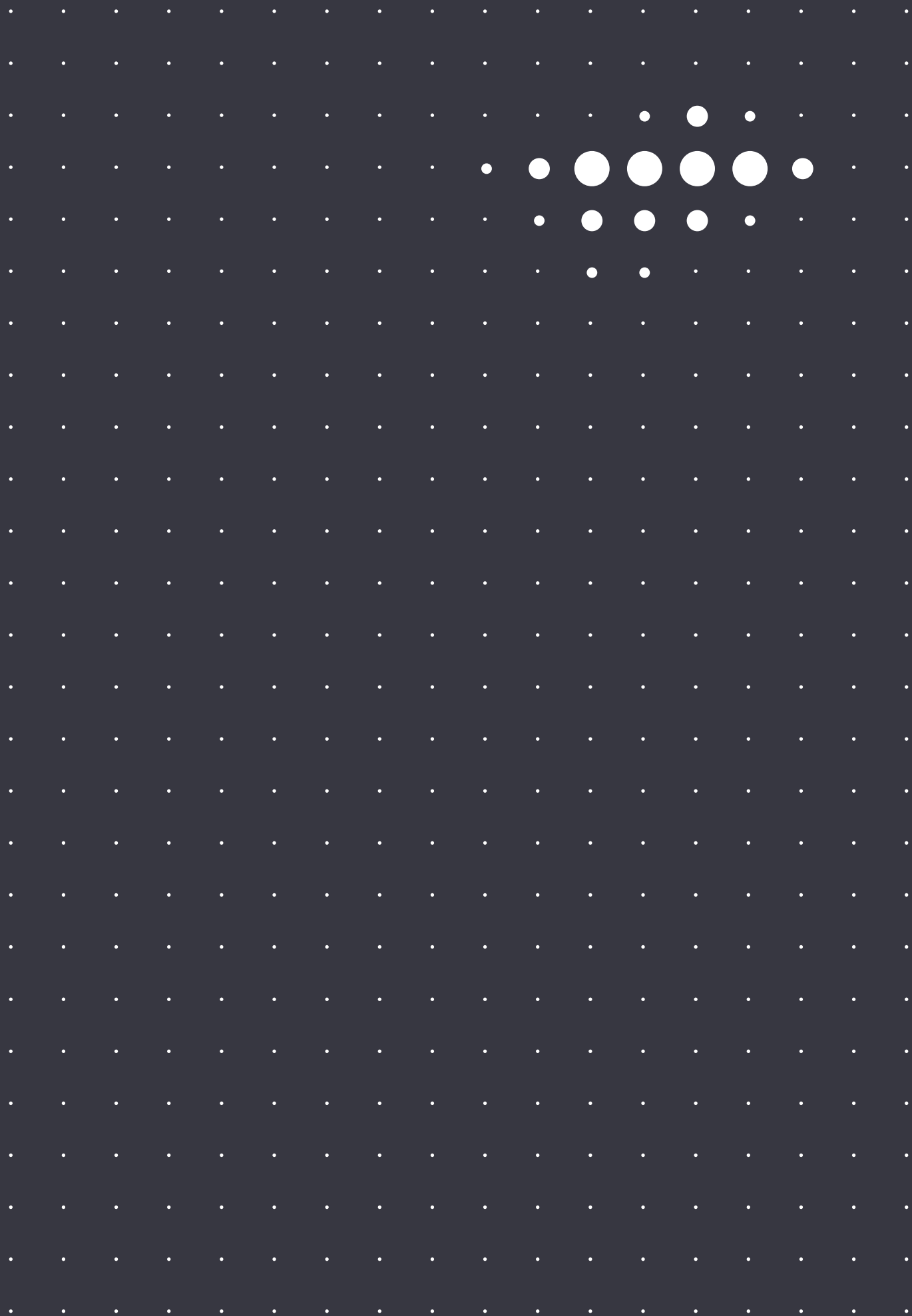
Michael Finger



Robin Schaede

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2023 financial year: Financial highlights of the technotrans Group

262.1 m €

Revenue

(PY: 238.2 m €)

Technology: 199.6 m € (PY: 180.2 m €)
Services: 62.5 m € (PY: 58.0 m €)

14.2 m €

EBIT

(PY: 14.3 m €)

Technology: 5.2 m € (PY: 7.3 m €)
Services: 9.0 m € (PY: 7.0 m €)

5.4 %

EBIT margin

(PY: 6.0 %)

Technology: 2.6 % (PY: 4.1 %)
Services: 14.4 % (PY: 12.0 %)

13.3 %

ROCE

(PY: 13.3 %)

12.8 m €

Free cash flow

(PY: -3.7 m €)

56.0 %

Equity ratio

(PY: 56.0 %)

0.62 €

Dividend proposal

(PY: 0.64 €)

1.24 €

Earnings per share

(PY: 1.29 €)

1,598

Employees

as of Dec 31, 2023

(PY: 1,500)

BUSINESS MODEL AND REPORTING

The technotrans Group is a technology and services group with worldwide operations, with its head office in Sassenberg. The company's core skill involves application-specific solutions for thermal management. The Group parent is technotrans SE. A detailed description of the business model can be found in the Combined Management Report in the section "Basic profile of the Group".

We used recognised frameworks such as the German Sustainability Code (GSC) and the guidelines of the United Nations Global Compact (UDGC), as well as the EFFAS (European Federation of Financial Analyst Societies) performance indicators, as our basis in preparing the Non-Financial Statement. Additionally, technotrans reports in accordance with the requirements of the EU Taxonomy Regulation.

SUSTAINABILITY MANAGEMENT

technotrans is exposed to a constantly changing environment. That also includes sustainable corporate governance requirements in respect of our stakeholders. We safeguard our long-term successful business development by maintaining a transparent and constructive dialogue and by approaching opportunities and risks responsibly.

At Board of Management level, CEO Michael Finger holds responsibility for the sustainable corporate governance portfolio. It is handled operationally by the Sustainability Management area.

An effective compliance and Risk Management System as well as an effective Internal Control System (ICS) assure the long-term viability and competitiveness of the technotrans Group by satisfying the legal requirements and contributing towards the attainment of achieve strategic targets.

All entrepreneurial decisions throughout the Group conform to the applicable laws as well as internal rules and voluntary commitments. We are a member of Blue Competence, the sustainability initiative of the German Engineering Federation. We mention especially our membership of the UN Global Compact (UNGC). This core worldwide initiative for sustainable corporate governance revolves around ten principles covering human rights, labour standards, environmental protection and anti-corruption. To embed this bigger perspective in the corporate culture at technotrans, the principles have been incorporated into the technotrans Code of Conduct, which is binding for all employees throughout the Group and serves as a corporate compliance guideline. As such, it constitutes a meaningful tool for implementing the sustainability strategy. In addition to setting fundamental standards for cooperation within the company, it defines how to behave towards external stakeholders. It also contains important regulations on issues such as occupational safety, data protection and IT security. All new employees receive a written copy of the code. Awareness of sustainability aspects is also raised through individual target agreements. Updates to the Code of Conduct and other compliance provisions are communicated via the e-learning platform "technotrans Campus" that has been rolled out Group-wide. The current version of the technotrans Code of Conduct can be accessed on our website.

An effective compliance management system according to DIN ISO 19600 has moreover been implemented; the Board of Management bears overall responsibility for it. It is an effective means of assuring Group-wide compliance with statutory requirements and voluntarily adopted principles. The managing directors/general managers of the national and international Group companies are likewise obliged to uphold it and are supported in this by local compliance officers. The latter coordinate,

train and monitor application of the compliance regulations and arrange updates as necessary, for example by revising organisational guidelines.

The whistleblower system is an important element of the compliance management system. It serves to identify and rectify breaches of applicable law and internal corporate guidelines. It also guarantees protection for the whistleblower against civil-law, criminal-law and internal consequences or reprisals. Within their respective responsibilities for compliance and supervision, the Board of Management and Supervisory Board are informed regularly of current compliance topics through an annual compliance report, as well as directly if necessary. Regular checks are also conducted proactively.

A further important component is the Group-wide Risk Management System based on DIN ISO 31000. This helps technotrans to identify and respond early on to potential opportunities and risks in respect of sustainability aspects, for example. It involves regular, prompt reporting to the Board of Management, among other things. For further information, please refer to the section "Risk Management and Internal Control System" in the Combined Management Report of this Annual Report.

The German Supply Chain Act (LkSG) took effect on January 1, 2023. It requires sustainable and responsible entrepreneurial behaviour along the global value chain. Enterprises are expected to identify potentially negative effects of their activity on human rights and the environment, and if necessary prevent, remedy or mitigate the consequences of such effects. The obligations include for example guarding against child and forced labour and discrimination, protecting against land grabs, upholding labour and health protection, the right to fair pay and to create trade unions, and protecting against environmental breaches. In order to promote the above human rights and environmental protection, the enterprises in question are obliged to meet defined due diligence obligations. These cover their own area of business, the actions of direct contractual partners in the supply chain and also indirect suppliers if any breaches involving them come to light. Enterprises thus bear responsibility along the entire supply chain.

technotrans has already been indirectly affected by LkSG since the 2023 financial year via a number of customers because the provisions of LkSG already applied from the time it came into force for larger enterprises with over 3,000 employees. From January 1, 2024 it also applies directly to enterprises with over 1,000 employees and therefore to technotrans. In order to handle the complexity of global supply chains and suitably implement LkSG and the due diligence obligations that follow on from it, our Group subsidiary gds has developed a software solution that enables technotrans to monitor supply chains effectively in terms of LkSG compliance.

STAKEHOLDER DIALOGUE

We regard the requirements of our stakeholders as highly relevant. We identify the needs of key stakeholders through regular dialogue. We use a variety of information sources and dialogue formats to that end, differentiating between internal communications. The latter comprise communications with customers, press relations (PR) and investor relations (IR) activities.

The technotrans website serves as a key information medium for highlighting sustainability as an area in its own right. Internal communications take the form of interviews, intranet, e-mails, discussions and physical and virtual meetings. Employees receive regular updates across all locations, and where necessary are given training and encouragement to share their suggestions and ideas. In its dialogue with customers, technotrans emphasises its added value as an expert system partner for sustainable

production processes. Initial contact with counterparts is often made at trade shows or in one-to-one talks.

The Investor Relations area is available to facilitate open-handed communications with private and institutional shareholders, investors and analysts. It can call upon Sustainability Management for specialist support as necessary. The dialogue is conducted in bilateral talks and at conferences and road-shows. technotrans pursues a transparent and open information policy with all stakeholders. The findings from these dialogues shape our business activities, the development of new products and services and our sustainability management work.

MATERIALITY

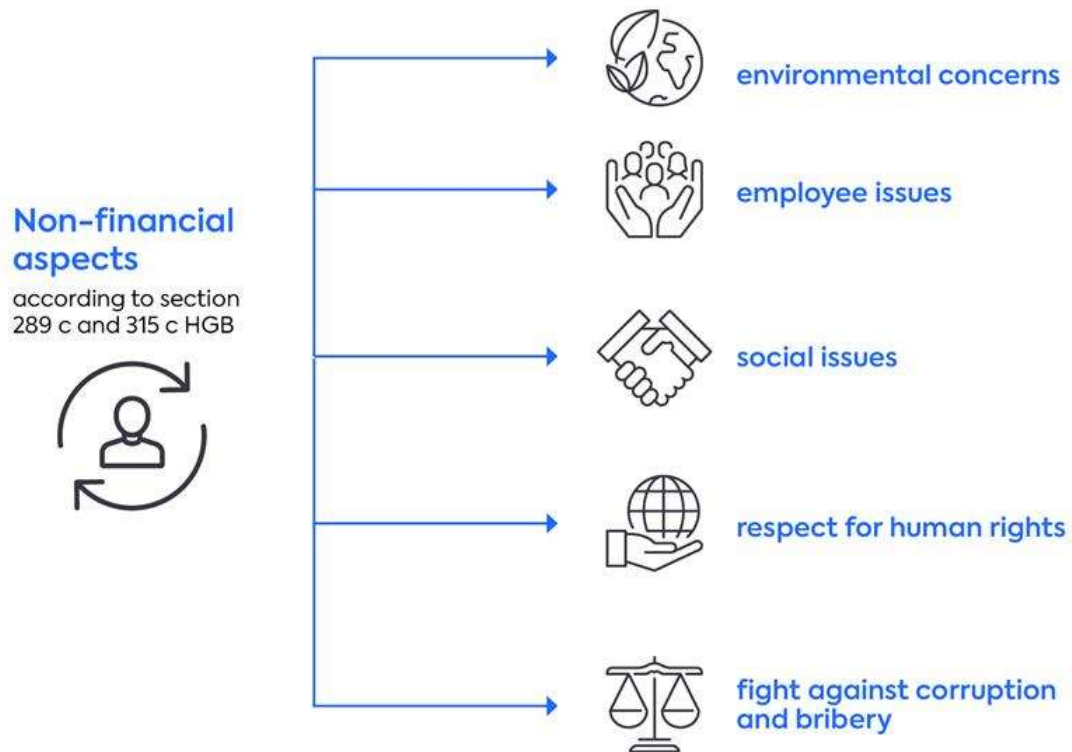
Relevant sustainability topics for the technotrans Group involve on the one hand those that are crucial to business, and on the other hand those where technotrans can contribute to sustainable development. Activities that have a major impact on the use of resources, the environment and the climate are also relevant. Social aspects such as treatment of employees, regard for human rights and anti-corruption measures are also key aspects of how we do things.

In the following, we present the key non-financial aspects for the technotrans Group that we have also identified from communications with our stakeholders.

Quantitative reporting uses for example the EFFAS performance indicators selected by the GSC, of which we report on 11 out of 16 on the basis of materiality. These indicators are supplemented by internal key figures that are rated as significant for the technotrans Group based on the materiality analysis. They include the strategic sustainability goals as well as the reporting obligations under the EU Taxonomy Regulation. The scope of the key figures is regularly reviewed and gradually broadened. The development of the key figures over time forms the basis for targeted adjustments. A summary table can be found at the end of this report section.

Based on the principle of materiality, we report selected key figures such as energy consumption only for the domestic production locations and for the Taicang (CN) and Mt Prospect (USA) locations.

NON-FINANCIAL ASPECTS



a) Environmental matters

Protecting the environment and climate is an ambitious but important challenge. In developing innovative solutions for its customers, technotrans makes a significant contribution to protecting precious resources throughout the entire product life-cycle. Sustainable environmental, energy and resource management is especially important at the production locations.

Alongside technotrans' own efforts, regulations are creating increasingly tough sustainability requirements for products and their production process. They include the Ecodesign Directive and the F-Gas Regulation. technotrans always assures conformity at an early point in the process and sets itself the goal of reducing the environmental impact of its own activities and products beyond what is required by law.

This drive inspired the xtend product line in the ECOtec.chiller equipment family, for example, which systematically features power-regulated compressors, fans and pumps. This product line came as a timely response to growing demands for energy and therefore cost efficiency. It has been enthusiastically received by customers. In the ECOtec.chiller product family, almost two-thirds of equipment sold is a high-efficiency xtend version.

Resource-light product development

Developing efficient systems and technical processes is one of technotrans' core skills. This expertise is secured and steadily increased through partnerships with universities and research establishments. As a development partner, technotrans uses its innovative capability to find just the right solution in close collaboration with customers. Its aim is always to come up with products and processes that bring added value for technotrans' customers thanks to their resource-saving, environment-friendly

features. The product development process is standardised and is controlled by means of defined stages, or quality gates. Especially for custom product solutions, it delivers the high quality standards, the cost and time savings for which technotrans is noted.

Resource-saving products

technotrans Group solutions not only provide value added in the form of high quality and performance; they also bring environmental benefits. Examples include our innovations for electric mobility, the ongoing expansion of our ultra-energy-efficient product range and successive additions to the range of solutions that use natural refrigerants.

Electric mobility – Electrification is the key to decarbonising the overwhelming part of the mobility sector. This is both a challenge and a huge opportunity. technotrans draws on its expertise in thermal management solutions in selectively and steadily expanding its product portfolio. Needs-based thermal management is indispensable for electrification applications in the mobility sector. For example, technotrans supplies temperature control for battery systems for road and rail vehicles and for high-power charging (HPC) stations and HPC parks. Wherever out-and-out electrification is stretched to the limit, hydrogen-based drive concepts represent an alternative. technotrans is developing thermal management solutions for this area too.

The 2023 financial year saw technotrans make its debut at the EV Trend Korea industry exhibition in Seoul, its first show appearance in the South Korean market. It presented solutions for e-mobility thermal management such as cooling modules for HPC charging stations and 850 Volt DC coolers. It also showcased cooling modules for megawatt charging systems (MCS). Compared to HPC, MCS have many times the charging capacity and represent the future standard for applications with high charging power, e.g. for buses, trucks and off-road vehicles.

In the electric mobility area of the growing Energy Management focus market, technotrans also secured two major contracts in the 2023 financial year. A leading German technology group placed an order for type e.cool charging-cable coolers that are used in rapid-charging parks in the United States and Europe and are the key to HPC over long periods almost without efficiency losses.

The second major contract was awarded by ADS-TEC Energy. For that contract, technotrans developed a custom cooling solution for battery-storage quick-charging stations. These permit high-power charging even if no high-voltage network is available – for instance at filling stations and shopping malls or in company car parks. One of the main development challenges was to combine an ultra-compact design with a high cooling performance because the footprint is less than two square metres.

Environmentally friendly refrigerants – Refrigerants are indispensable in active cooling systems. Conventional refrigerants often have the downside of high global warming potential (GWP). Most cooling circuits in technotrans equipment are hermetically sealed. However if cooling systems sustain damage, refrigerant could potentially leak out. technotrans is therefore methodically conducting projects to enable it to offer natural refrigerants with low GWP in its products as alternatives to conventional refrigerants. We are thus demonstrating our environmental responsibility and pre-empting restrictions such as the F-Gas Regulation.

By the end of 2024 we aim to achieve an average GWP of 651 for the refrigerants technotrans uses. In the year under review, the PRO300 product line with a cooling performance of up to 4,200 watts for

use in extra-compact analytics and medical technology applications was unveiled, with the natural refrigerant propane (R290) and a GWP of 3. Another new chiller product line that is available with the natural refrigerant R290 generated plenty of interest at the Fakuma industry exhibition. We presented a chilled water unit with a cooling performance of 100 to 1,500 kW, also available with energy efficiency module.

Depending on product mix, technotrans reported a slight rise of 6.5 % in the average GWP in 2023 compared with the previous year, to 1,065 (2022: 1,000). With the addition of natural refrigerants to the product range, this figure will come down more sharply in the future. In smaller performance categories, we already offer product solutions that actually run entirely without refrigerant and therefore no longer feature in the average GWP calculation. Reducing the absolute quantity of refrigerant used by adopting volume-efficient components is another measure that helps to minimise potential global warming effects.

Efficient heat and refrigeration technology – As well as presenting the energy-efficient temperature control product line eco.line at KUTENO 2023, technotrans highlighted especially its expertise in energy-efficient commercial and industrial heat pumps and refrigeration plants, which can also be designed to run on the natural refrigerant R290 in all performance categories and across wide temperature ranges. So that refrigeration plant runs even more cost-effectively and is even more environment-friendly, a winter relief feature and integral heat recovery are also possible. Conversely, on heat pumps the cooled heat source can be used to support cooling applications in order to boost energy efficiency. The performance range available also includes high-temperature heat pumps achieving up to 165 °C as a means of raising residual heat to a process-ready temperature.

Resource-light production

In terms of its own production operations, technotrans constantly seeks to use finite resources as efficiently as possible. Its declared aim is to reduce consumption of materials, water and energy. The employees are trained to treat resources with care and also encouraged to contribute their own ideas on how to do so. Environmentally harmful substances in production or in products are only used if they cannot be avoided; this also improves safety for all employees and customers. Such substances already in use are regularly examined and substituted where possible.

technotrans observes and complies with all applicable statutory requirements as a matter of course. New requirements and changes are therefore promptly incorporated into work instructions. The technotrans Group in the first instance manufactures equipment that conforms to the REACH regulation, the RoHS II Directive and CE identification requirements. Implementing special customer requirements in some cases calls for conformity with the RoHS II Directive including for products that are not actually covered by the statutory requirements. Suppliers, too, therefore need to give an undertaking not to use any environmentally hazardous substances as defined by the REACH regulation. technotrans furthermore expects them to comply strictly with the RoHS II Directive. The REACH and RoHS II conformity of input materials is captured in ERP systems. Compliance with the requirements and therefore EC conformity is documented using the bill of materials for an end product.

In the 2023 financial year we rolled out use of the “digital only” concept beyond the main Sassenberg location and across all production locations; it means we now supply our customers with purely digital technical documentation via the easybrowse platform created by the Group subsidiary gds GmbH. By using the platform, we can limit paper documentation to the minimum level of information required by law. The saving in the number of A4 sheets printed double-sided was increased from 1.3

million in 2022 to a total of more than 3 million in 2023. Digital documentation also enabled us to cut spending on binders, folders and printed matter and ensure that customers always have access to the latest version of documentation.

Other significant environmental aspects include the reduction of waste, recycling reusable materials and minimising water consumption. A total of 1023 t of waste and recyclable material was generated at our production locations in 2023, of which some 74 % (756.6 t) could be recovered and used for high-grade recycling. The overall amount of waste and recyclable material rose by 5 % (2022: 973.4 t). In revenue terms, a reduction of 4 % to 17 MWh per €m was achieved (2022: 18 MWh per €m).

Water consumption at our production locations increased by 14 % or 1,119 m³ in the 2023 financial year, and therefore amounted to 8,916 m³ (2022: 7,797 m³). Expressed as a ratio of consolidated revenue, fresh water consumption rose slightly to 34.0 m³ per €m (2022: 32.7 m³ per €m). This increase was prompted by retroactive capture of water consumption due to weighting performed by the water supplier in the previous year. One location for which elevated water consumption was recorded was extensively fitted out with drinking water dispensers for employees. Another major factor was the occupation of the new production location in Steinhagen. Despite the rise, technotrans' water consumption can nevertheless be considered to be very low overall. For technical purposes, water is required at test benches but this water is systematically recirculated, treated and reused. The greater part of the drinking water is consumed by employees and technotrans' consumption of water is comparable to that of office buildings housing a similar number of employees.

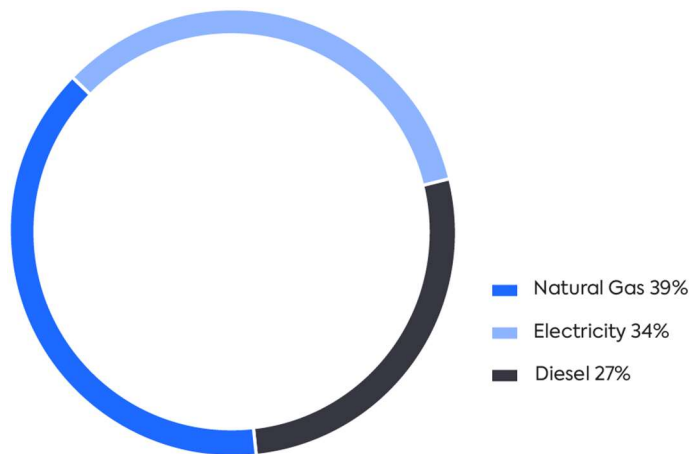
Energy consumption

The efficient use of energy and the eco-friendly handling of resources are high priorities for us. We are therefore always looking for scope to improve the energy efficiency of our operating processes and products, and conduct the statutorily required energy audits according to DIN EN 16247-1 on a four-year cycle. Some examples of how we cut our energy consumption in the 2023 financial year are the installation of a photovoltaic (PV) system at our location in Brazil. This PV system covers the branch's entire electricity requirements. We have also applied for a grant towards switching the lighting at Sassenberg to LEDs. The work will be carried out in the 2024 financial year. In the production halls at Meinerzhagen, the last bright radiators have now been replaced with dark versions. Although they still run on natural gas, they are now much more efficient. This change equally helps to cut our consumption of fossil fuels and therefore reduce carbon emissions.

In accordance with the materiality principle, the following data refers to the eight production locations of the technotrans Group and the energy sources power, natural gas and fuels, plus green hydrogen at the Holzwickede location.

Total energy consumption of 15.1 GWh in the 2023 financial year was lower than in the previous year (2022: 15.2 GWh). In terms of revenue performance, consumption fell to 58 MWh per €m (2022: 64 MWh per €m). The energy mix remained almost identical compared to previous years. Due to its low share of 0.3 %, hydrogen is not included in the following diagram.

Aggregate energy mix across the locations



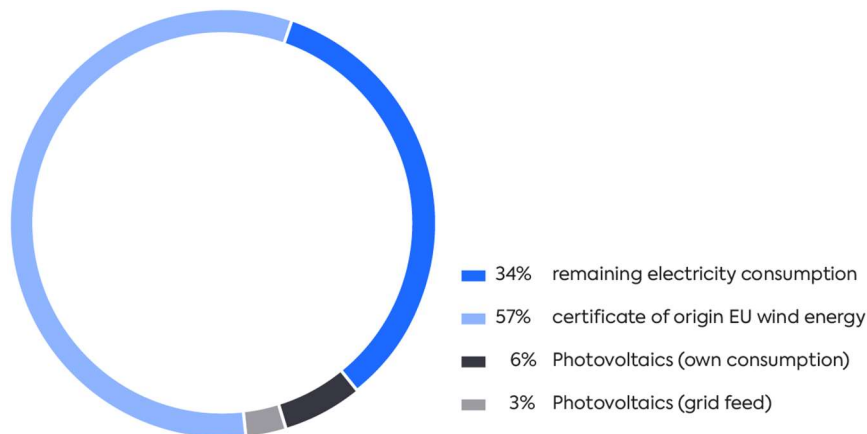
technotrans believes it is important to handle resources responsibly; that includes both the raw materials for products but especially the use of energy. The Future Ready 2025 Group strategy therefore includes the following defined sustainability goals:

- Electricity: increasing the share from renewable resources to 100 % by 2030.
- Fuel: cutting fuel consumption by an average of 5 % annually.

Power consumption – in 2023 technotrans succeeded in reducing its power consumption slightly to 5.09 GWh (2022: 5.12 GWh). In revenue terms, it achieved a sizeable reduction of 10 % to 19 MWh per €m (2022: 22 MWh per €m). As a means of incentivising the expansion of renewable energy even before EEG electricity is taken into account, we seek to meet this consumption entirely from renewables; in keeping with our sustainability goal we therefore use both self-generated power at our locations and purchase certificates of origin from European wind and PV farms, paying an additional levy to promote environmental protection and nature conservation projects.

The PV system at the technotrans systems location in Baden-Baden was commissioned in the second half of 2022 and was operational for a full year in the past financial year. As a result, the amount of self-generated solar power increased year on year by 123 %, with the result that just under 6 % of total power consumption across all production locations was covered from self-generation. If power fed into the grid is also taken into consideration, the figure is actually 9 %. These levels are set to rise steadily over the coming years with the installation of PV systems at other locations and improved energy efficiency. In terms of our goal, we achieved a share of around 66 % for 2023 based on the definition stated, representing a year-on-year rise of 22 percentage points.

Status of ESG target: 100 % renewable power



Power consumption – A further goal of the Future Ready 2025 strategy was to reduce fuel consumption by an average of 5 % per year, amounting to a target reduction of 25 % by the end of 2025. Specific fuel consumption measured against revenue was reduced to 15.5 MWh per €m, down 6.9 % on the previous year. Compared to the reference year 2019 with a specific fuel consumption of 20.0 MWh per €m, the reduction amounts to 22.5 %. To cut fuel consumption, technotrans has adopted measures such as increasingly hybrid working hours models, increased use of digital communication platforms, remote service solutions and field service management software in the service area to optimise itineraries. Since the target was defined, technotrans has therefore succeeded in decoupling revenue growth from fuel consumption and has achieved significant improvements. According to the target set in the 2021 reporting year, the vehicle fleet was to be electrified as far as technically possible and economically justifiable. The first electric vehicles are already in use at technotrans. However the global economy experienced shortages of materials and supply difficulties in 2022; these impacted the availability of electrified vehicles and their effect was still being felt in 2023. As a result of the continuing high demand coupled with a limited supply of electric cars, the current assessment is that the further electrification of the vehicle fleet is not economically justifiable. This development makes it necessary to acquire vehicles run on fossil fuels; the associated contracts therefore create lock-in effects for the medium term. From the 2023 reporting year, technotrans sets itself the goal of realising further efficiency improvements and generating added value by further reducing its fuel-based energy consumption as a proportion of revenue. technotrans will painstakingly monitor developments in the field of electric mobility and continuously assess its economic viability. The installation of a charging infrastructure was kicked off in the year under review of 2023 and its commissioning is scheduled for 2024. This will provide the framework for the continuing electrification of the vehicle fleet and allow it to be implemented swiftly once it is economically justifiable.

Gas consumption – Natural gas is the third major fuel source at the locations and therefore among the drivers of CO₂e emissions, which is why technotrans aims to successively scale back use of this fossil fuel. Year on year, consumption at our eight production locations fell to 6.0 GWh (2022: 6.1 GWh). Measured against revenue, this represents a notable reduction of 11 % to 23 MWh per €m (2022: 26 MWh per €m). The factors behind the reduction in the fossil fuel natural gas included the completion of conversion work on the heating system in the production halls at our Meinerzhagen location and the inclusion of green hydrogen in the energy mix at our Holzwickede location for a first full year in

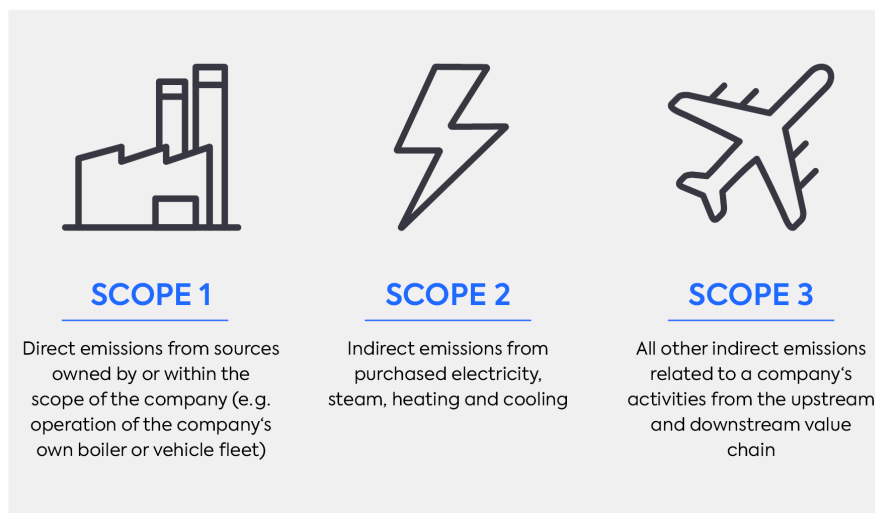
2023; the project only started in October 2022 and therefore affected energy consumption for only part of that year.

For the future, we would like to scale back natural gas consumption further by for example using a substitute fuel, modernising the heat generation and distribution system, and reducing thermal losses at the locations.

Greenhouse gas performance of the technotrans Group

Climate neutrality – technotrans supports the Paris Climate Agreement signed in 2015 with the aim of limiting global warming to no more than 1.5 °C. To complement the goals from the Future Ready 2025 strategy and based on the corporate carbon footprint, a roadmap was drawn up in 2022 to map out how to achieve climate neutrality at the eight production locations and in the sales and service units (SSU) by 2030. The primary ways of achieving this goal are by improving energy efficiency and generating renewable energy at the locations. In line with its goal from the Future Ready 2025 strategy to use 100 % renewable power at the production locations, technotrans also plans to buy in renewable power as necessary. It will then use certified climate protection projects only to compensate for the remaining CO₂e emissions from 2030 on. This is how we are translating our responsibility to limit climate change into action.

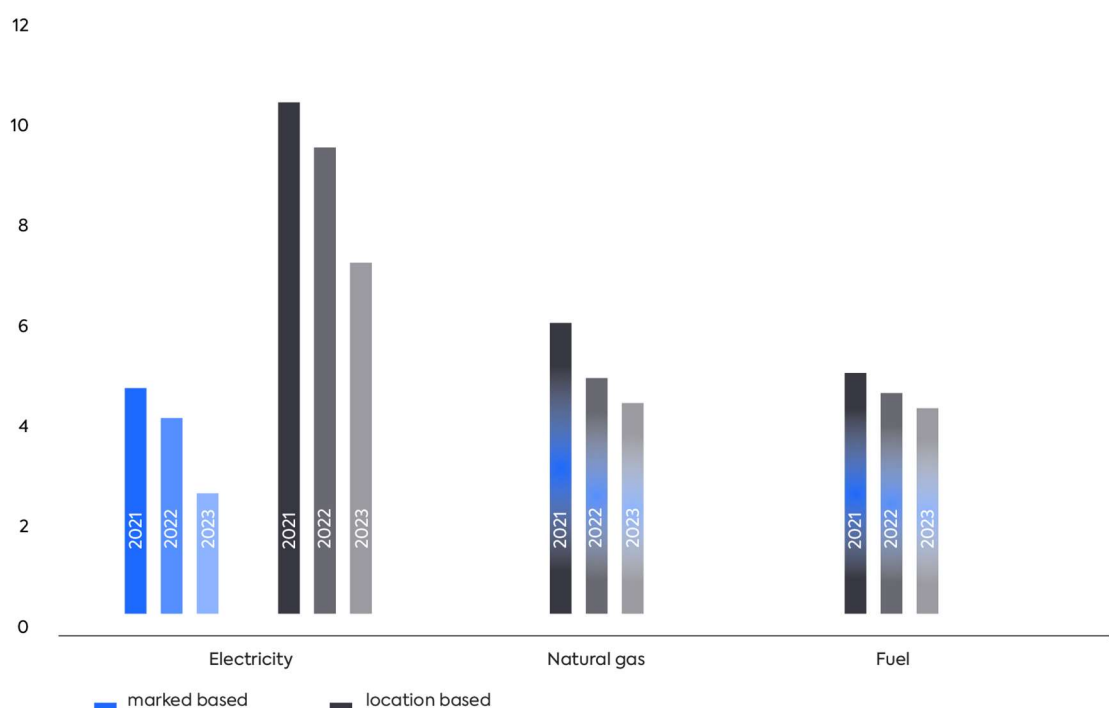
Greenhouse gas performance – One key matter that goes hand in hand with the use of fossil fuels is CO₂e emissions. To be transparent and highlight progress for instance through the use of renewables, we have been reporting our Scope 1 and Scope 2 emissions based on the Greenhouse Gas Protocol (GHG) since the 2021 financial year. The underlying reporting approach serves as our basis for clearly defined measures that will improve our performance.



In view of the lesser relevance of the sales and service units for CO₂e emissions (< 7 % in 2022), as is the case for energy consumption the following results refer to the eight production locations of the technotrans Group.

In 2023 the market-based¹ CO₂e emissions caused by technotrans in Scopes 1 and 2 came to 2,816 t CO₂e (2022: 3,097 t CO₂e), which relative to revenue is a reduction of 17 % to 10.7 t CO₂e per €m (2022: 13.0 t CO₂e per €m). Scope 1 emissions account for 77 % (2,174 t CO₂e) of market-based CO₂e emissions, and Scope 2 emissions for the remaining 23 % (642 t CO₂e). Disregarding the renewable power purchased by technotrans (location-based view), the absolute emissions declined to 4,021 t CO₂e (2022: 4,379 t CO₂e) because according to initial estimates Germany's electricity mix in 2023 was much less CO₂-intensive than in 2022. Specific CO₂e emissions per €m of revenue equally fell by 17 % to 15.3 t (2022: 18.4 t)². In the location-based view, the Scope 1 emissions are responsible for 54.1 % (2,174 t CO₂e) of total emissions and the Scope 2 emissions for 45.9 % (1,847 t CO₂e). The following summary shows the weighting and development of emission sources.

Market and location-based CO₂e emissions in t per €m of consolidated revenue



In the 2023 financial year, technotrans initially internally broadened the scope of reporting to include Scope 3. The project revealed potential for improvement especially in the quality of the data. This potential is to be realised in the 2024 financial year in order to create a suitable data basis for reporting Scope 3 emissions in the coming year.

¹ Market-based: emissions that include individual supply contracts and certificates of origin for power; location-based: emissions based on the electricity mix in Germany (electricity mix in Germany according to Agora Energiewende (2024): Energiewende in Deutschland: Stand der Dinge 2023. Rückblick auf die wesentlichen Entwicklungen sowie Ausblick auf 2024. [Energy transition in Germany: 2023 snapshot. Review of key developments and outlook for 2024.] P. 41)

² Emission factor for the aggregate electricity mix for all technotrans production locations: 126 g/kWh (market-based), 363 g/kWh (location-based)

EU Taxonomy Regulation 2020/852

The goal of the EU Taxonomy Regulation is to classify economic activities consistently across the EU in terms of how they contribute to six defined environmental objectives, based on defined requirements. These environmental objectives are: (1) climate change mitigation, (2) climate change adaptation, (3) sustainable use and protection of water and marine resources, (4) transition to a circular economy, waste avoidance and recycling, (5) pollution prevention and control, and (6) protection of ecosystems. Economic activities are taxonomy-eligible if they make a substantial contribution to attainment of one or more of the six environmental objectives. Over and above the requirements of taxonomy eligibility, economic activities are taxonomy-conforming if they satisfy certain screening criteria. They must then not impede other environmental objectives. Moreover, minimum safeguards must be met. Reportable economic activities comprise revenue, operational expenditures (OpEx) and capital expenditures (CapEx), which are assigned to the above criteria.

Whereas it was merely necessary to report on environmental objectives 1 and 2 in the previous two years, this year reporting also had to cover taxonomy eligibility in respect of the remaining four environmental objectives. The economic activities that contribute towards these four environmental objectives according to the classification of the EU Commission as well as the corresponding technical screening criteria were published in the Annexes to Delegated Regulation (EU) 2023/2486 dated June 27, 2023.

Approach to the determination of key performance indicators

The basis for the reporting below is a reconciliation of the economic activities described in the EU Taxonomy with those of the technotrans Group. This serves as the starting point for discussions with the experts from each area in order to identify those activities for which the technical screening criteria are or may be fulfilled. The experts' assessments were captured accordingly. This mapping and the expert interviews refer to revenue, CapEx and OpEx.

The purpose of many of the products made by the technotrans Group is to reduce energy consumption and therefore also carbon emissions, as well as to enable applications in the area of electric mobility. In the drafting of the EU Taxonomy, mechanical and plant engineering (MPE) was not treated as a separate branch of industry. Some of the products of technotrans can be directly allocated above all to category 3.6 (Manufacture of other low-carbon technologies) of environmental objective 1 from Annex 1 of EU IR 2021/2139. The allocated products are high-efficiency versions that enable energy and emission savings compared with their standard version.

To identify the potentially taxonomy-conforming products that come under category 3.6, the portfolio was filtered for those solutions that demonstrably produce material efficiency gains and reduce carbon emissions compared with standard systems.

As the technical criteria for economic activity 3.6 from Annex I of Regulation (EU) 2021/2139 require interpretation for them to be usable, ambiguities were addressed according to the following definitions:

- technotrans supplies its customers with individual product solutions. The comparison with the best alternative on the market required by the taxonomy is therefore not achievable. To enable it nevertheless, in each case we compare our standard product versions with our high-efficiency product versions for the same applications.

- The taxonomy requires a material saving in carbon emissions compared with the benchmark but does not define that term more closely. For this purpose it was decided that this saving must be at least 20 % in a comparison of product versions.
- According to the taxonomy, screening must involve a life cycle assessment. Because the standard version and the corresponding high-efficiency version with which it is being compared are extensively identical in design and differ by merely a few components, the comparison of carbon emissions is based only on the components that differ and on the emissions that occur in use from the product versions' difference in energy consumption.

In addition to revenue from products that meet the requirements of category 3.6 in their own right, technotrans can also show relevant revenue in the area of what are referred to as “enabling activities” under Article 10 paragraph 1 letter i of the Taxonomy Regulation. Such an enabling activity exists if a technotrans product is used in a larger product system that can in turn itself be allocated to a taxonomy-eligible economic activity. That is the case for various products in the Energy Management area, for example (see section “Resource-saving products”).

Revenue was already generated from enabling activities in that area in the 2022 financial year. However due to regulatory ambiguity it was not included under taxonomy-eligible or taxonomy-conforming revenue in the reporting for that year. Now that the EU Commission has addressed and resolved this ambiguity in EU IR 2023/2485 dated June 27, 2023, the applicable revenue is included in the reporting for the 2023 financial year.

Revenue of technotrans that can be classified as enabling taxonomy-eligible or taxonomy-conforming because it is enabling technology can be allocated to the categories 3.18 (Manufacture of automotive and mobility components), 3.19 (Manufacture of rail rolling stock constituents), 3.20 (Manufacture of high, medium and low voltage electrical equipment for electrical transmission and distribution) and 6.14 (Infrastructure for rail transport). To that end revenue from suitable products is broken down and allocated to the relevant category based on target application.

EU IR 2023/2486 dated June 27, 2023, the annexes of which contain the technical screening criteria for environmental objectives 3 to 6, in addition identifies two further economic activities with regard to environmental goal 4 on which technotrans can report taxonomy-eligible revenue for the 2023 financial year. They relate to the categories 5.1 (Repair, refurbishment and remanufacturing) and 5.4 (Sale of second-hand goods) from Annex II of IR 2023/2486.

An examination of taxonomy conformity was mandatory merely for environmental goals 1 and 2 in the 2023 reporting year. This extends beyond taxonomy eligibility and involves meeting further test criteria: technical screening criteria to demonstrate a substantial contribution to the environmental goal in question, DNSH criteria and the criteria for minimum safeguards. With regard to the analysis of the DNSH criteria that follow on from the “substantial contribution” step, it is principally a matter of compliance with statutory requirements at product and location level. While the examination of the DNSH criteria for the environment 2, 3, 5 and 6 is carried out at location level, environmental goal 4 is considered at product level.

For the minimum safeguards criteria, conformity was examined at Group level. Existing compliance management structures within the Group are used to examine and assure compliance, such as the whistleblower system, the binding Suppliers Code, the Code of Conduct for our employees, minimum standards in employment, risk management and supplier audits.

During the internally conducted analysis, contributions to environmental objective 1 “climate protection” and environmental objective 4 “transition to a circular economy” were identified.

Taxonomy-eligible and taxonomy-conforming economic activities

Revenue – The basis is revenue (€m 262.1), as presented in the technotrans Consolidated Financial Statements principally under V. Notes to the Segment Report. It is possible to allocate taxonomy-eligible and taxonomy-conforming revenue to several economic activities.

technotrans makes a significant contribution through the “manufacture of other low-carbon technologies” (economic activity 3.6 pursuant to Annex I of EU IR 2021/2139) with the high-efficiency versions of products that lead to considerable energy savings in operation through the systematic use of performance-controlled components and additionally through the integration of free cooling to support compression cooling in central refrigeration systems. For some efficient product versions, compliance with the criteria as set out in the above interpretations of the technical screening criteria could not be clearly ascertained and for that reason they are identified as merely taxonomy-eligible.

For the economic activities 3.18 (Manufacture of automotive and mobility components), 3.19 (Manufacture of rail rolling stock constituents), 3.20 (Manufacture of high, medium and low voltage electrical equipment for electrical transmission and distribution) and 6.14 (Infrastructure for rail transport) pursuant to Annex I of EU IR 2021/2139 and IR 2023/2485, technotrans makes a significant contribution with enabling technologies in the form of heat management systems.

Through activities in the service area, technotrans contributes to the transition to a circular economy. These activities include repair services and the sale of remanufactured spare parts. The revenues from these activities are taxonomy-eligible pursuant to categories 5.1 (Repair, refurbishment and remanufacturing) and 5.4 (Sale of second-hand goods) from Annex II of EU IR 2023/2486.

Operational expenditures (OpEx) – OpEx within the meaning of the EU Taxonomy (€ 7.7 million) covers expenditure captured in the Consolidated Income Statement that cannot be capitalised, or spending on research and development, building renovation measures, short-term leases, maintenance and repair as well as all other direct expenditure from the repair of property, plant and equipment to keep the taxonomy-eligible assets operational. No direct reference to the income statement is possible. This primarily covers research and development expenditure for currently or foreseeably taxonomy-conforming products (9.1 “Close to market research, development and innovation”). The goals of the research and development projects included were to increase the energy efficiency or the use of low-GWP or natural refrigerants or avoid refrigerants in order to reduce CO₂e emissions over the product life-cycle. There is also the development of solutions for battery-electric rail and road transport. Smaller amounts of expenditure in the area of e-mobility that cannot be capitalised (6.5 “Transport by [...] passenger cars”) also deserve mention.

Capital expenditures (CapEx) – The basis of the economic activities to be analysed comprises additions to both property, plant and equipment and to intangible assets in the amount of € 7.7 million (see also III “Notes to the Balance Sheet, Consolidated Statement of Changes in Fixed Assets”). Taxonomy-conforming capital expenditures are primarily the expenditures to create a charging infrastructure for electric cars at the Sassenberg and Meinerzhagen locations (7.4, Installation [...] of charging stations for electric vehicles [...]) and the acquisition of an electric forklift truck at the production location in Bad Doberan, to replace the diesel-powered forklift truck there (6.5, Transport by [...] light commercial vehicles).

In addition, capital expenditures that improve energy efficiency at our company's locations can be reported in category 7.3 (Installation, maintenance and repair of energy efficiency equipment) from Annex I of IR 2021/2139. The investment in energy-saving LED lighting constitutes such a taxonomy-conforming activity. The completion of the changeover to an energy-efficient heating concept for production halls can also be reported as a taxonomy-eligible investment, pursuant to category 7.3 from Annex I of IR 2021/2139. For the latter, it was not possible to confirm beyond doubt that all requirements had been met, so this investment cannot be reported as taxonomy-conforming.

In addition, the optimisation of the PV system at the production location in Baden-Baden can be reported under category 7.5 (Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings) pursuant to IR 2021/2139 because the measure increased the internal consumption rate of the solar power generated.

The following KPIs as well as the key figures in the following comprehensive reporting forms are correspondingly reduced in line with the descriptions.

Share of revenue from taxonomy-conforming and taxonomy-eligible economic activities

Financial year 2023	Year		Substantial contribution criteria						DNSH criteria ("Does Not Significantly Harm")						Proportion of Taxonomy-aligned (A.1) or -eligible (A.2) turnover, year 2022 (18)	Category enabling activity (19)	Category transitional activity (20)		
Economic Activities (1)	Code (2)	Turnover (3)	Proportion of turnover, year 2023 (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)			
Text		KEUR	%	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	Y; N; N/EL	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Manufacture of other low carbon technologies	CCM 3.6	18.537	7,1%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	12,0%		
Manufacture of rail rolling stock constituents	CCM 3.19	9.500	3,6%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%	E	
Manufacture of high, medium and low voltage electrical equipment	CCM 3.20	6.815	2,6%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%	E	
Infrastructure for rail transport	CCM 6.14	424	0,2%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%	E	
Turnover of environmentally sustainable activities (Taxonomy-aligned) (A.1)		35.276	13,5%	100%	0%	0%	0%	0%	0%	-	Y	Y	Y	Y	Y	Y	12,0%		
Of which enabling		16.739	47,5%	47,5%	0%	0%	0%	0%	0%	-	Y	Y	Y	Y	Y	Y	0%	E	
Of which transitional		0	0%	0%						-	Y	Y	Y	Y	Y	Y	0%		T
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Manufacture of other low carbon technologies	CCM 3.6	2.127	0,8%	EL	EL	N/EL	N/EL	N/EL	N/EL	EL	EL	EL	EL	N/EL	N/EL		0,8%	E	
Manufacture of automotive and mobility components	CCM 3.18	2.629	1,0%	EL	EL	N/EL	N/EL	N/EL	N/EL	EL	EL	EL	EL	N/EL	N/EL		0%	E	
Repair, refurbishment and remanufacturing	CE 5.1	18.879	7,2%	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL		-		
Sale of second-hand goods	CE 5.4	95	0,0%	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL	N/EL		-		
Turnover of Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		23.730	9,1%	20,0%	20,0%	0%	0%	80,0%	0%	-	Y	Y	Y	Y	Y		0,8%		
A. Turnover of Taxonomy-eligible activities (A.1+A.2)		59.006	22,5%	67,8%	8,1%	0%	0%	32,2%	0%	-	Y	Y	Y	Y	Y		12,9%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
Turnover of Taxonomy-non-eligible activities		203.110	77,5%																
TOTAL		262.116	100%																

Share of OpEx from taxonomy-conforming and taxonomy-eligible economic activities

Financial year 2023	Year		Substantial contribution criteria						DNSH criteria ("Does Not Significantly Harm")						Proportion of Taxonomy-aligned (A.1) or -eligible (A.2) OpEx, year 2022 (18)	Category enabling activity (19)	Category transitional activity (20)			
	Code (2)	OpEx (3)	Proportion of OpEx, year 2023 (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)				
			%	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	Y: N: N/EL	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																				
A.1 Environmentally sustainable activities (Taxonomy-aligned)																				
Transport by motorbikes, passenger cars and light commercial vehicles	CCM 6.5	14	0,2%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	Y	0,0%		
	CCM 9.1	428	5,6%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	Y	6,0%		
	Close to market research, development and innovation																			
OpEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		442	5,7%	100%	0%	0%	0%	0%	0%	-	Y	Y	Y	Y	Y	Y	Y	6,2%		
Of which enabling		-	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-	-	-	-	0,0%	E	
Of which transitional		-	0%	0%						-	-	-	-	-	-	-	-	0,0%		T
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																				
OpEx of Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		0	0%	-	-	-	-	-	-									0,0%		
A. OpEx of Taxonomy-eligible activities (A.1+A.2)		442	5,7%	-	-	-	-	-	-									6,2%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																				
OpEx of Taxonomy-non-eligible activities		7.264	94,3%																	
TOTAL		7.706	100%																	

Share of CapEx from taxonomy-conforming and taxonomy-eligible economic activities

Financial year 2023	Year		Substantial contribution criteria						DNSH criteria ("Does Not Significantly Harm")						Proportion of Taxonomy-aligned (A.1.) or -eligible (A.2.) CapEx, year 2022 (18)	Category enabling activity (19)	Category transitional activity (20)		
Economic Activities (1)	Code (2)	CapEx (3)	Proportion of CapEx, year 2023 (4)	Climate Change Mitigation (5)	Climate Change Adaptation (6)	Water (7)	Pollution (8)	Circular Economy (9)	Biodiversity (10)	Climate Change Mitigation (11)	Climate Change Adaptation (12)	Water (13)	Pollution (14)	Circular Economy (15)	Biodiversity (16)	Minimum Safeguards (17)			
Text		KEUR	%	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y; N/ N/EL	Y/N	%	E	T
A. TAXONOMY-ELIGIBLE ACTIVITIES																			
A.1 Environmentally sustainable activities (Taxonomy-aligned)																			
Transport by motorbikes, passenger cars and light commercial vehicles Installation of energy efficiency equipment Installation, maintenance and repair of charging stations for electric vehicles Installation, maintenance and repair of instruments and devices for measuring, regulation and controlling energy performance of buildings	CCM 6.5	108	1.4%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%		
	CCM 7.3	15	0.2%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%		
	CCM 7.4	58	0.7%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%		
	CCM 7.5	10	0.1%	Y	N	N/EL	N/EL	N/EL	N/EL	-	Y	Y	Y	Y	Y	Y	0%		
	CapEx of environmentally sustainable activities (Taxonomy-aligned) (A.1)		191	2.5%	100%	0%	0%	0%	0%	0%	-	Y	Y	Y	Y	Y	7.6%		
Of which enabling		-	0%	0%	0%	0%	0%	0%	0%	-	-	-	-	-	-	-	0%	E	
Of which transitional		-	0%	0%						-	-	-	-	-	-	-	0%	T	
A.2 Taxonomy-eligible but not environmentally sustainable activities (not Taxonomy-aligned activities)																			
Installation of energy efficiency equipment	CCM 7.3	151	1.9%	EL	EL	N/EL	N/EL	N/EL	N/EL	EL	EL	N/EL	N/EL	N/EL	N/EL	N/EL	1.4%		
CapEx of Taxonomy eligible but not environmentally sustainable activities (not Taxonomy-aligned activities) (A.2)		151	1.9%	100%	0%	0%	0%	0%	0%								1.4%		
A. CapEx of Taxonomy-eligible activities (A.1+A.2)		342	4.4%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%	7.6%		
B. TAXONOMY-NON-ELIGIBLE ACTIVITIES																			
CapEx of Taxonomy-non-eligible activities		7408	95.6%																
TOTAL		7750	100%																

Highlights of 2023 and outlook

Sustainable service – technotrans is increasingly shifting to digitalisation for its service operations. The adoption of augmented reality (AR) headsets permits comprehensive remote service that benefits the environment and customers alike. The technology enables a swift response to many customer issues and therefore saves resources for any travel. Essential call-outs for service engineers are optimised using field service management software that compiles the most time-efficient and economical itinerary.

Electric mobility – Having secured two major contracts for charging infrastructure cooling solutions, technotrans is helping to drive the switch to climate-friendly mobility. For example, ADS-TEC Energy is using technotrans cooling systems for its battery-based ultra-fast charging stations. technotrans also secured a major contract from a leading German technology group for the cooling of rapid-charging cables for use in rapid-charging parks in the United States.

Green hydrogen – The H₂HoWi pilot project, which was run jointly with Westnetz, demonstrates the technical feasibility of converting a natural gas main to purely hydrogen. From the end of October 2022, technotrans had been sourcing hydrogen to heat the Holzwickede location. The project reached a successful conclusion at the end of 2023 and its continuation is planned.

Photovoltaic systems – Our PV system at Baden-Baden was in operation year-round for the first time in 2023. Over 252,400 kWh of green power was generated and used directly on-site. The PV system therefore covers 33 % of total electricity requirements. In accounting terms, including the 119,800 kWh of power fed into the grid, 49 % of electricity requirements were actually met with renewable power. At our location in Brazil, we installed a PV system that will prospectively cover the entire power requirements thanks to the many hours of sunlight.

Circular economy – The switch to 100 % single-grade-recyclable forms of packaging material was achieved at a further location in the past year. Meinerzhagen now joins Sassenberg and Baden-Baden in using sustainable solutions for product packaging. Bad Doberan is currently also in the process of switching to single-grade-recyclable packaging.

Protecting natural resources – The roll-out of the “Digital Only” concept by the Group company gds GmbH across all technotrans locations was completed successfully. Building on the remarkable yearly saving of 1.3 million sheets of paper printed double-sided at Sassenberg alone, the annual saving has now reached 3 million pages.

b) Employee matters, training and qualification

Committed employees with excellent skills are the bedrock of our success. We attach huge importance to targeted promotion and career development to ensure that our specialists and managers progress personally and professionally. We consider attractive development opportunities and a positive corporate culture to be very important. We encourage a work-life balance involving flexible working hours models and opportunities to work from home. Particular emphasis is placed on the training of apprentices at technotrans. We regard this activity as part of our social responsibility and an investment in the future. Apprentices and those on dual study programmes play a substantial part in the further development of our technology company.

Employee structure of the technotrans Group

The following table indicates the employee structure of the technotrans Group:

	2023		2022	
	Number	in %	Number	in %
Employees as of Dec. 31	1,598		1,500	
Employees by segment				
Technology	1,193	74.7	1,123	74.9
Services	405	25.3	377	25.1
Age structure				
Employees up to 20 years	114	7.1	84	5.6
Employees 21 to 30 years	310	19.4	305	20.3
Employees 31 to 40 years	385	24.1	373	24.9
Employees 41 to 50 years	327	20.5	312	20.8
Employees over 50 years	462	28.9	426	28.4
Period of employment				
up to 5 years	760	47.6	694	46.3
6-10 years	269	16.8	245	16.3
11-20 years	272	17.0	268	17.9
21-30 years	229	14.3	226	15.1
over 30 years	68	4.3	67	4.5
Employees by qualifications				
Employees with vocational training	819	51.3	763	50.9
Employees with an academic degree	315	19.7	319	21.3
Employees with an engineering qualification	232	14.5	220	14.7
Employees without qualification	97	6.1	91	6.1
Trainees	135	8.4	107	7.1
Diversity				
Number of male employees	1,287	80.5	1,205	80.3
Numer of female / diverse employees	311	19.5	295	19.7

Demographic change and the growing shortage of skilled labour represent significant challenges for human resources management. To avoid potentially negative consequences for the technotrans Group for instance in the form of unfilled positions, we strive for a consistently high proportion of apprentices. As part of our strategic human resources planning, we have also taken steps to guarantee optimum staffing levels to cover the future growth of the technotrans Group.

We offer our employees and juniors excellent prospects. We give preference to the recruitment of specialists and management employees from our own ranks and from our Group companies' home regions. High-potentials are specifically prepared for taking on wider-ranging specialist or managerial tasks through the #tttalents development programme launched in 2022. A further building block was added in the 2023 financial year in the shape of a new trainee programme for university graduates. The initial programme focuses on sales.

The number of apprentices rose significantly by 28 compared with the previous year. At December 31, 2023 the technotrans Group had 135 (previous year: 107) apprentices. The steepest growth occurred at technotrans SE, which had 90 apprentices at the balance sheet date (previous year: 59). The proportion of apprentices across the Group rose to 8 % (previous year: 7 %). The figure of 12 % at technotrans SE represents a significant rise on the prior-year figure of 9 %.

Apprentices are trained in 30 different vocations. To encourage specialist and personal exchanges, we enable our apprentices to take on assignments at different locations. On the one hand this acknowledges the growing importance of collaboration within the technotrans Group in order to achieve the goals of Future Ready 2025, and on the other hand it increases the appeal of our apprenticeships.

We have our own teaching workshops at our manufacturing companies. They include a special electrical training room for apprentices. By attending in-house instruction and training courses in various departments, our apprentices receive the ideal preparation for their future tasks. Our instructors, too, receive regular advanced training to ensure they are always up to speed. 29 apprentices successfully completed their training in the 2023 financial year. Of this total, 27 opted to accept permanent positions at technotrans. The retention rate was therefore 93 % (previous year: 83 %).

We offer former apprentices who have chosen to pursue a course of studies or higher school education the opportunity to work for us out of term. This way of maintaining contact with them puts us in a good position to take them on again after they have completed their studies or further training.

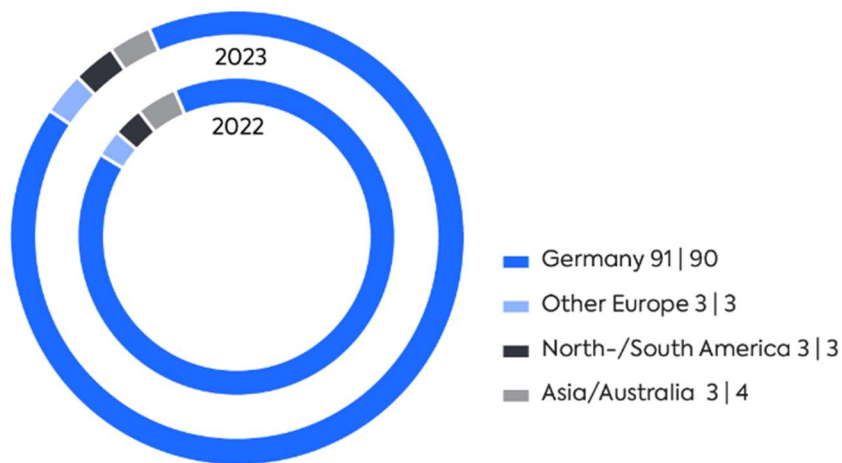
There were comprehensive training courses and further training conducted by internal specialists and external instructors in the 2023 financial year. The goal is to ensure everyone throughout the Group always has access to sound specialist expertise. Employees define their training requirements with their line managers at least once a year. Additional reviews can be arranged at any time. For further-reaching measures Human Resources is brought in to plan tailored professional development. Annual planning talks are held between Human Resources and the heads of department to identify requirements. Priorities are set for the year in progress based on budgets. The measures are then assessed at the next evaluation. Employees of technotrans SE and gds can access the full spectrum of human

resources development opportunities through a structured online training catalogue (“technotrans Campus”). Work is in progress to make it available Group-wide through a new application.

Human resources development is a major component of the Future Ready 2025 strategy. As a strategic ESG target, it was therefore specified that human resources spending should therefore rise by 5 % annually. An increase of around 46 % compared with the base year 2019 means that we have already easily exceeded the strategic goal for 2025.

The regional composition of our workforce remained virtually unchanged from the previous year. In light of our Future Ready 2025 strategy, the proportion of employees at our international locations is likely to rise in the medium term.

Composition of Group workforce by location, 2023/2022 (%)



Employee structure of technotrans SE

The following table indicates the employee structure of technotrans SE. It differs from the summary in the HGB annual financial statements.

	2023		2022	
	Number	in %	Number	in %
Employees as of Dec. 31	771		676	
Employees by segment				
Technology	640	83.0	560	82.8
Services	131	17.0	116	17.2
Age structure				
Employees up to 20 years	77	10.0	51	7.5
Employees 21 to 30 years	177	23.0	160	23.7
Employees 31 to 40 years	162	21.0	149	22.0
Employees 41 to 50 years	146	18.9	132	19.5
Employees over 50 years	209	27.1	184	27.2
Period of employment				
up to 5 years	422	54.7	329	48.7
6-10 years	100	13.0	97	14.3
11-20 years	108	14.0	103	15.2
21-30 years	114	14.8	122	18.0
over 30 years	27	3.5	25	3.7
Employees by qualifications				
Employees with vocational training	410	53.2	365	54.0
Employees with an academic degree	130	16.9	124	18.3
Employees with an engineering qualification	102	13.2	94	13.9
Employees without qualification	39	5.1	34	5.0
Trainees	90	11.7	59	8.7
Diversity				
Number of male employees	625	81.1	548	81.1
Numer of female / diverse employees	146	18.9	128	18.9

Health management

Promoting the health of our employees is a major priority for us. Our active health management seeks to ensure that our employees perform well along the entire process chain. The occupational health service conducts the check-ups required by law on a regular basis. technotrans employees have the option of free flu vaccinations and enjoy employer-financed supplementary dental insurance. technotrans also offers leasing of bikes for its employees. This healthy mobility option has been enthusiastically received: 235 lease agreements had been taken out as of December 31, 2023. Employees also receive special terms for gym membership and can take part in company runs – a both healthy and sociable activity.

Remuneration and employee rights

Employees are remunerated in line with the market; remuneration comprises fixed and variable components that are standardised across the domestic locations. Employees are placed in specific remuneration bands depending on position and grade, also taking into account how well the targets agreed with their line manager have been achieved. Managers receive an individually agreed bonus that is based in equal parts on the attainment of company targets and on their personal performance. Annual pay increases for the entire workforce are negotiated between the Board of Management, management (of subsidiaries) and Works Council based on the business performance of the technotrans Group. We additionally offer certain fringe benefits on a location-by-location basis to reflect local circumstances and options. There were remuneration adjustments in the 2023 financial year to help employees absorb some of the burden of higher inflation in 2022.

Safety at the workplace for our employees is among our priorities. It is a matter of course that we observe all applicable statutory regulations regarding industrial, operational, occupational and fire safety as well as environmental protection. Our occupational safety specialists support our management employees on hazard assessments at each location so that workplaces are at all times guaranteed to be safe, healthy and state-of-the-art. Managers are moreover responsible for ensuring that employees comply with all the relevant provisions. Every employee receives instruction on the guidelines as part of training that is repeated regularly.

The premises and manufacturing processes at our production locations are by their very nature varied. We have accordingly developed individual safety concepts. These ensure that the relevant statutory requirements are complied with and include quarterly meetings of the industrial safety committee. The meetings are attended by the occupational safety officer, the medical officer, members of the Works Council, safety officers and a representative of the company management. To maintain a constant sharing of insights, we hold scheduled or impromptu site inspections and meetings with first responders and with fire and safety officers. The aim of these activities is to identify potential hazards early on and take preventive action.

The interests of employees are represented by the Works Council and Group Works Council. The Group Works Council comprises two members of each of the Works Councils of technotrans SE at the Sassenberg and Bad Doberan locations, technotrans solutions GmbH, technotrans Systems GmbH and gds GmbH. Its members regularly discuss employee matters at the domestic Group companies. Among other things they draw up cross-site, standard agreements for the Group. The Works Council of technotrans SE currently comprises ten members from the Group Works Council and three members from the European branches. This committee draws up employee-related agreements at European level. A professional, non-discriminatory dialogue between the employee representatives and

management is part and parcel of the corporate culture at technotrans. Openness and trust are hallmarks of cooperation. The declared aim is to strike an equitable balance of interests between employees and employer.

Equal opportunities, diversity and work-life balance

The Group's corporate culture ensures that no discrimination of any kind is tolerated against persons based on factors such as age, nationality, skin colour, gender, religion, social background or disability. We adopt a zero-tolerance stance towards any such misconduct at the workplace. Human resources decisions on appointments, promotions, remuneration and dismissals are always reached in accordance with these principles. We value the diversity of our workforce. It is a hallmark of our corporate culture that we treat each other openly, fairly and respectfully – principles that are firmly anchored in our global Code of Conduct and are put into practice on a day-by-day basis. We steadily develop the aspects equity, diversity and inclusion, or EDI for short.

At technotrans SE, there were employees of 20 different nationalities at the Sassenberg, Bad Doberan and Steinhagen locations at December 31, 2023. 39 nations were represented across the Group. We believe this yields a diversity of experience and working styles that enriches the innovative capability of the technotrans Group.

One important priority among our diversity initiatives is to promote an appropriate proportion of women to specialist and management positions. The proportion of women in the overall workforce was 19.46 % across the Group. This meant the target figure of at least 20 % according to the Future Ready 2025 strategy was just missed. The proportion of 1st and 2nd tier female managers was 8 % and 14 % respectively at the end of the financial year.

As an employee-friendly operation, we actively help our employees to strike a balance between their work and private sphere. To that end, we offer flexible working hours models such as flexitime, a range of part-time options and scope to work from home. These enable us to respond to the needs of each individual employee. Around 12 % of all employees across the Group work part-time, and home-working opportunities are also readily taken up. technotrans has teamed up with a municipal day care centre to provide childcare for parents at the Sassenberg location.

The satisfaction and motivation of our employees are crucial to the long-term success of the Group. Open, amicable and fair communication between management and workforce is firmly embedded in our corporate culture. Our human resources policy aims to promote that culture and further enhance the attractiveness of the technotrans Group as an employer in order to ensure there are always enough qualified specialists within the company.

technotrans conducted an employee survey at its German locations in the 2023 financial year to identify possible areas for improvement and gauge the level of satisfaction among the workforce. 1,037 employees took part in the survey; this was a response rate of around 77 %. Overall, we detected a pleasingly high level of satisfaction and identification with the company among employees across all locations. The feedback on the areas Work, Team & Cooperation and Responsibility & Diversity was especially positive. The survey also covered aspects such as Framework Conditions, Further Training,

New Work, Leadership, Organisation and Health. Employees can now get involved in workshops to develop their working environment collaboratively.

If an employee hands in their notice, we for instance hold an exit interview with them. Our goal is to identify the causes of fluctuation and address them swiftly. The fluctuation rate for the Group as a whole was around 7 % in 2023.

At December 31, 2023 there were 1,598 (previous year: 1,500) employees in the technotrans Group. This represents an increase of around 7 % on the previous year. technotrans SE had 754 (previous year: 676) employees at the balance sheet date, representing an increase in personnel of around 12 %.

c) Social matters

technotrans attaches considerable importance to data protection and data security. The spread of digitalisation and connectivity goes hand in hand with tougher statutory requirements. Upholding data privacy laws is a key basis for cooperation with our employees and business partners. We regard it as a given that our IT systems implement the law, including GDPR, in a compliant manner. We collect, save and process personal data exclusively for its intended purpose and in keeping with the applicable laws.

As a medium-sized company with an international network, we are also committed to our community. We therefore get involved at our various locations in community projects and initiatives. In the 2023 financial year these included the involvement of apprentices from the Sassenberg location in Social Day 2023 and the collaboration of the Baden-Baden location with Lebenshilfe WDL Nordschwarzwald counselling centre and the Murgtal Werkstätten workshops for people with disabilities. These activities emphasise our strong ties with the regions in which we want to conduct business operations over the long term. Our social engagement varies from location to location and involves both strategic partnerships and individual projects for employees. Social commitment activities are handled on a regional basis, in close consultation with Group headquarters. Our engagement also included making a donation to German Cancer Aid.

technotrans systematically seeks to recruit new employees based at the company's locations. In partnership with federations and regional schools and colleges, we organise regular events to promote juniors in technical disciplines and support them with the process of making their career choices. We seek to promote interest in MINT subjects (mathematics, information technology, natural sciences, technology) through various initiatives and projects. We also offer approved student internships to young people as an opportunity to gain an insight into the world of work. These internships for career orientation are offered regularly during school holiday. The same approach is taken to vocational fact-finding days, where school students can get to know the wide range of vocational qualifications available within the technotrans Group.

d) Respect for human rights

Equal opportunities, equal rights, fairness as well as mutual acceptance and tolerance are fundamental principles of the technotrans Group's corporate culture. We appreciate diversity both within our organisation and among our business partners. Our goal is to ensure that all employees of the technotrans Group operate in line with internationally recognised human rights and the principal labour and social standards.

We actively advocate the protection of human rights and uphold compliance with labour standards. We emphatically reject child and forced labour. Through our membership of the UN Global Compact (UNGC) and by enshrining the UNGC principles in our Code of Conduct, we bind all technotrans employees worldwide into these rules. The implementation of national standards is the responsibility of local management, which is reviewed regularly. All Group-wide directives on labour standards and human rights were complied with in the 2023 financial year.

Nor do we accept human rights abuses by service providers and suppliers. New suppliers of technotrans SE have to complete a standardised clearance process that requires positive ratings for the compliance code for suppliers, compliance with working conditions and social standards, and also environmental protection requirements. This process is also implemented in a similar form by our subsidiaries. Correspondingly, there are uniform criteria across the Group for purchasing processes.

We therefore require our direct suppliers to make their upstream suppliers aware of our requirements and oblige them to comply with our compliance code. Our ongoing aim remains to achieve transparency and compliance along the entire supply chain. However the high number of suppliers and sub-suppliers means we have only limited scope to supervise or scrutinise the preceding stage of the supply chain. Because no direct contractual relationship exists with suppliers further upstream, there is only indirect scope for intervening. We are reporting based on German LkSG from the start of the 2024 financial year. As outlined in the Sustainability Management section, we have developed our own software to check compliance with the legal requirements.

Compliance with appropriate environmental standards and implementation of occupational safety measures at our suppliers are assessed and documented through regular on-site audits.

e) Combating of corruption and bribery

Relationships with our business partners are based on quality, reliability, competitive prices and compliance with ecological and social standards. Systematic compliance with these standards by all employees is a major factor in technotrans' excellent reputation in procurement and sales markets. It also plays a significant role in our continuing ability to acquire new customers.

To protect the technotrans Group against potential losses, we maintain transparency and implement internal control mechanisms. Strict compliance with our anti-corruption guideline – which is valid company-wide and mandatory – plays a crucial role in what is an integral part of our compliance management system. Our employees are under an obligation to notify the relevant manager immediately of any form of actual or attempted bribery. In cases of doubt, the Legal & Compliance department or the Group Board of Management should be contacted.

Contractual provisions that depart from the norm and special blanket agreements must fundamentally be cleared by the Legal & Compliance department and documented. By way of preventive anti-corruption measures, we run internal training courses to provide instruction on how to recognise and meet these and other compliance requirements, which are tested on a random basis. In addition, a Group-wide signatory policy that foresees exclusively joint authorisation prevents illegal dealings. No cases of corruption came to our attention in the 2023 financial year. Compliance with the anti-corruption principles based on the statutory requirements is monitored worldwide throughout the Group. The Group has a firmly embedded whistleblower system that is in line with the current statutory EU regulations.

Across the Group, all new employees are comprehensively familiarised with the applicable compliance regulations on their first day at work. Employees must also complete regular refresher training courses. This training is delivered Group-wide through a workplace training app. This approach upholds integrity and compliance with the law throughout the Group at all times without restriction.

Strategic sustainability goals

The level of target attainment of the strategic sustainability goals in the 2023 financial year is summarised in the following table:

ESG-criteria	Description	Target / KPI	Status 2023
1. Electricity	Use of renewable energies	share 2025: 100 % „green power“	67 % renewable power
2. Vehicle fleet	Reduced revenue-related fuel consumption	Reduction of 5% p.a. on average	22,6 % reduction compared to base year 2019
3. Diversity	Continuous upholding of the group wide share of female / diverse employees (HC)	min. 20%	Share on Dec. 31, 2023: 19.5 %
4. Personnel development	Increase of expenses	Increase of 5% p.a.	46 % increase compared to base year 2019, target for 2025 exceeded
5. Reduction of packaging waste	Sole use of single-origin recyclable packaging material	share 2025: 100%	3 out of 7 sites converted ¹

¹ The leased production location Steinhagen is not included

Overview of selected sustainability key figures:

	Indicator	EFFAS Indicator	Unit	2021	2022	2023	YOY
Environment	Energy consumption*						
	Energy consumption, total	E01-01	MWh	15,606	15,162	15,119	0%
	Energy per turnover		MWh/m€	74	64	58	-10%
	Gas		MWh	6,581	6,077	5,973	-2%
	Fuel		MWh	3,827	3,963	4,061	2%
	Electricity		MWh	5,198	5,122	5,085	-1%
	thereof GoO "EU-Wind and PV-power"***		MWh	1,900	2,065	2,920	41%
	thereof PV-power, production		MWh	81	203	451	123%
	Greenhousegas emissions*						
	location-based CO ₂ e-emissions scope 1 and 2	E02-01	t CO ₂ e	4,385	4,379	4,021	-8%
	market-based CO ₂ e-emissions scope 1 and 2		t CO ₂ e	3,183	3,097	2,816	-9%
	market-based CO ₂ e-emissions scope 1 and 2 per turnover		t CO ₂ e/m€	15.1	13.0	10.7	-17%
	average greenhouse gas potential of refrigerants		GWP	1,115	1,000	1,065	6%
	Waste and water*						
	Waste, total	E04-01	t	1,143	973	1023	5%
	Waste per turnover		t/m€	5.4	4.1	3.9	-5%
Human	Share of material recycling	E05-01	%	-	78	75	-
	Water, total		m ³	8,884	7,797	8,916	14%
	Water per turnover		m ³ /m€	42	33	34	4%
	Products						
	operational life of products		years	> 15	> 15	> 15	-
	Recyclability of products		%	> 95	> 95	> 95	-
	Employee structure						
	Age structure	S03-01					
	up to 20 years		FTE	3	2	4,5	125%
	21-30 years		FTE	223	235	245,3	4%
	31-40 years		FTE	346	337	362,2	7%
	41-50 years		FTE	294	292	314,3	8%
	from 51 years		FTE	380	407	438,6	8%
	Female/diverse employees in the group	S10-01	%	18,5	17,7	17,8	1%
	Female managers in the Group (first and second management level)		%	11,4	12	12	0%
	Trainees in the Group***		number	104	107	135	26%
	Fluctuation		%	8	7	7	9%
Process	Employee health						
	Sickness rate as a percentage of total working hours		%	6	6	5,6	-7%
	Employee qualification						
	Employees in the Group who have received the technotrans Code of Conduct		%	100	100	100	-
	Qualification, education and training	S02-02	€/FTE	332	403	411	2 %
	Supply chain						
Social	Percentage of suppliers assessed for compliance with ESG criteria	S06-01	%	100	100	100	-
	Percentage of suppliers audited for compliance with ESG criteria	S06-02	%	100	100	100	-
Social	Corporate Governance						
	Payments to political parties	G01-01	%	0	0	0	-
	Penalties for anti-competitive practices	V01-01	€	0	0	0	-

* Production facilities Germany (Sassenberg, Meinerzhagen, Baden-Baden, Bad Doberan, Holzwickede), Taicang and Mt. Prospect

** Adjusted value for 2020

*** Figures incomplete, retrospective determination not possible

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In the interest of better readability, we refrain from using gender-differentiating formulations throughout. In the interest of equality, the corresponding terms apply to all genders. The abbreviated form of language is for editorial reasons only and does not imply any valuation. Rounding differences may occur.

