

# Sustainability Report 2021



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## Dear readers,

In the first year of the Future Ready 2025 strategy under the claim power to transform, technotrans has achieved all its strategic and operational goals despite a challenging market environment. That includes our 5 strategic sustainability goals, which are related to the areas of environment, social and governance. The importance of ESG aspects is also underlined by this report, which is an excerpt of the 2021 Annual Report.

### Strengthening the focus on sustainability

In 2021, we calculated the CO<sub>2e</sub>-footprint for the technotrans Group and created the new Sustainability Management division. This division is the basis for our path to climate neutrality and for increasing transparency with regard to sustainability aspects. With our energy-efficient products, we are already helping to reduce CO<sub>2</sub>-emissions. Investments in sustainable energy supply using photovoltaics or hydrogen at our sites in Baden-Baden and Holzwickede underline the path we have taken. Another milestone is our joining to the UN Global Compact, the world's largest and most important initiative for sustainable and responsible corporate governance.

### Health of our employees

The well-being, health and safety of our employees and business partners is our top priority. To contain the COVID 19 pandemic, we have implemented comprehensive hygiene concepts at our sites. This enabled us to limit infection rates in the Group during the fiscal year 2021. Our new home office agreement has established a safe and agile working environment for the period after the pandemic.

### Quality and resource protection

High-quality and durable products are a key focus for technotrans, which has a direct impact on our environment. For us, consideration of environmentally relevant aspects begins in product development. Criteria of energy efficiency, high recyclability, long-term use and refrigerants with the lowest possible global warming potential are of great significance. We are also constantly improving energy efficiency in production. In the fiscal year 2021, we have significantly further developed sustainability aspects in packaging and logistics.

### Outlook

Global decarbonization and the associated electrification are closely linked to our core competency of thermal management. An indispensable aspect in almost all industrial processes. Sustainability aspects are also becoming increasingly important for our customers. Our individual, state-of-the-art solutions meet this demand. We are already ready for the future. This is one of the reasons why our strategy is Future Ready 2025.

Dear readers, technotrans has the strength to turn the transformation process we have started into profitable and sustainable growth. ESG aspects are an integral part of our strategy. Here, too, we will continue to develop in line with our claim [power to transform – strategy into results](#).

The Board of Management

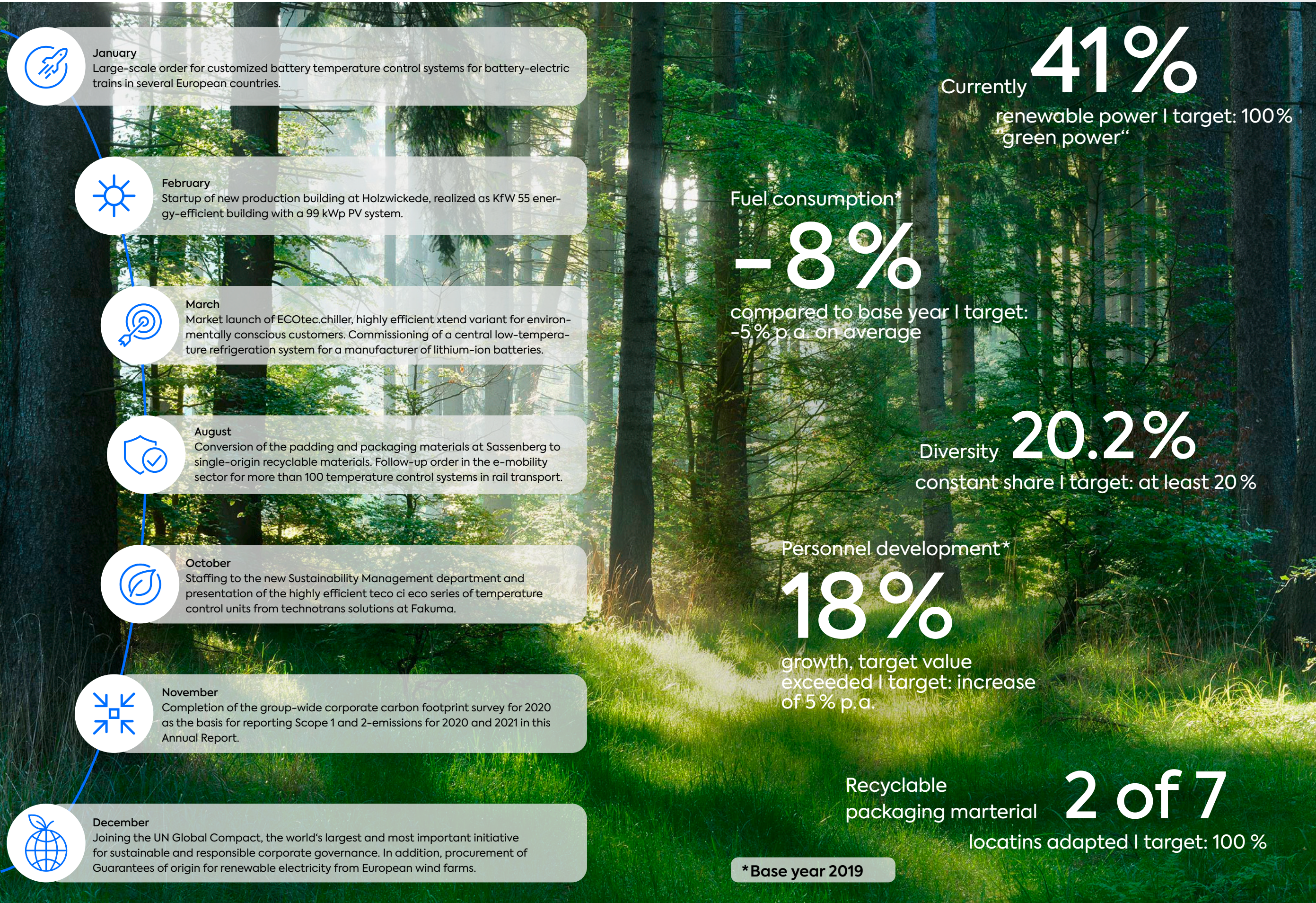
Michael Finger

Peter Hirsch

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# ECONOMIC KEY FIGURES IN 2021



**211.1 m €**  
(+10.8%)

Group revenue

Technology 156.9 m € (+10.6%)  
Services 54.2 m € (+11.7%)



**11.0 m €**  
(+62.7%)

EBIT

Technology 3.1 m € (> +100%)  
Services 7.9 m € (+18.3%)



**5.2%**  
(+1.6% points)

EBIT margin

Technology 2.0% (+2.0% points)  
Services 14.7% (+0.9% points)



**10.0 m €**  
(+154.3%)

Free cash flow



**12.5%**  
(+4.7% points)

ROCE



**57.6%**  
(+4,0% points)

Equity ratio



**0.51 €**  
(+41.7%)

Dividend proposal



**1.02 €**  
(+41.7%)

Earnings per share



**1,433**  
(+24)

Employees as of  
Dec 31, 2021

# STRATEGY AND BUSINESS MODEL

The technotrans Group is a global technology and services group headquartered in Sassenberg, Germany. The company's core competence is application-specific solutions in the field of thermal management. The parent company of the group is technotrans SE. A detailed description of the business model can be found in the Combined Management Report of the Annual Report 2021 in the section „ Basic profile of the Group“.

technotrans' group strategy Future Ready 2025 is focused on sustainable growth aimed at long-term earnings. The assumption of economic, ecological, social and societal responsibility is the basis for successful business activity in the long term. Sustainability is therefore an integral part of the corporate strategy. In the view of the Board of Management, sustainability is a fundamental prerequisite for gaining new customers, opening up new markets, always having access to sufficient financing, and positioning the company as an attractive employer.

This excerpt from the Annual Report 2021 is based on frameworks such as the German Sustainability Code (DNK) and the guidelines of the United Nations Global Compact (UNGC), as well as the EFFAS (European Federation of Financial Analyst Societies) performance indicators.

For the first time, technotrans is reporting on the proportion of ecologically sustainable business activities in relation to revenue, operating expenses and capital expenditure for the financial year 2021 in accordance with Article 8 of the EU Taxonomy Regulation (EU-Taxonomy-VO).

# SUSTAINABILITY MANAGEMENT

As a globally active group, technotrans exists in a constantly changing environment. That also includes sustainable corporate governance requirements in respect of our stakeholders. We respond by maintaining a transparent, constructive dialogue and by handling opportunities and risks responsibly. This enables us to assure the long-term success of our entrepreneurial activities.

An effective compliance and risk management system as well as an effective internal control system (ICS) not only comply with the legal requirements, but also help assure strategic target attainment and therefore the long-term viability and competitiveness of the technotrans Group.

For us, it is a matter of course that all entrepreneurial decisions throughout the Group conform to the applicable laws as well as internal rules and voluntary commitments. Among other things we support the UNGC, of which we are a member. This is a strategic initiative that seeks to promote socially responsible practices (corporate social responsibility) and sustainability in organisations and enterprises. It revolves around ten principles spanning human rights, labour standards, environmental protection and anti-corruption measures. The initiative pursues the overriding goal of consistently shaping the social and ecological aspects of globalisation in accordance with these principles.

We also want to see our employees actively model sustainability in their everyday work. The principles of the UNGC are reflected in the content of our globally applicable Code of Conduct. This document also constitutes the corporate compliance guideline for all employees of the technotrans Group. This code defines standards on how our employees should deal with each other and on how to behave towards our stakeholders, such as customers, suppliers, government agencies and business partners. It also contains important regulations on the issues of occupational safety, data protection, IT security, anti-corruption, competition law, money laundering regulations and environmental protection. As such, it constitutes an important tool for implementing our sustainability strategy.

Every new employee receives a written copy of the code together with their employment contract. Employees are also given training on the technotrans Code of Conduct and current compliance regulations via the e-learning platform “technotrans Campus” introduced Group-wide in the 2021 financial year.

The current version of the technotrans Code of Conduct can be accessed on our website under the following link: <https://www.technotrans.com/company/corporate-governance/compliance>

To ensure compliance with statutory requirements and voluntarily adopted principles, the technotrans Group implements an effective compliance management system according to DIN ISO 19600. The Board of Management holds overall responsible for it. The managing directors/general managers of the national and international Group companies have likewise committed to uphold it. They are supported in their efforts by local compliance officers. This guarantees management and control of Group regulations as well as compliance with statutory requirements and voluntary commitments at all locations. The compliance officers coordinate, train and monitor Group-wide application of the compliance regulations and arrange updates as necessary, e.g. by revising specific organisational guidelines.

One important component of the Group-wide compliance management system is a whistleblower system that is designed not merely to help pre-empt breaches of international law and internal corporate guidelines at an early stage, but also to guarantee protection for the whistleblower so that the latter need not fear any negative civil-law, criminal-law or internal consequences/reprisals as a result of their actions.

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, and also directly if necessary. In addition, the above governing bodies regularly check the status of compliance activities proactively.

A further major component of our sustainability strategy is the Group-wide risk management system based on DIN ISO 31000. This helps technotrans' management to identify and respond to potential opportunities and risks early on. It involves regular, prompt reporting to the Board of Management, among other things. For further information on this topic, please refer to the “Risk management and internal control system” section in the Combined Management Report of the Annual Report 2021.

technotrans has acquired various companies in recent years. The newly added employees were promptly informed about the Group strategy and the applicable compliance regulations, and sensitised to these. The same applies to updates. In this connection, most recently the Board of Management supplied all employees with information about the new Future Ready 2025 strategy in December 2020.

A consistently thorough awareness of sustainability and ongoing efforts to improve our expertise in that regard shape the day-to-day work of all employees. Sustainability aspects are in addition built into our targets.

# STAKEHOLDER DIALOGUE

We regard the requirements of our stakeholders as always highly relevant and we therefore identify their individual needs through a regular dialogue with the key stakeholders in order to meet their expectations of us as a company. We use a variety of information sources and dialogue formats to that end, differentiating between internal communications within the Group and external communications that are aimed at the outside world. The latter comprise communications with customers, press relations (PR) and investor relations (IR) activities.

The technotrans website is a central information medium. Since the update to our web presence at the turn of 2020/2021, the sustainability aspect has enjoyed the status of a separate heading, highlighting its special status. From the third quarter of 2021, we also created the position of Sustainability Manager for the technotrans Group to keep the topic under scrutiny and help it develop. Going forward, we will present all key information and aspects relating to the topic of sustainability at technotrans in summary form on our website.

Internal communications with employees are handled mainly through performance reviews, the Group-wide intranet, e-mails, discussions as well as physical and virtual employee and works meetings. Our employees receive regular briefings and training on relevant matters, including across multiple locations. Suggestions and ideas from employees to stimulate dialogue or consider other topics of interest are expressly welcomed and added to the debate.

The dialogue with existing and potential customers focuses on how technotrans can deliver added value as an expert system partner. The aim is to establish a long-term partnership. Initial contact is frequently established in person or virtually at trade shows, but face-to-face talks also play an important role.

Open-handed communications with private and institutional shareholders, investors and analysts are handled by the Investor Relations area at technotrans. A contact person is always available there to comment on financial reports and answer supplementary questions. Our Sustainability Manager is also an expert point of contact who can provide answers on relevant topics. In addition, the dialogue with institutional investors, shareholders and analysts is conducted in the form of conferences and roadshows. However as in 2020, in the 2021 financial year these mostly took place without physical contact due to the coronavirus pandemic. The same was true of the year's Annual General Meeting, the event that provides our main opportunity for dialogue especially with our private shareholders.

technotrans pursues a transparent and open information policy. Its hallmark is a relationship of trust with all stakeholders that is based on mutual respect. The findings obtained through these dialogues shape our business activities, the development of new products and services and our sustainability management work.

# MATERIALITY

Relevant sustainability-related topics include those that are important for the business success of the technotrans Group and where technotrans can contribute to a sustainable development. technotrans' activities are also relevant where they have a material impact on sustainability aspects such as the use of resources and impact on the environment and climate. Equally, social aspects for example in relation to our employees, regard for human rights and also anti-corruption measures are key aspects and integral to how we do things.

In the following, we outline the material non-financial aspects for the technotrans Group and technotrans SE for the purposes of this report. In addition, we address aspects that do not fully meet the statutory principle of materiality. However because these issues are likewise regularly raised by and discussed with our stakeholders, here again we regard materiality as a given and would like to provide transparent information on them.

Quantitative reporting takes the EFFAS performance indicators as its basis, in essence in the same way as in the 2020 financial year. Taking account of the principle of materiality, we currently report on ten out of 16 EFFAS performance indicators. The overview of key figures is supplemented with our own key figures – not envisaged by EFFAS – which we nevertheless rate as material in the case of the technotrans Group. The set of relevant key figures is regularly reviewed and will be gradually refined. The changes are also shown on a year-to-year basis, in order to identify positive developments. At the same time, this brings undesirable trends to light and thus enables us to counteract them. A table showing all key figures can be found at the end of this report.

Applying the principle of materiality, we report selected key figures such as energy consumption for the domestic production locations Sassenberg, Bad Doberan, Baden-Baden, Holzwickede and Meinerzhagen, as well as for the locations Taicang in China and Mt Prospect in the USA.

For the first time for the past year, we also report on progress with the five sustainability goals defined at the end of 2020 under the Future Ready 2025 strategy; these can also be found on the technotrans website under the Sustainability heading.

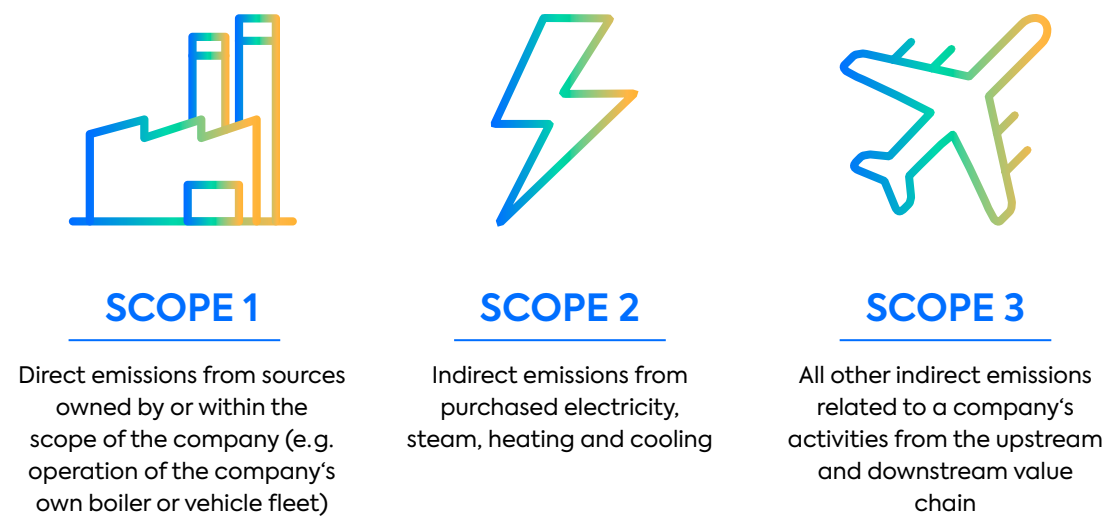
- ESG target for renewable energy: use of 100 % renewable power by 2025
- ESG target for fuel consumption: reduction in fuel consumption averaging 5 % per year by 2025
- ESG target for packaging material: increasing the proportion of single-grade-recyclable packaging materials to 100 % by 2025
- ESG target for diversity: achieving a minimum proportion of 20 % female and diverse employees
- ESG target for personnel development: increasing spending on personnel development by an average of 5 % per year until 2025

technotrans also considered its corporate carbon footprint in 2021 and calculated it for 2020 with a focus on Scope 1 and Scope 2 according to the Greenhouse Gas Protocol; it also surveyed initial aspects from Scope 3. To create transparency for our stakeholders and enable technotrans to exert direct influence on the results, starting with the Annual Report 2021 the results for Scopes 1 and 2 from 2020 plus the updated data for 2021 will be reported for all German production locations as well as for the Taicang and Mt Prospect locations. Further notes and the results are



contained in the section on greenhouse gas performance. These activities, along with our ESG targets on renewable power and reduced fuel consumption, are to be viewed in the context of man-made climate change. technotrans supports the 2015 Paris Climate Agreement and the targets of the EU and Germany to reduce the carbon equivalent (CO<sub>2</sub>e) to limit global warming to no more than 1.5 °C. To that end, we will specifically develop and implement additional measures based on our corporate carbon footprint as well as ensure we meet the targets we have already set.

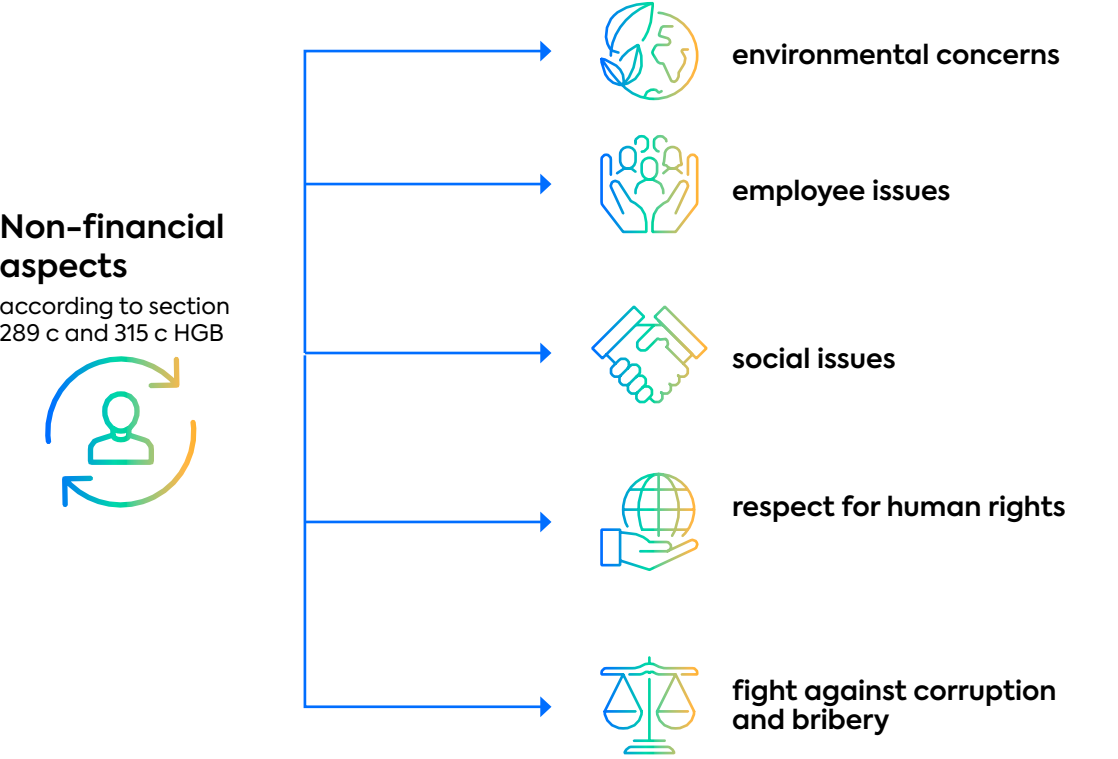
In this report, technotrans will also address the reporting obligations under the EU Taxonomy.



# ENVIRONMENTAL MATTERS

Growth in economic output worldwide will lead to increasing demand for resources. Based on its long-standing experience and extensive expertise in sustainable business practices, technotrans pursues the goal of developing innovative, resource-light solutions for and with its customers in order to reduce the consumption of resources and the release of CO<sub>2</sub>e emissions, and with that its impact on the environment and climate.

Our own aim to reduce our environmental impact and the growing level of regulation have a significant effect on product development work, for example. One form this takes is the need to comply with the statutory requirements of the EU Ecodesign Directive. This has been transposed into German law in the German Act on Energy-Related products (EVPG). These regulations seek to reduce the environmental impacts of energy-related products. Environmental priorities are becoming increasingly important among customers and suppliers, too, which is why we are also steadily improving our products' energy efficiency over and above what is required by law. These efforts are expressed through the eco and xtend product lines, for example, which systematically feature power-regulated compressors, fans and pumps. They are aimed especially at customers who want to products that are kind on the climate and environment. Our products and solutions consequently help our customers to manage energy and resources, and also to reduce their individual CO<sub>2</sub>e footprint effectively.



Sustainable environmental, energy and resource management is a very important aspect of our entrepreneurial activity and competitiveness. It chimes with our strategic goals of steadily improving the Group's efficiency and is also firmly embedded in our compliance culturer.

technotrans' joining of the UNGC in 2021 should also be seen in this context because it underscores our clear commitment to sustainability and human rights. The UNGC is the world's biggest and most important initiative for sustainable and responsible corporate governance. It requires participants to operate in accordance with defined ethical standards that are expressed in ten principles spanning human rights, labour standards, environmental protection and anti-corruption measures. The participants must report yearly on progress in these areas.

We also proactively present our own activities in the context of sustainability. For example, at the Sassenberg location we are a TÜV-certified specialist in accordance with the German Water Resources Act. We extensively use refillable systems and collective packaging, and we seek to avoid and gradually reduce waste as part of our waste management concept.

## Resource conservation

### Packaging material

The first sustainability goal from the Future Ready 2025 strategy should be seen in this context. technotrans has undertaken to steadily increase the proportion of recyclable packaging material used for shipping goods to 100 % by 2025. The change involved to the previous systems is substantial, especially because of the padding used to prevent damage in transit. In addition to assuring damage-free shipping, which involves new packaging materials meeting certain technical requirements, it is also necessary to invest in new packaging machinery to achieve this target. technotrans has already achieved initial results with the ESG target. It has now invested in new packaging machinery for the Baden-Baden and Sassenberg locations and extensively adjusted the packaging concept.

At technotrans in Baden-Baden, the PE foam sheets for shipments of equipment, for example, were replaced with eco PE foam plates made from recycled material, cutting emissions by almost 95 %, from 2.51 kg CO<sub>2e</sub> per kg of packaging material to 0.13 kg CO<sub>2e</sub> per kg. In addition, both locations – Baden-Baden and Sassenberg – had previously used a two-component foam for padding shipped equipment and parts; this material cannot be recycled after use and needs to be disposed of as special waste. This material, too, has now been almost entirely replaced. At Baden-Baden, technotrans now uses a padding system based on recycled paper that achieves the same protective effect but cuts emissions by the packaging material by more than 99 % from approximately 125 kg CO<sub>2e</sub> per kg to 0.2 kg CO<sub>2e</sub> per kg. At technotrans in Sassenberg, the two-component foam was replaced by switching the packaging to card tray inserts and wrapping in PE stretch film; this means both materials can be recycled as separate grades. The Sassenberg location's previous CO<sub>2e</sub> emissions of 840 t per year from the use of CO<sub>2e</sub>-intensive foam are consequently now avoided. In a further improvement, plastic adhesive tapes have been replaced with tapes made from kraft paper. Very heavy products for the shipping of components are the only items for which no alternative to two-component foam has yet been found with an equivalent protective function. In the 2022 financial year we will continue to look for alternative padding materials for such pack items that allow single-grade recycling.

This change has meant that since revising the packaging concept at the Sassenberg location 92 % of all packages have gone out with single-grade-recyclable packaging material. The rate for Baden-Baden is even slightly higher at 97 %. We will apply the experience gleaned from these measures to our other locations in the next few years and bring them in line with changing requirements in order to achieve our ESG target of using exclusively single-grade-recyclable packaging material by 2025.

### Resource-light product development

technotrans develops technologies and methods that make industrial processes more efficient and environmentally friendly. There are various benefits for our customers, for example in the form of reduced consumption of energy and media such as water, oil and additives. The effectiveness and efficiency of these concepts are reflected in the many projects realised in the financial year.

Customer-related development work is done mainly at the domestic production locations, though since the 2020 financial year all Group-wide development activities have been agreed and coordinated centrally under uniform control. This helps to avoid parallel developments, saving human and material resources.

The product development process is governed Group-internally by local and cross-location procedural instructions. technotrans positions itself as a development partner for its customers. To ensure that all customer requirements can be met optimally when developing new and adapting existing solutions, the technical units often collaborate closely with the customer right the way from generating the idea to realising it.

Despite the highly individual nature of projects and the resulting solutions, the approach is represented by a standardised product development process. This internal development process comprises defined stages known as quality gates. It ensures for example that any given project always achieves a satisfactory level of cost effectiveness. The project manager's permission, based on defined criteria that form a checklist, is required to pass through a gate. For very high-importance projects in terms of cost, risk and strategic direction, for example, the consent of the Board of Management is also necessary.

We also use feasibility studies, technology monitoring, internal qualification and ongoing field tests for the process to ensure the defined development targets are achieved. The aim is to avoid wrong developments. The residual risk of miscalculating market potential or customer acceptance, for example, is limited by maintaining a constant, close dialogue with our customers, supplemented with market observations.

For our customers, we develop products that reflect the state of the art. To maintain this expertise going forward and build on it, the Group companies also work with universities and research establishments in the Research & Development area and support students with project, bachelor and masters theses. We also extend this arrangement to include our former apprentices.

In the 2021 financial year we worked on a total of 45 projects in product development, of which 18 have now been successfully completed. 27 other projects are at various stages of implementation. The aim of many development projects from the 2021 financial year was again to reduce the impact on the environment and climate, as well as consumption of materials. These goals were achieved for example by using ultra-high-efficiency fans, pumps and power-regulated compressors in our products, helping to cut energy consumption for the customer. Where possible, the required fill volumes of the refrigerants used were also reduced. Research & development spending is fundamentally shown in the Consolidated Income Statement. However research & development expenditure may additionally be reflected in the cost of sales. That is the case if product development takes place in connection with a revenue-generating customer project.

For further details, see sections 4 (Intangible assets) and 24 (Development costs) in the Notes to the Consolidated Financial Statements of the Annual Report 2021.

### Resource-saving products

technotrans develops solutions that deliver added value for its customers through their high quality, efficiency and performance. In line with recent years, progress was made especially in the area of electric mobility but we also improved the energy efficiency of our products and made greater use of natural refrigerants.

**Electric mobility** – The decarbonisation of the mobility sector is one of the biggest challenges of our time. It is absolutely essential to electrify the transport sector in order to achieve climate protection targets and create sustainable mobility.

technotrans has long-standing expertise and an extensive portfolio in this field of activity. In a wide range of electrification concepts, our thermal management solutions are a core aspect of the overall system that is required to switch to an alternative drive solution. technotrans supplies such systems as cooling for temperature control of batteries, inverters and charging cables. Very many projects revolve around tailor-made, customer-specific design with a focus on energy efficiency. The product range comprises cooling and temperature control systems for lithium-ion batteries for road and rail vehicles as well as for stationary energy storage devices. In addition, technotrans develops and manufactures cooling solutions for HPC (ultra-fast charging points) stations, e-bus charging areas and rail inverters. We are supporting the electrification of local public transport through the use of our systems in e-buses, trams and local trains.



As well as the established drive concepts based on battery technology, we are already developing solutions for drive concepts that use hydrogen as the fuel. This is especially relevant for increasing the range and uptimes of rail and commercial vehicles.

**Environmentally friendly refrigerants** – We are dependent on refrigerants for our cooling systems. As these substances often exhibit high global warming potential, or GWP, the EU specified in its F-Gas Regulation brought in on January 1, 2015 that the use of partially fluorinated hydrocarbons (HFC) must be cut significantly between 2015 and 2030. Over this period, the GWP of refrigerants brought into circulation in the EU is to be reduced to as little as 21 % of the 2015 figure. To act responsibly and meet the EU requirements even though we are only indirectly implicated, technotrans continues to develop solutions for reducing the impact of the refrigerants used in our products on climate change. Aspects that play an important role here include reducing the required fill volumes in the equipment sold, substituting high-GWP refrigerants with ones with low GWP, and testing all our equipment for hermetically sealed refrigerant circuits in order to prevent refrigerants from escaping into the atmosphere. technotrans also offers its customers a conversion service to switch from existing systems to lower-GWP refrigerants. With these measures, we are seeking to apply the EU targets to our own products and design new cooling systems that meet the customer's requirements while using refrigerant with the lowest possible GWP. We were able to keep the GWP steady at 933 in 2021. Nevertheless, thanks to our efforts in 2021 we reduced the aggregate GWP of our purchased refrigerant by almost 16 % despite a 10.8 % increase in our revenue.<sup>1</sup> From 2022, we also aim to meet the GWP reference figure of 840 in order to keep undercutting the EU rules' tough reference limits. The next stage of the EU Regulation's quota system takes effect in 2024 and envisages a cut in average GWP to around 651. We would like to achieve this figure across our product portfolio from the outset.

Such considerations are bringing the use of environmentally acceptable, efficient natural refrigerants increasingly into focus for the technotrans Group. One example from 2021 is that systems containing propane refrigerant with a total cooling performance of around 0.5 MW were sold to customers in the metal finishing and plastics injection moulding sectors. Whereas comparable systems previously used the refrigerants R513A (GWP = 631) or in some cases still R134a (GWP = 1430), the GWP figure for propane is just 3 and in both cases is equivalent to a reduction of > 99 %. In parallel, series production equipment with the natural refrigerant isobutane, which also has a GWP figure of 3, is already being delivered in high numbers to customers in the lab and medical technology area.

**Efficient cooling solutions** – technotrans brought the ECOtec.chiller, the successor product line to the previous omega.line, onto the market in the 2021 financial year. This new-design, modular product line is used in a wide range of areas such as the printing industry, plastics processing, medical technology and machine tools. In a typical load profile in machine tool engineering, the ECOtec.chiller standard version pure already cuts annual electricity consumption by about 16 % compared to the equivalent omega unit that would have been used for the same task. The xtend version, which is equipped with power-regulated compressors, pumps and fans, can bring an approximately 35 % saving in annual electricity consumption, without even taking the associated saving in CO<sub>2</sub>e emissions and costs into account. In the digital printing area, the savings based on the typical load profile for this sector are even higher: here, the pure version of the unit can cut energy requirements by up to 40 % and the xtend units bring an energy saving of up to 57 % compared with the omega product line. The efficiency gain from the xtend units is similarly high when used for cooling baggage scanners, for example.

### Resource-light production

In terms of its own production operations, technotrans is constantly seeking to use finite resources such as energy and other input materials as efficiently as possible. The aim is to avoid any wastage. This approach is especially relevant at our production locations that exhibit higher vertical integration and therefore use more materials and energy (e.g. in the form of painted sheet metal and welded structures). It is our declared aim to reduce consumption of materials and energy and also to minimise waste. Where possible, the latter is sorted by type and sent for recycling. Employees are given training on the resource-light use of working equipment and input materials. They are also encouraged to contribute their own ideas on how to preserve resources; regular use is made of this opportunity.

Environmentally hazardous substances are only used in products if they are unavoidable. The quantities of such substances used are constantly recorded, regularly examined and substitutes are found, where possible. We also strictly adhere to the latest statutory requirements. These are monitored by suitably qualified personnel. We always promptly update the work instructions that are based on these.

The technotrans Group in the first instance manufactures equipment that conforms to the REACH regulation, the RoHS II Directive and CE identification requirements. We also implement customer requirements that in some cases call for conformity to the RoHS II Directive including for products that are not actually covered by the statutory requirements.

We in addition obtain contractual undertakings from our suppliers not to use any environmentally hazardous substances as defined by the REACH regulation. Furthermore, we expect them to comply strictly with the RoHS II Directive. We request all major suppliers of the production locations to confirm compliance with REACH and RoHS-II once a year. We record the REACH and RoHS II conformity of each input material in our ERP systems. We can therefore document from an end product's bill of materials whether a device meets the directive's requirements and to what extent it achieves EC conformity. These processes are gradually being implemented at all production locations.

Another major aspect of resource-light production is avoiding waste and recycling reusable materials. technotrans ensures that waste is collected separately from reusable materials in order to maximise or further increase the proportion of residual material that goes on to be recycled. Starting with the Annual Report 2021, we will report on the amounts of waste arising at our production locations in Germany and at the Taicang and Mt Prospect locations. In future years we will include in our reporting the proportion of waste that is recycled, to provide a clear picture of the quantities in question and the ways in which they are utilised. The total amount of waste generated in 2021 came to 893 t, of which 765 t was generated in essence at the German production locations. Compared to the previous year, the volume of waste therefore increased by 91 t or 11.3 %, which almost exactly tracks revenue growth of 10.8 %.

Consumption of water is another aspect of resource-light production. technotrans used 8,884 m<sup>3</sup> of water at the above locations in 2021, 60 % of which was used roughly equally by the two biggest production locations Sassenberg and Meinerzhagen. However overall consumption compared with the previous year was cut by over 3,300 m<sup>3</sup>. This sharp reduction of 27 % is mainly attributable to one-off effects: in the 2020 financial year two technotrans Group locations experienced damage to their water supply, which was repaired as swiftly as possible. Water consumption by the canteen at Sassenberg was also lower in 2021 due to the periodic switch to takeaway packed lunches because of the pandemic.

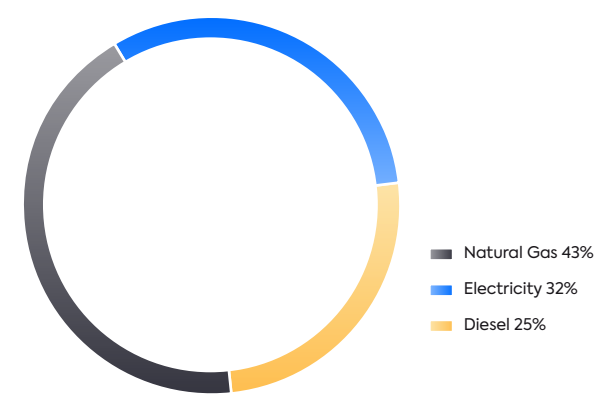
<sup>1</sup>Refrigerant requirements in 2020 and 2021, in each case only for production locations and service operations in Germany

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. We welcome the proposed optimisation measures. In 2021, for instance, the hall lighting in our production zone at Sassenberg was replaced with an LED version, which brought the added benefit of an increase of up to 400 lumens in illumination levels, rendering additional lighting at the workstations obsolete; in addition to the LED version being more efficient compared to the previous lighting, this improved working conditions for our employees. We also made further progress with changing over from desktop PCs to notebooks, NUCs and Thin Clients, which generally use less than one-quarter the energy of a PC. Now only 14 percent of newly purchased computers are PCs, which are basically only used for CPU-intensive simulation and graphic applications. The next energy audit will take place in 2023.

In the 2021 financial year, we calculated the energy consumption of each location ourselves from the invoices, as in the previous year. For reasons of materiality, we focused on the domestic production locations Sassenberg, Bad Doberan, Baden-Baden, Holzwickede and Meinerzhagen as well as on the locations Taicang in China and Mt Prospect in the USA. The analysis covers the three energy sources that are by far the most used: electricity, natural gas and fuels.

Aggregate energy mix across the locations

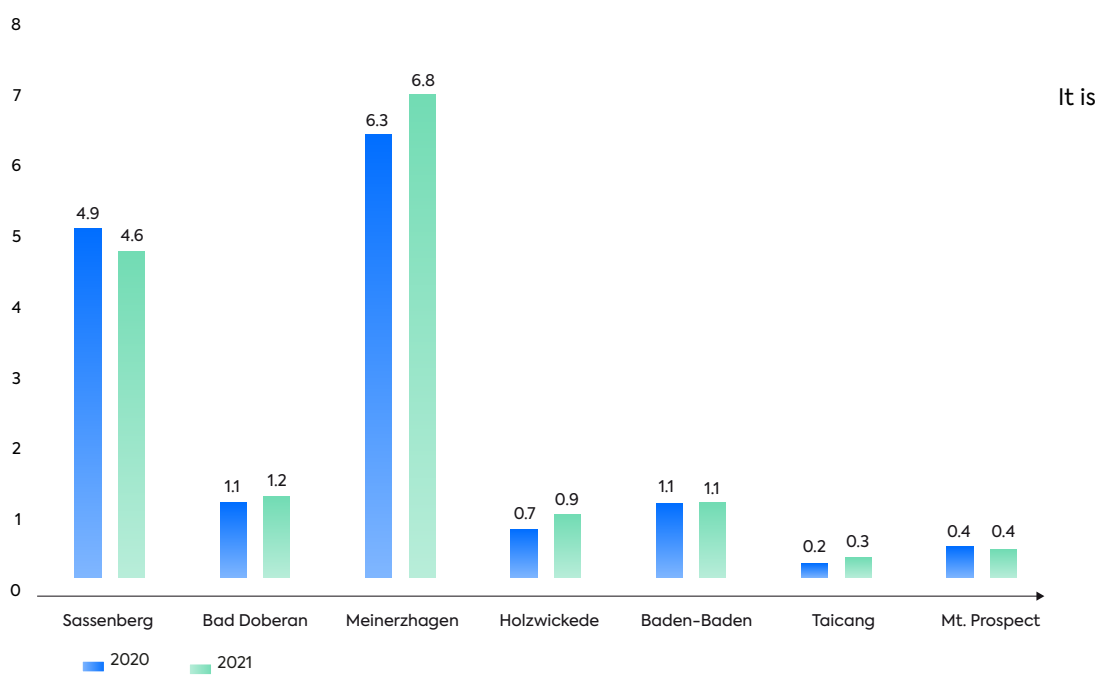


Whereas our energy consumption for the above locations totalled 14.7 GWh in 2020, consumption came to around 15.2 GWh in 2021. The total is therefore up around 4 % on the previous year, bearing in mind that the company’s revenue rose by 10.8 %. When considering these figures it should be noted that the energy consumption of the two production locations Taicang and Mt Prospect of 0.7 GWh was not yet included in the 2020 Annual Report. In a direct comparison merely of the domestic production locations based on the 2020 Annual Report, energy consumption rose from 14<sup>2</sup> GWh in 2020 to 14.5 GWh in the 2021 financial year. The composition of the energy mix for the seven locations named changed only minimally year on year. Natural gas thus accounted for 43 % of the total in the period under review, up from 42 % in the 2020 financial year. Electricity consumption accounted for 32 % of the total (33 %) and fuel consumption for a constant 25 %.

Our two locations Sassenberg and Meinerzhagen had the highest energy consumption, at 4.6 GWh and 6.8 GWh respectively. By contrast the energy consumption of the other locations was comparatively low, at a total of 3.8 GWh. The difference is partly because Sassenberg and Meinerzhagen are the two biggest locations, and partly because aspects such as the standard of the buildings and the level of vertical integration influence energy consumption.

<sup>2</sup>Figure corrected subsequently

Energy consumption of the locations in GWh



important to technotrans to handle finite resources responsibly; as well as the raw materials needed for our products, these include especially the energy resources we use. In light of this, at the end of 2020 – as previously mentioned – we defined the sustainability targets for our energy consumption for the period up until 2025:

- Electricity: increasing the share from renewable resources to 100 %.
- Fuel consumption of the vehicle fleet: reducing the Group-wide fuel consumption by an average of 5 % annually

Electricity consumption

To make progress towards our target from the Future Ready 2025 strategy of using renewable energy for 100 % of our electricity in the very first year of implementing the strategy, we looked in great detail at ways of generating and sourcing renewable power.

In terms of where we source renewable power, we at technotrans want to bring on the energy transition. For that reason, we have decided not to include German electricity supported under the German Renewable Energies Act (EEG) in our attainment of the target, because the relevant facilities have been and will be built even without our efforts. The position is similar for certificates of origin (COO) for hydro power plants that have in some cases been running economically for decades and account for some 90 % of the total volume of decommissioned COOs in Germany. Conversely we will include COOs from other renewable energy producers, noting that former EEG plants that lose financial support after 20 years are an interesting option for supporting the continued operation of such wind and PV systems.

In line with this strategy, in 2021 technotrans obtained COOs for European wind farms for almost 40 % of our total electricity requirements at the production locations in Germany and the Taicang and Mt Prospect locations. The COOs we selected also include a levy for sustainable energy projects that would not have been realised without this form of support; this brings a further positive benefit for the climate by conserving energy or making use of renewable energies in poorer regions.



In addition, at technotrans we would like to cover part of our electricity consumption directly from renewable generating plants installed at the production locations. The renewable power from these self-constructed generating plants will count towards our target.

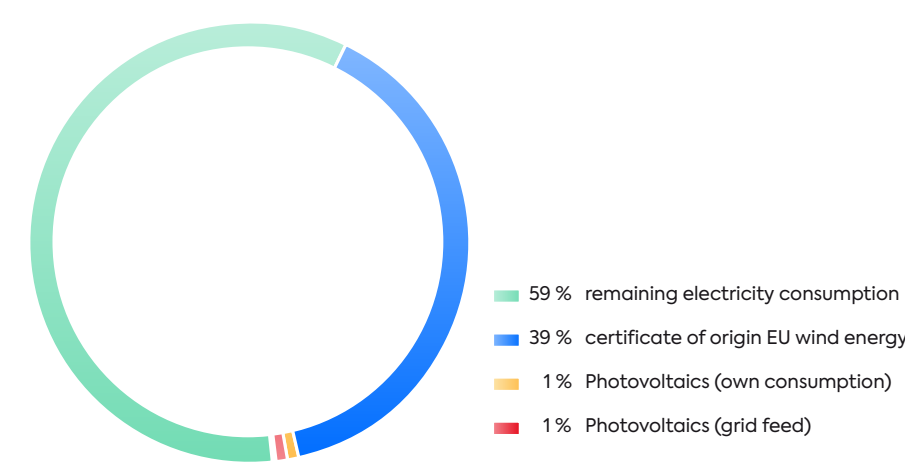
We have already installed an initial PV system with the construction of the new building at Holzwickede. The system has an output of 99 kWp and generates around 81 MWh of solar power annually. 50 % of the power it generated was used directly in situ in 2021, with the surplus fed into the local grid. The solar energy component for the location was therefore 40 % or, in terms of overall footprint after feeding into the grid, actually 80 %.

technotrans will install a second PV system in 2022 at Baden-Baden. The system will have a total output of around 400 kWp and will supply around 350 MWh of solar power per year with an internal consumption rate of approx. 75 %. This will enable us to cover approx. 35 % of the location's electricity requirements directly and also feed about 87 MWh of PV power into the local grid.

Looking to the future, we will investigate installing renewable power generators at other locations too and gradually realise such systems.

As matters stand, based on our target of using renewable energies for 100 % of our electricity requirements in line with the above definition, we have achieved the interim position illustrated below of 41 %. We will report regularly on our further progress in future Annual Reports.

Status of ESG target: 100 % renewable power



Fuel consumption

Another target defined at the end of 2020 in the context of the Future Ready 2025 strategy involves cutting the fuel consumption of the vehicle fleet by an average 5 % annually, with the result that it is reduced by at least 25 % by 2025. A high proportion of fuel consumption is currently by vehicles used for service and sales activities, but company cars also account for quite a significant proportion. In 2021 fuel consumption, of which diesel vehicles accounted for over 95 %, came to 385,442 litres with an energy content of 3.8 GWh.<sup>3</sup> Compared to 2020 as the defined base year for our target, we therefore achieved an 8 % reduction in fuel consumption. Since this outcome is substantially due to the effects of the coronavirus pandemic, for example as a result of increased working from home, we will adjust our car policy in future years to ensure we continue to achieve the target going forward. We will also continue to offer our employees scope to perform their jobs from home. To that end, we drew up and approved a Group agreement in the 2021 financial year according to which every employee may spend between zero and five days a week working from home depending on their role.

<sup>3</sup>Diesel: 9.96 kWh/l, petrol: 9.02 kWh/l

When revising the car policy, important aspects will include enabling electric mobility by providing the requisite infrastructure especially for company cars, as well as using increasingly economical diesel vehicles which, given the current state of the technology, remain indispensable for the time being in service and sales, for example, given the sometimes very long distances that need to be travelled. Over the coming years we will monitor market developments and gradually switch to sustainable drive wherever technically possible and economically justifiable.

Gas consumption

The use of natural gas at our locations is a further aspect that needs to be considered in the light of climate protection and the finite nature of fossil fuels. Gas consumption rose year on year by 7.4 % to 6.6 GWh, a rate of growth that was below the revenue growth of 10.8 %. A further consideration is that the mean annual temperature for 2020 (Germany) of 10.4 °C was 2.2 K above the long-term average, whereas 2021 was 0.9 K above the long-term average of 8.2 °C<sup>4</sup>. Specifically in the winter months, when the bulk of our gas consumption occurs, the long-term mean temperatures were exceeded by 4.2 K in 2020 and by 1.8 K in 2021, and on that basis a steeper rise in consumption for 2021 would have been expected. The reasons for the only slight rise include the modernisation of a boiler and ventilation system at the Sassenberg location.

Although this is already a positive trend, we would like to perform even better in the future and gradually reduce the use of fossil fuels through energy efficiency measures and the use of renewable energy at our locations. Especially the following aspects will be relevant in that regard:

- Whenever our heat supply facilities are due for modernisation, wherever possible we will make sure they use a high proportion of renewable energy.
- In addition, we will always look for potential efficiency savings from heat generation, distribution and storage in any maintenance, repair and conversion work.
- In any plans for new buildings and refurbishment projects we will use energy-efficient building methods or corresponding elements in refurbishment, as we did at our production locations in Baden-Baden and Holzwickede, both of which were constructed according to the KfW 55 standard.

By incorporating the above aspects we will steadily improve the energy efficiency of our locations over time and present progress in our annual reporting.

At the Meinerzhagen location, which has the highest specific energy consumption because of its higher vertical integration, we have moreover been implementing an energy management system according to DIN 50001 for a number of years now; this helps us to continuously improve our energy-related performance by providing a transparent overview of the main energy consumers.

Greenhouse gas balance

One important aspect that goes hand in hand with the use of fossil fuels and is of growing relevance for society as a whole and for us the technotrans Group is the CO<sub>2e</sub> emitted as a result of our economic activities. We, too, want to act responsibly and play our part in limiting climate change by creating transparency and, on that basis, reducing our share of anthropogenic CO<sub>2e</sub> emissions; we have already started to do this with our targets to reduce fuel consumption and switch to renewable power, for example.

To continue to be able to take targeted action in the future, we will need to know how far our economic activity causes CO<sub>2e</sub> emissions and what the main sources of these are. To create this vital knowledge base, in 2021 technotrans calculated its corporate carbon footprint for 2020 for the first time in partnership with the company First Climate. The focus of this analysis was still on CO<sub>2e</sub> emissions that we can influence directly, from Scopes 1 and 2 as defined in the GHG protocol. Put simply, Scope 1 covers all direct CO<sub>2e</sub> emissions that occur internally within the company, for

<sup>4</sup>Internationally valid reference period from 1961-1990

example from the use of fuels, while Scope 2 covers the indirect CO<sub>2e</sub> emissions that occur as a result of taking energy from a utility company over the grid. At technotrans, the relevant aspects resulting from this are gas and fuel consumption (Scope 1) and purchased electricity (Scope 2). We wish to provide regular information on these aspects starting with the Annual Report 2021, to create transparency and present our progress.

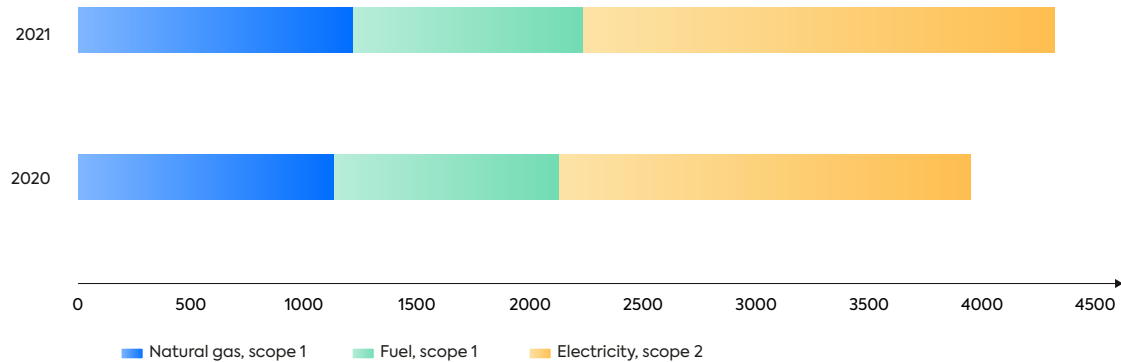
We have also started to record indirect emissions from Scope 3). However this scope is very extensive and includes all indirect CO<sub>2e</sub> emissions that arise in the upstream and downstream value chain, during product use and from the recycling or disposal of our products. Because of its scale and the much greater difficulty in calculating reliable data compared to the first two scopes, we have decided first to create a reliable data basis over the next few years before we also start reporting on these indirect CO<sub>2e</sub> emissions.

In the Group-wide calculation of the corporate carbon footprint for 2020, the Sassenberg, Meinerzhagen, Bad Doberan, Holzwickede, Baden-Baden, Taicang and Mt Prospect locations were responsible for over 94 % of total Scope 1 and Scope 2 emissions; the following comments therefore refer to those locations, applying the principle of materiality.

In terms of Scope 1, our consumption of natural gas and fuel at our locations caused 2,232 t of CO<sub>2e</sub> emissions in 2021. In a location-based view pursuant to the GHG Protocol, in other words taking into consideration the CO<sub>2e</sub> emission factors for the electricity mix in Germany (424 kg/MWh), at Taicang (598 kg/MWh) and at Mt Prospect (484 kg/MWh), the greater part of CO<sub>2e</sub> emissions arose from procured electricity. In this view, 2,088 t CO<sub>2e</sub> were emitted in Scope 2 in 2021, representing 48 % of total emissions under both scopes. The next-largest share of 1,215 t CO<sub>2e</sub> or 28 % was caused by consumption of natural gas for the heating supply at our locations, followed by the CO<sub>2e</sub> emissions from fuel consumption totalling 1,018 t CO<sub>2e</sub> or 24 %. Overall CO<sub>2e</sub> emissions compared to the previous year rose by 9.5 % or 375 t to 4,320 t, a development that is attributable to higher gas consumption and the poorer emission factor for the German electricity mix in 2021<sup>5</sup>.

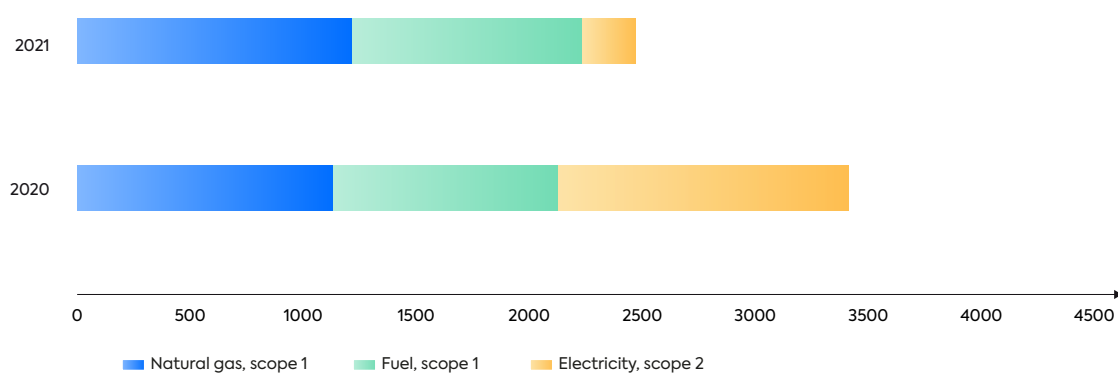
Here at technotrans we have decided to purchase certificates of origin, as explained above, and we purchase a high proportion of renewable energy under our electricity supply contracts; this breakdown therefore changes considerably in a market-based view. From purchases of electricity this leaves merely the emissions from the Taicang and Mt Prospect locations of 235 t CO<sub>2e</sub>, for which no contract-specific emission factors are available. This amounts to 10 % of the total remaining CO<sub>2e</sub> emissions. Natural gas and fuels, which indicate no change in emissions under the market-based view, are responsible for 49 % and 41 % of CO<sub>2e</sub> emissions respectively.

Comparison of CO<sub>2e</sub> emissions in t, location-based



<sup>5</sup>Emission factor for electricity mix DE in 2020: 366 kg CO<sub>2e</sub>/MWh

Comparison of CO<sub>2e</sub> emissions in t, market-based



It is not possible to draw a direct comparison of emissions with the figures in the previous Annual Report because the two locations in China and the United States were not yet included, and the 2020 emission factor for the electricity mix in Germany has been adjusted to the current estimate.

EU Taxonomy Regulation 2020/852

In December 2019 the European Commission unveiled the European Green Deal, which pursues the goal of cutting net greenhouse gas emissions in the European Union to zero by 2050. A major instrument of achieving that goal is the EU Taxonomy, which is based on the conviction of EU member states that steering funding towards sustainable investment is a major lever in achieving climate targets.

The EU Taxonomy is structured as a classification system with uniform definitions of environmentally sustainable business activities. Its goal is to classify economic activities 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.

Against the backdrop of climate change, the destruction of natural habitats and dwindling biodiversity, technotrans unreservedly supports these efforts by the European Commission.

Pursuant to Article 8 of the EU Taxonomy Regulation, technotrans reports indicators on the proportion of environmentally sustainable business activities in its revenue, operating expenses (OpEx) and capital expenditure (CapEx) for the first time for the 2021 financial year.

With the first-time adoption of the EU Taxonomy Regulation this year, for ease of reporting we report on environmentally sustainable business activities that make a material contribution to the first two environmental objectives climate change mitigation and climate change adaptation and are taxonomy-eligible. Taxonomy-eligible means that the environmentally sustainable activities are described in the Annex to the EU Taxonomy Regulation.

To calculate the three indicators, the environmentally sustainable economic activities carried out were identified from the Annexes to the EU Taxonomy Regulation and the taxonomy eligibility of those activities for the above two environmental objectives was evaluated.

Whereas the economic activities of many greenhouse-gas-intensive industries are explicitly mentioned in the EU Taxonomy and specific, practical requirements have been defined for subsequent years, unfortunately many businesses in the mechanical and plant engineering sector, for example, are given scant consideration. That is the case for technotrans as a technology and services group focusing on application-specific solutions in the area of liquid and thermal management. technotrans products find their way into downstream economic sectors in the



form of enabling technologies; our systems for thermal management of battery packs in electric mobility are one such example. technotrans thus to some extent covers the economic activities identified.

With regard to revenue, technotrans has therefore decided to include in its reporting those economic activities as listed in the EU Taxonomy that incorporate our products as an indispensable component. All the following disclosures on taxonomy-eligible revenue, CapEx and OpEx refer to environmental objective (1) climate change mitigation; double reporting is therefore ruled out.

Taxonomy-eligible revenue, operating expenses and capital expenditure pursuant to EU Taxonomy Regulation

		Revenue	Operating Expenses	Capital Expenditure
Total	M€	211,1	7,4	4,9
of which taxonomy-eligible acc. to Art. 8 EU Taxonomy Regulation	M€	13,4	0,6	0,6
Share	%	6,4	8,6	12,2

**Proportion of taxonomy-eligible revenue** – The basis for the revenue to be analysed (€ 211.1 million) is the revenue as explained in the Consolidated Financial Statements of technotrans in the Annual Report 2021, especially under V. Notes to the Segment Report. An internal work group analysed the economic activities described in the Annex to the EU Taxonomy Regulation and identified seven relevant economic activities to which technotrans activities can be allocated. A material influence of our activities on the economic activities described in the Taxonomy Regulation was evaluated using the question of whether the economic activity – such as the manufacture of low-CO<sub>2e</sub> transport technologies – would be functional without the component supplied by technotrans (e.g. thermal management system for battery packs). If functionality can only be assured with our products, they are assumed to make a material contribution to the primary economic activity, in this example the manufacture of low-CO<sub>2e</sub> transport technologies. Together with the managing directors of the locations, the Technical, Development and Sales departments and the Board of Management, we established which products or product-specific revenue share can be allocated to the seven economic activities from the Taxonomy Regulation in order to calculate the taxonomy-eligible revenue from each of these.

The taxonomy-eligible revenue at technotrans is allocable to the product range for cooling and temperature control solutions; the numbering from the Annex to the EU Taxonomy Regulation is used in the following. The taxonomy-eligible product solutions are cooling units for transformer stations of off-shore and on-shore wind farms (3.1), temperature control systems for battery systems in battery electric rail vehicles and buses (3.2) and cooling solutions for laser tools used in electrode welding for battery production (3.4). In addition, technotrans supplies a number of highly efficient product variants for cooling and temperature control involving power-regulated compressors, pumps and fans, which produce significant efficiency gains and therefore CO<sub>2e</sub> savings compared to the basic products for each area of application (3.6). technotrans has equally planned and sold various refrigeration systems that use the waste heat given off during refrigeration for such purposes as space heating, hot drinking water supply or process heat supply (4.25). It also supplies various temperature control solutions for the charging infrastructure for battery electric vehicles (6.13) and systems for cooling rail inverter stations (6.14).

**Proportion of taxonomy-eligible operating expenses (OpEx)** – In terms of OpEx, in accordance with the recommendations of the ESMA (European Securities and Markets Authority) only the following potentially relevant operating expenses were included: operating expenses for maintenance and repair (incl. building renovation measures and maintenance of property, plant and equipment), research and development costs as well as expenses for short-term leases, provided the activities contribute to the two environmental objectives climate change mitigation

and climate change adaptation. The maintenance and repair costs and lease expenses from some areas of distribution costs and administrative expenses in the Income Statement are calculated as the basis for determining operating expenses under the EU Taxonomy. No direct reference to the Income Statement of the Annual Report 2021 is therefore possible.

Taxonomy-eligible expenses include spending on an LED lighting concept to upgrade the lighting system for the production line that previously used fluorescent tubes (7.3). This area also includes the leasing of an electric vehicle for employees to test in the course of their business activities, to overcome any reservations regarding electric mobility (6.3). In the Research and Development area (see Notes to the Consolidated Financial Statements under III of the Annual Report. Notes to the Balance Sheet; 4. Intangible Assets. € 5 million in development costs were taken as the basis for analysing taxonomy eligibility) various projects were processed, and in some cases completed in the 2021 financial year, in connection with new, ultra-efficient product lines that are allocable to the area of the development of solutions for battery electric bus and rail transport or come under the area of electric truck transport and therefore all contribute towards reducing greenhouse gas emissions (9.1). Also, various R&D projects for the energy optimisation of existing products were carried out; the products' lower energy consumption reduces greenhouse gases over the life cycle. For example, customer-specific cooling solutions were developed for the charging infrastructure for road transport, development work was carried out on solid-state cooling systems and the integration of solar thermal systems into adsorption chillers was investigated (9.1).

**Proportion of taxonomy-eligible capital expenditure (CapEx)** – The basis of the economic activities to be analysed under capital expenditure comprises additions to both property, plant and equipment and to intangible assets in the amount of € 4.9 million (see also III. Notes to the Balance Sheet of the Annual Report 2020/21, Consolidated Statement of Changes in Fixed Assets). The taxonomy-eligible investment includes primarily capital expenditure on a newly erected KfW 55 building at the Holzwickede production location (7.1). In 2021 technotrans also invested in the installation of a PV system with 99 kW peak power (kWp) (7.6). Furthermore, we invested in high-efficiency supply systems for the compressed air supply and for air-conditioning buildings at our production locations (7.3).

**Concluding note** – In the absence of any final, generally accepted international standards to date on reporting in line with EU Taxonomy and of corresponding methods of identifying the economic activities concerned, the disclosures in future years may differ potentially substantially from those provided here once the final regulations have appeared and been adopted.

Highlights of 2021 and outlook

**UN Global Compact** – In December 2021 we joined the UN Global Compact, the world's largest and most important initiative on ethical and responsible corporate governance, in a reaffirmation of our commitment to sustainability and human rights. technotrans has already been supporting the ten principles on human rights, labour standards, environmental protection and anti-corruption measures for many years, but now does so with international visibility. We will report annually on our progress with the principles.

**Corporate carbon footprint** – technotrans considered how to calculate its corporate carbon footprint for 2020 at great length in the past year. The focus was previously on the CO<sub>2e</sub> emissions from Scopes 1 and 2, which were therefore also incorporated into the Annual Report for the first time in the form of the data for 2021. We will systematically continue with this reporting in future years. In addition, we were already able to obtain initial findings with regard to Scope 3 and will work on improving the corresponding data available, in anticipation of also being able to include Scope 3 emissions in reporting.

**Photovoltaic systems** – technotrans installed a first PV system at the Holzwickede location in the 2021 financial year; with an output of 99 kWp and an annual yield of 81 MWh, it covers 80 % of its overall local electricity requirements. The internal consumption rate for the system is 41 MWh, or 50 %.

At our location in Baden-Baden, we already embarked on the installation of a second approx. 400 kWp PV system at the end of 2021; once completed, it will supply around 350 MWh of renewable power annually with an internal consumption rate of 75 %. We will be able to cover around 45 % of our overall consumption there. We will also investigate installing renewable energy generating plants at the other locations over the coming years and gradually realise them.

**Renewable power** – technotrans has taken its first major step towards achieving the target of 100 % renewable power by 2025. By purchasing certificates of origin for European wind power and thanks to our PV system, we already achieved 41 % of our target from the Future Ready 2025 strategy in 2021. We will steadily increase the proportion of renewable power by sourcing renewable power and generating renewable power internally at our own locations.

**Energy-efficient buildings** – For technotrans, energy efficiency is also a key decision-making criterion when building new locations. Following on from our Baden-Baden location, which was designed to KfW 55 standard, we have now also built a second new location. This production building at the Holzwickede location likewise meets the tough energy efficiency requirements of the KfW 55 standard and went into operation in the first quarter of 2021. The various measures needed to satisfy the tough requirements of this efficient building standard included a central ventilation system with heat recovery and a heat pump to supply heat in combination with panel heating systems in the hall. A gas condensing boiler covers peaks in demand.

**Use of hydrogen** – In the first half of 2022 we will moreover complete all the preparatory building work at the Holzwickede location to be able to run the peak load boiler on pure hydrogen, instead of on natural gas as previously. It will be made possible for example because the local grid operator Westnetz GmbH will convert its existing natural gas pipeline to pure hydrogen under the “H2HoWi” research project, in order to test the storage capability of upgraded natural gas pipelines and enable customers to use renewable gases. This is an important element of the energy transition because with the spread of wind power and photovoltaic systems, it will become increasingly necessary to convert surplus renewable power into hydrogen and other renewable gases, and then store these.

**Natural refrigerants** – For lower cooling performances of up to 3.5 kW, in 2022 technotrans will switch largely to natural refrigerants, which exhibit a very low GWP so that even in the unlikely event that the refrigerants escape into the atmosphere from our products’ hermetically tight circuits, they would cause only very low CO<sub>2e</sub> emissions. This represents a further move in our strategic initiative to use natural refrigerants. To pave the way for the production changeover, we will invest in a further filling plant for natural refrigerants at the Baden-Baden location in the second quarter of 2022.

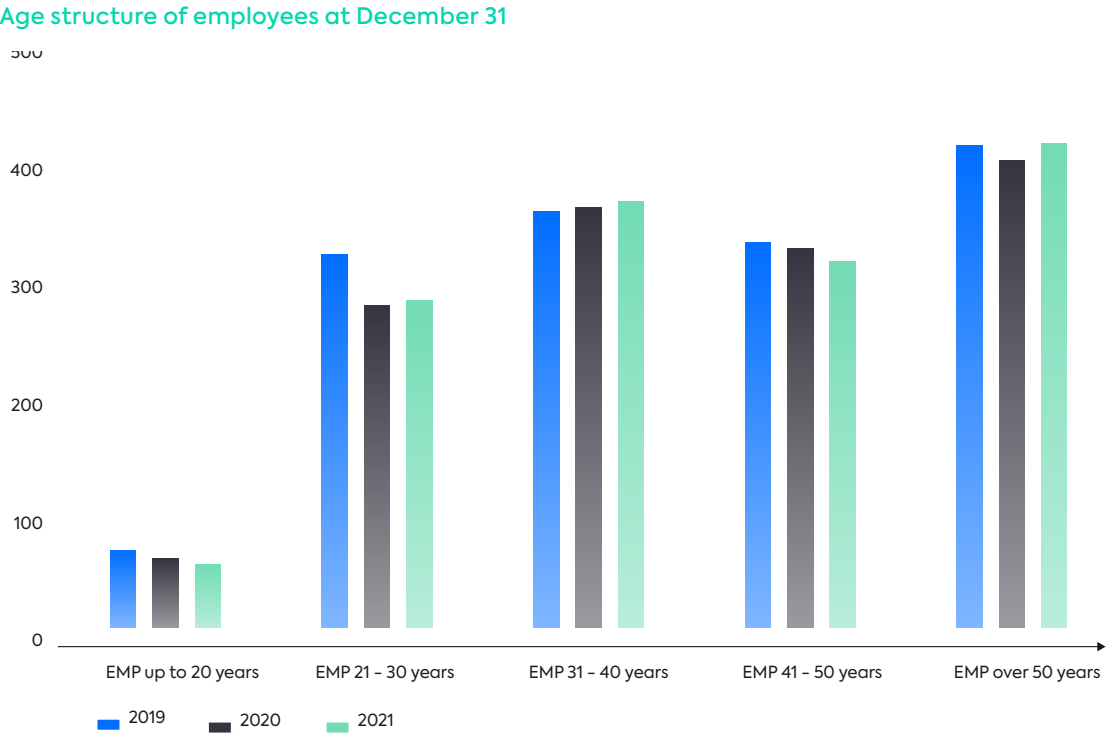
**Sustainability Management** – technotrans created this new area in 2021 and recruited the personnel at the start of the fourth quarter. From now on, we will be in a position to identify and implement energy efficiency measures even more intensively and purposefully, and to work on methods of generating renewable energies in order to reach our target of gradually reducing the CO<sub>2e</sub> emissions caused by ourselves. In addition, the newly created area will make it possible to regularly record and process our CO<sub>2e</sub> emissions for transparent reporting.

# EMPLOYEE MATTERS, TRAINING AND QUALIFICATION

Committed employees with outstanding personal and professional skills are the bedrock of our success. Changes to structures or processes create the risk that employees and their expertise could be lost if they are unable to identify with the measures taken and therefore feel prompted to look elsewhere. To limit personnel turnover, in addition to selecting personnel with care we believe it is very important to specifically promote our employees and provide them with appropriate further training. We attach high importance especially to improving personal and specialist skills, and to maintaining the professional capabilities of our specialists and managers over the long term. Only by offering our employees suitable prospects and by modelling a positive corporate culture can we be sure we will continue to evolve as an organisation and be perceived as an attractive employer by our employees.

We have been treating vocational training as a high priority for many years and therefore make a particular effort across the entire Group to provide training for juniors. We consider this on the one hand as a social responsibility that we are glad to honour. On the other hand training juniors represents an important investment in the future of our business. Apprentices and those on a dual course of study make an important contribution to the further development of our technology company, both as individuals and as specialists.

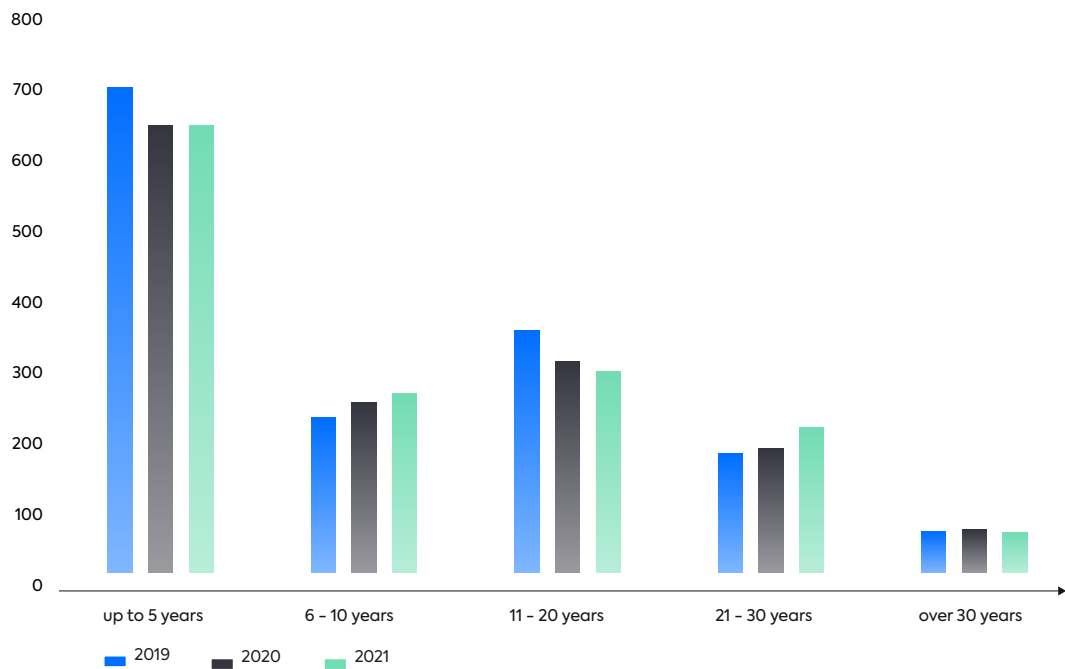
The employee structure of the technotrans Group by age has developed as follows: :



technotrans offers its employees long-term prospects. We are delighted that growing numbers of employees stay with the Group long-term after joining technotrans.



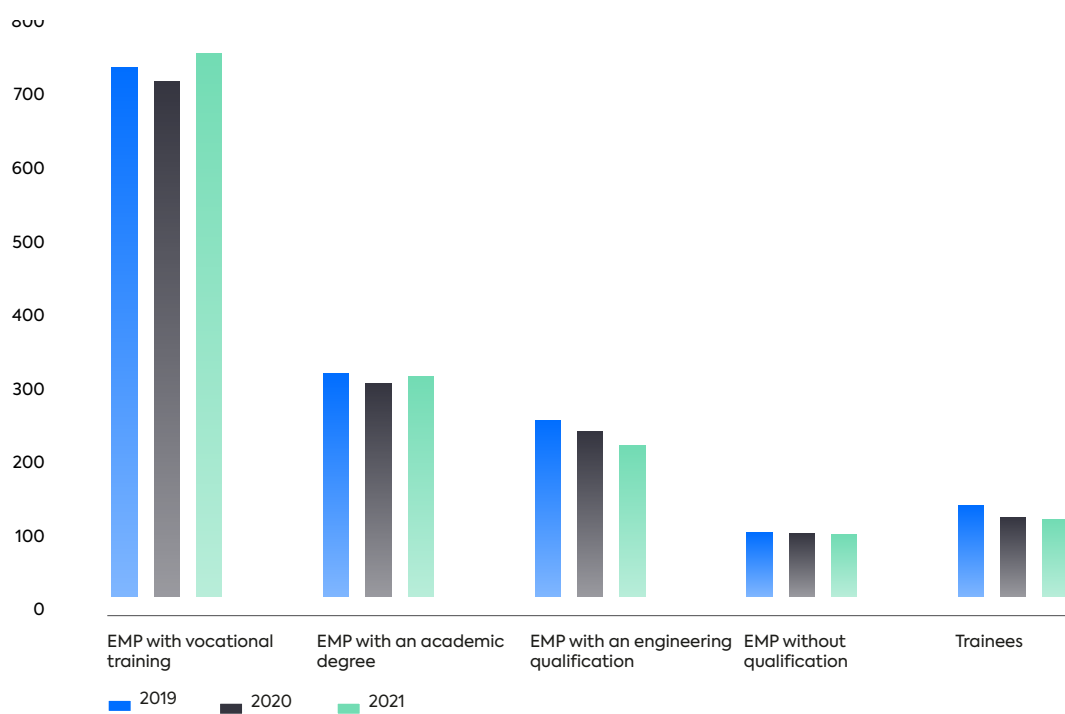
Length of service of employees at December 31



Demographic change in society and the increasing shortage of skilled workers are major challenges in this regard. We tackle potential negative consequences for the technotrans Group in the form of unfilled positions, for instance, by maintaining a correspondingly high proportion of apprentices.

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.

Employees by qualification at December 31



At December 31, 2021 the number of apprentices in the Group was 104 (previous year: 109). Of these, 43 were in apprenticeships at technotrans SE (previous year: 45). The proportion of apprentices at the German group companies was therefore around 7 %. The figure for technotrans SE is slightly higher at 9 %. In the 2021 financial year, the technotrans Group provided apprenticeships for 19 vocational qualifications and five dual courses of study. In offering these we proactively meet the diverse specialist requirements of our markets.

We prepare our apprentices optimally for their future tasks: our production companies have their own training workshops, with for example a specially equipped electrics training room for apprentices, and apprentices attend in-house instruction and training courses in various departments. Our instructors, too, receive regular advanced training.

In the 2021 financial year, 30 apprentices successfully completed their training at our domestic companies. We offered almost all apprentices a permanent position. 25 of them took up the offer. The retention rate is therefore around 83 %. The remainder opted to pursue a course of studies or continue with their school education. We offer these former apprentices the opportunity to work for us out of term. By maintaining contact with them, we aim to be in a good position to take them on again after they have completed their further studies.

Collaboration within the technotrans Group is growing in importance, not least through the Future Ready 2025 strategy. To encourage specialist and personal exchanges, our apprentices can take on assignments at more than one location.

To promote personnel development and responsively keep our employees' qualifications in line with the gradually shifting requirements, we held a large number of training courses and advancement measures in the 2021 financial year. Because of the pandemic, as in the previous year these mainly adopted a virtual format. We call on both internal experts from the departments and external trainers for these courses. Our aim is always to maintain up-to-date specialist knowledge spanning a wide range of topics right across the Group.

Employees discuss their qualification needs with their managers in annual performance reviews. Human Resources is brought in if more comprehensive, cost-intensive measures are called for. The aim of these meetings is to customise continuing training to the needs of each employee.

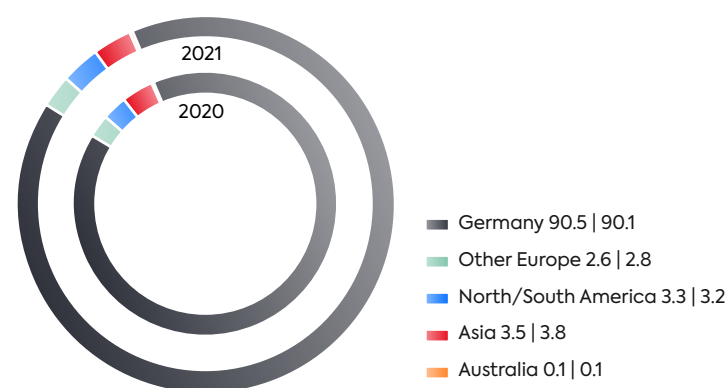
In addition, leadership circles involving Human Resources and each head of department are arranged each year. Their purpose is to identify what personnel development measures are required in each area.

Based on the budget, it is agreed what measures will be implemented in the current year in what order of priority. The measures taken are then assessed at the next evaluation.

technotrans SE has set up all personnel development activities in the form of a structured online training catalogue known internally as the technotrans Campus. It is being rolled out gradually across the Group. Personnel development is a component of the Future Ready 2025 strategy. One of the five ESG targets specifies an annual increase in personnel development spending of 5 % p.a. We easily exceeded the target in the 2021 financial year with an increase of around 18 % compared with the base-year figure.

The regional composition of our workforce has not changed significantly 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, 2021/2020 (%)



The employee structure of technotrans SE is as follows

## Employee structure of technotrans SE

	2021		2020		2019	
	Number	in %	Number	in %	Number	in %
Employees at year end	489		484		511	0
Employees by segment						
Technology	380	77.71	379	78.31	402	78.67
Services	109	22.29	105	21.69	109	21.33
Age structure						
Employees up to 20 years	26	5.32	26	5.37	28	5.48
Employees 21 to 30 years	113	23.11	113	23.35	117	22.90
Employees 31 to 40 years	94	19.22	88	18.18	89	17.42
Employees 41 to 50 years	105	21.47	112	23.14	127	24.85
Employees over 50 years	151	30.88	145	29.96	150	29.35
Period of employment						
up to 5 years	196	40.08	191	39.46	211	41.29
6-10 years	72	14.72	68	14.05	50	9.78
11-20 years	100	20.45	116	23.97	161	31.51
21-30 years	105	21.47	94	19.42	78	15.26
over 30 years	16	3.27	15	3.10	11	2.15
Employees by qualifications						
Employees with vocational training	256	52.35	248	51.24	262	51.27
Employees with an academic degree	92	18.81	82	16.94	81	15.85
Employees with an engineering qualification	78	15.95	88	18.18	94	18.40
Employees without qualification	20	4.09	21	4.34	24	4.70
Trainees	43	8.79	45	9.30	50	9.78
Diversity						
Number of male employees	386	78.94	383	79.13	404	79.06
Numer of female/diverse employees	103	21.06	101	20.87	107	20.94

## Health management

Keeping our employees in good health and encouraging them to live healthily are a major priority for us. Our active health management is about ensuring employees remain able to perform effectively so that we can maintain a smooth production process.

In the second year of the pandemic, protecting our employees against infection remained our overriding concern. The preventive measures introduced across the Group in the previous year were maintained. These included working from home, which we have now introduced as a standard option for employees who have the facilities to work from home. This offer was gladly taken up: at its peak, 45 % of our employees were working from home during the financial year. This represents an increase of 10 percentage points on the previous year.

The occupational health service conducted regular health reviews as part of the check-ups required by law. technotrans also offered its employees free flu vaccinations, support with arranging coronavirus vaccinations, employer-financed supplementary dental insurance and leasing of bikes for employees. Employees also receive special deals at selected local gyms and can take part in company runs. These schemes mean technotrans both promotes health and encourages social interaction between employees.

## Remuneration and employee rights

Employees are paid for their work at market rates, with the amount comprising fixed and variable components. In recent years we have introduced a standardised remuneration system at the main location in Sassenberg and at other German locations. Under this system, employees are assigned to grades depending on their position; each grade corresponds to a specific, market-oriented remuneration band. Remuneration is also affected by the degree to which the targets agreed at the start of the year have been achieved.

Managers receive a (management) bonus that is agreed individually in their contracts and is determined half by the attainment of company targets, and half by their personal performance. At the domestic companies, annual percentage pay increases for all employees are negotiated between the Board of Management, the executive management (in the case of subsidiaries) and the respective Works Council. The past and expected business performance of the technotrans Group serves as the basis. There were moderate remuneration adjustments in the 2021 financial year based on location-specific agreements and factors.

We also offer our employees various fringe benefits. These reflect the prevailing local and statutory considerations and scope. The range of benefits therefore varies from one location to another.

technotrans products are shining examples of high quality and operator safety. We also aim to make the workplace as safe as possible for our own employees. It is consequently 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 advise our management employees on hazard assessments at each location with the aim of guaranteeing that workplaces are at all times safe, healthy and state-of-the-art. Also, managers are responsible for ensuring that employees comply with the relevant provisions. Every employee receives instruction on the guidelines in the form of training that is repeated regularly.

Premises and manufacturing processes at our production locations are by their very nature diverse. In a reflection of that, we have implemented individual safety concepts. These ensure that the applicable statutory requirements are always met. The arrangements include quarterly meetings of the industrial safety committee with the occupational safety officer, the medical officer, a Works Council delegation, the safety officers and a representative of the company management.



To share insights, we for example hold scheduled and/or impromptu site inspections or meetings with first responders and with fire and safety officers. The aim here is to spot and address potential hazards early on. The overall low number of occupational accidents in the Group demonstrates just how effective these concepts are.

The members of the Group Works Council meet regularly to 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 nine members from the (domestic) 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 and diversity

At technotrans we attach high importance to the personal and specialist qualifications of our employees. It is inherent to the corporate culture of our Group that we do not tolerate discrimination of any kind against persons based in particular on age, nationality, skin colour, gender, religion, social background or disability. We adopt a zero-tolerance stance towards misconduct at the workplace on such matters. Human resources decisions such as appointments, promotions, remuneration, dismissals etc. are reached in accordance with these principles. For example, there is no gender-based differentiation in remuneration (zero gender pay gap). We value the differences and diverse qualities in our employees. Open, fair and respectful treatment of one another is a hallmark of our corporate culture. These principles are enshrined in our worldwide Code of Conduct and are practised in our daily dealings. For example, we give fellow humans who have been displaced from their home country the chance to get to know everyday working life in Germany.

Studies have shown that cultural diversity in teams can have a bigger positive impact on innovative capability than other criteria such as age or gender.

For technotrans as a company that is active in dynamic markets by virtue of its international locations, innovation and creativity are crucial to success. At our Sassenberg head office alone, we employ people of 13 different nationalities. Across the Group there are 36 nationalities. We see this diversity as an asset for the technotrans Group. With optimally diversified teams, we aim to specifically increase the company's innovativeness. Our approach is backed up by clear positive findings in the Group. The ability to consider matters from culturally diverse vantage points is a vital starting point for developing individual, flexible solutions for our customers.

One important priority for activities in the area of diversity is to achieve an appropriate proportion of female managers in the first and second management tiers. The proportion at the end of the year under review was 11.4 %.

The proportion of women in the workforce as a whole was 20.2 percent across the Group at December 31, 2021, representing no change from the previous year. In the Future Ready 2025 strategy we have specified that the minimum figure of 20 % is to be reached at Group level at every balance sheet date.

technotrans considers itself to be a family-friendly employer. We provide our employees with various options for balancing the demands of working and private life. These include flexible working hours models, such as flexitime and a variety of part-time models. We therefore make it easier for our employees to resume their career during and after a period of parental leave. Around 33 % of all women across the group take up the opportunity to work part-time.

technotrans has teamed up with a municipal day care centre to provide childcare at the Sassenberg location.

Only with satisfied, motivated employees will we be able to secure the long-term business success of the Group. Open, amicable and fair communication between management and workforce as well as between employees is firmly embedded in our corporate culture. Our entire human resources work is geared towards promoting this culture and further increasing the attractiveness of the technotrans Group as an employer. Our ultimate goal here is to ensure that the company always has a sufficient number of specialists.

If an employee hands in their notice, we hold an exit interview, for instance. This measure is designed to help us identify the reasons for employee turnover. The fluctuation rate for the Group was low in the 2021 financial year. At December 31, 2021 there were 1,433 (previous year: 1,409) employees in the technotrans Group. This represents a rise of 1.7 % compared with the previous year. The total for technotrans SE at the balance sheet date was 489 (previous year: 484) employees. The rise year on year was 1.0 %.

## 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. Compliance with data protection requirements is a cornerstone of interaction with our employees and business partners. It goes without saying that our IT systems are fully compliant in that respect. The General Data Protection Regulation (GDPR) is also implemented, for example. 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 also display a social conscience. Since 2011, we have been actively supporting the charity Friedensdorf International (Aktion Friedensdorf e.V.) This charity supports children from war-torn and crisis zones with medical and psychological help, education, projects and relief supplies. As such, it gives the children it helps new prospects and we believe it performs meaningful, constructive work that brings long-term benefit.

We also get involved in local projects and initiatives at our locations, such as by donating tt.air purifiers to local institutions or through the participation of our apprentices in Social Day 2021. Such ventures emphasise our strong ties with the regions in which we want to conduct business operations over the long term. The priorities of our social engagement vary from location to location, and comprise both strategic partnerships and individual employee projects. Our social commitment activities are handled regionally in consultation with Group HQ.

technotrans makes a consistent effort to attract new employees from the regions in which we have a local presence. In cooperation with federations and regional schools and colleges, we organise regular events to promote juniors in technical disciplines or give them guidance in their career choices. We promote interest in MINT subjects (mathematics, information technology, natural sciences and technology) through a large number of initiatives and projects. We have developed some of them, such as the Girls' Day, into regular events at the Group. In addition, we offer approved student internships to young people as an opportunity to get to know the world of work. We regularly arrange these vocational orientation residencies in the school holidays. The same approach is taken to vocational fact-finding days, where school students can get to know the broad spectrum of vocational qualifications available within the technotrans Group. The continuing restrictions due to the coronavirus meant we were unable to hold activities on the same scale as in previous years in 2021. We would like to resume the previous frequency as soon as circumstances permit.

## RESPECT FOR HUMAN RIGHTS

Equal opportunities, equal rights, fairness as well as mutual acceptance and tolerance are the hallmarks of the technotrans Group's corporate culture. We appreciate diversity and differences both within our organisation and among our business partners. technotrans pursues the goal of seeing all employees operate in conformity with internationally recognised human rights as well as with the principal labour and social standards.

In pursuit of that goal, we uphold the protection of human rights, advocate compliance with labour standards and emphatically reject child and forced labour. With our membership of the UN Global Compact (UNGC) and the enshrining of the UNGC principles in the technotrans Code of Conduct, these rules acquire binding character for all technotrans employees worldwide. The local management of each entity is responsible for implementing national standards. Compliance is checked regularly. All Group-wide principles with regard to labour standards and human rights were upheld in the 2021 financial year.

Nor do we tolerate human rights abuses by our service providers and suppliers. New suppliers of technotrans SE are put through a standardised clearance process and are only entered in our system as a supplier if they achieve a positive rating. Important assessment criteria include acceptance and observance of the compliance code for technotrans suppliers, compliance with the applicable working conditions and social standards (exclusion of child and forced labour, discrimination) and compliance with environmental protection requirements. The subsidiaries have implemented comparable clearance processes. There are correspondingly uniform criteria underpinning all purchasing processes throughout the Group.

However the high number of suppliers and sub-suppliers means we have only limited scope to supervise or scrutinise the early stage of the supply chain and the process steps associated with it. Because no contractual relationship exists between technotrans and suppliers further upstream, we only indirectly have any legal basis for intervening. 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 goal remains to create transparency and conformity along the entire supply chain.

Compliance with adequate environmental standards and implementation of occupational safety measures at our suppliers are regularly determined and documented in the form of on-site supplier audits.



# COMBATING OF CORRUPTION AND BRIBERY

Relationships with all business partners are based on quality, reliability, competitive prices and observance of ecological and social standards. Compliance with these standards by all employees is the basis of technotrans' excellent reputation in procurement and sales markets. It is pivotal to our ability to consistently acquire new customers.

To protect the technotrans Group against potential losses, we maintain transparency and implement internal control mechanisms. Compliance with our anti-corruption guideline – valid company-wide and forming part of the standard technotrans compliance management system – plays a special role in this. Every employee is obliged to notify their manager directly 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.

Unusual contractual provisions and special blanket agreements must fundamentally be cleared by the Legal & Compliance department and documented. Internal training courses are held to provide instruction on how to recognise and meet these and other compliance requirements, which are tested on a random basis. This is our way of preventively tackling the issue of corruption. 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 2021 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 fully in line with the current statutory EU regulations.

Immediately after joining, on their first day at work, all new employees across the Group are familiarised in-depth with the regulations that need to be observed. This upholds integrity and compliance with the law throughout the Group at all times and without restriction.

# OVERVIEW OF ESG KPIS

We have already made progress towards the five targets defined under the Future Ready 2025 corporate strategy: of the target to meet 100 % of electricity requirements with renewable energy, we have now reached a rate of 41 %. Our fuel consumption in 2021 was down 8 % on the base year, thus meeting our target of 5 % per year. At two of our seven relevant locations – Baden-Baden and Sassenberg – we have already switched packaging and padding materials to single-grade-recyclable materials in over 90 % of instances. We kept the proportion of our female and diverse employees steady at 20.2 %, above our target level of 20 %. We easily exceeded our target of increasing personnel development spending by 5 % annually with an increase of 18 % on the base year, already taking us close to our target for 2025. For the targets for reducing fuel requirements as well as for personnel development, 2019 was taken as the base year to exclude pandemic-related effects on the target figure.

Overview of selected sustainability key figures

	Indicator	EFFAS Indicator	Unit	2020	2021	Change from prior year
Environment	Consumption of resources*					
	Total energy consumption	E01-01	MWh	14,662	15,243	4 %
	Gas consumption		MWh	6,129	6,581	7 %
	Fuel consumption		MWh	3,732	3,827	3 %
	Power consumption		MWh	4,801	4,835	1 %
	GoO „EU-Wind power“		MWh	0	1,900	
	PV-power, self-consumption		MWh	0	41	
	PV-power, excess power feed		MWh	0	41	
	CO <sub>2e</sub> -emissions scope 1 und 2 (location-based)	E02-01	t CO <sub>2e</sub>	3,945	4,320	9 %
	CO <sub>2e</sub> -emission factors, grid-average GER		kg/MWh	366	424	16 %
	CO <sub>2e</sub> -emissions scope 1 und 2 (market-based)		t CO <sub>2e</sub>	3,413	2,468	-28 %
	average greenhouse gas potential of refrigerants**		GWP	929	933	0 %
	Waste, total weight	E04-01	t	802	893	11 %
	Water consumption		m <sup>3</sup>	12,195	8,884	-27 %
Human	Operational life of products					
			Jahre	> 15	> 15	
	Recycling					
	Recyclability of products		%	> 95	> 95	
	Employee structure					
	Age structure	S03-01				
	up to 20 years		FTE	2	3	50 %
	21-30 years		FTE	238	223	-6 %
	31-40 years		FTE	340	346	2 %
	41-50 years		FTE	314	294	-6 %
	from 51 years		FTE	369	380	3 %
	Female/diverse employees in the Group					
	Share of workforce (FTE)	S10-01	%	18.4	18.5	
	Female managers in the Group (first and second management level)		%	12.4	11.4	
Process	Trainees in the Group		Anzahl	109	104	
	Fluctuation		%	5	7.6	
	Employee health					
	Sickness rate as a percentage of total working hours		%	5.8	5.9	
	Employee qualification					
	Employees in the Group who have received the tech-notrans Code of Conduct		%	100	100	
	Qualification, education and training***	S02-02	€/FTE	250	332	33 %
	Supply chain					
	Percentage of suppliers assessed for compliance with ESG criteria	S06-01	%	100	100	
	Percentage of suppliers audited for compliance with ESG criteria	S06-02	%	100	100	
Social	Payments to political parties	G01-01	%	0	0	
	Penalties for anti-competitive practices	V01-01	€	0	0	

\* Production facilities Germany (Sassenberg, Meinerzhagen, Baden-Baden, Bad Doberan, Holzwickede), Taicang and Mt. Prospect  
\*\* Production facilities Germany (Sassenberg, Meinerzhagen, Baden-Baden, Bad Doberan, Holzwickede)  
\*\*\* Adjusted value for 2020

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