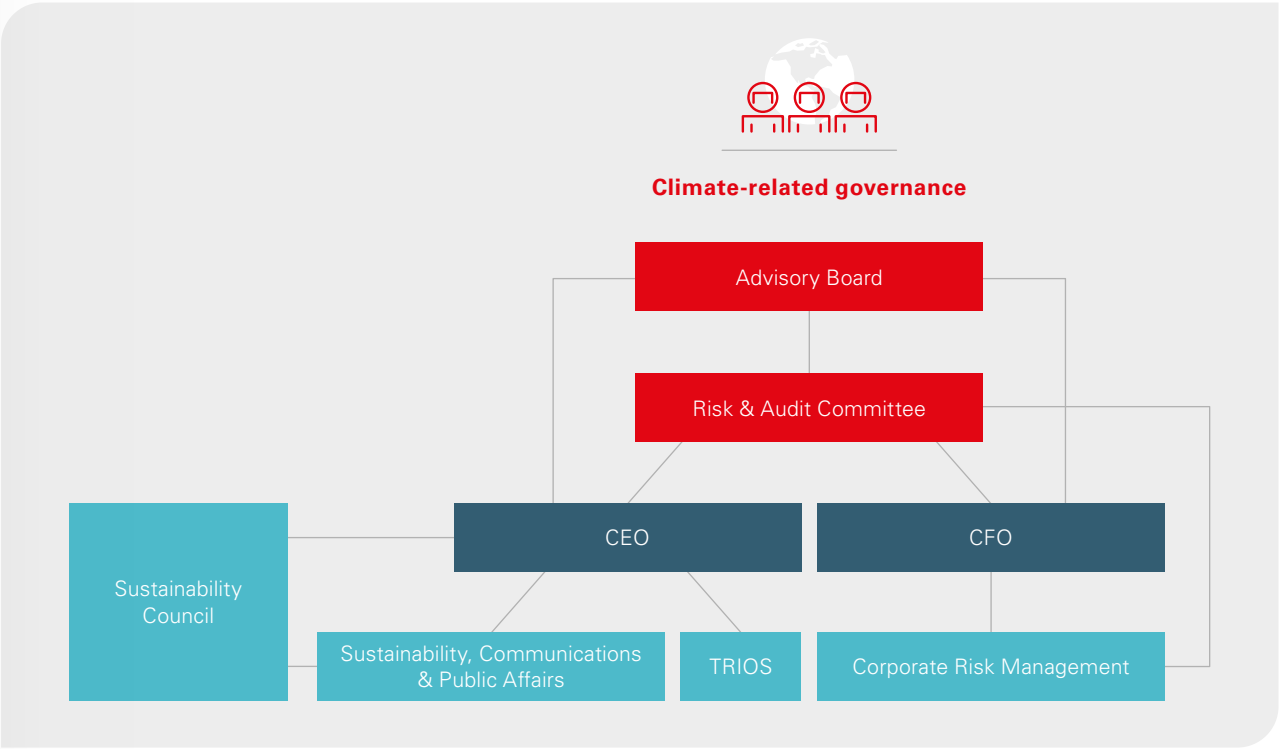
REPORTING ON CLIMATE RISKS & OPPORTUNITIES IN ACCORDANCE WITH THE TCFD

In view of the societal and environmental changes brought about by climate change, Techem has examined two different future scenarios and what they mean for our business model. Our reporting on this follows an established standard.

Reporting on climate risks and opportunities in accordance with the TCFD

Because we want to systematically address the risks and opportunities associated with climate change, we use the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) to describe the management of climate-related topics at Techem. At this point, we present potential opportunities and risks and address the strategically necessary consequences.



Management body	Tasks & responsibilities
Advisory Board	› As the highest supervisory body, it supports our management in making decisions and votes on business transactions requiring approval. › Two designated members drive forward the sustainability strategy and the decarbonization plan, monitor their implementation and take climate-related issues into account in the decision-making process. › As part of the Strategic Sustainability Initiative, relevant department heads meet with the board members responsible for ESG and discuss climate-related topics at least four times a year.
Risk & Audit Committee (RAC)	› Supports the Advisory Board in monitoring financial statements, the financial situation and company-wide risks. › Monitors compliance with sustainability requirements and takes analyses of climate-related risks into consideration. › Reports extensively on the aforementioned topics at meetings with the Advisory Board.
CEO	› Has overall responsibility for sustainability and climate issues at Techem. › Supports the Group's climate-related objectives and regularly reviews the progress of the decarbonization strategy. › Reports to the Advisory Board and the RAC at regular intervals.
CFO	› Manages the tracking of sustainability targets and the associated KPIs and serves as a control authority to ensure that all data is valid and audit-proof. › Is responsible for Group-wide enterprise risk management. › Reports regularly to the Advisory Board and the RAC.
Risk Management	› Tasked with consolidating and standardizing Group-wide risks. › Classifies climate risks as regulatory or external risks within the Group-wide risk situation and presents them in the risk catalog. › Reports to the CFO on an ad hoc basis and to the RAC at least once a quarter.
Sustainability, Communications & Public Affairs	› Is responsible for the further development and implementation of the sustainability strategy and reporting. › Supports the climate scenario analysis and assumes responsibility for reporting on climate-related opportunities and risks. › Reports regularly to the CEO and maintains regular contact with the designated members of the Advisory Board.
TRIOS	› Manages the Group-wide research, analysis and implementation activities related to consumption transparency, energy efficiency and CO_2e reduction. › Analyzes and evaluates climate risks and opportunities for Techem's individual fields of business. › Reports to the CEO, members of the Advisory Board and to the RAC on climate-related topics as required.
Sustainability Council	› Under the leadership of the CEO, the Sustainability Council gathers together the sustainability stewards – i.e. the department heads and experts relevant to the implementation of sustainability-related objectives – several times a year to discuss climate-related topics relevant to Techem, among other things.

Strategy

Both physical and transition risks and opportunities related to climate change can have an impact on Techem's business activities and consequently influence the corporate strategy. In contrast to physical risks, where climate change can have a direct impact on a company's locations and supply chains, transition risks are potential impacts caused by the transition to a decarbonized economy. For example, transition risks can be linked to changes in supply and demand or new cost structures.

According to our analysis below, transition-related opportunities and risks play a far greater role for Techem than potential physical impacts. To assess the physical impacts of global warming for Techem, particularly in relation to office locations and heating systems in our contracting business, we examined the locations and assets for temperature increases, the number of very hot days and heating degree days as well as heavy rainfall events. The results under the 2-degree scenario show that Techem is unlikely to experience any significant physical disruption to its daily business operations. Although the heating systems of the contracting business could be affected by heavy rainfall events, the risk is low, as such extreme precipitation is geographically limited. In contrast, the physical risk in our supply chain is high, which is why Techem will address this challenge more intensively in the future (see p. 95).

One example of the physical impacts we examined is the average rise in temperature, which varies in intensity at Techem's locations.

Below, we present all of Techem's opportunities and risks whose materiality was classified as high in the two climate scenarios we analyzed.

Climate scenarios

The core element of the TCFD recommendations is an analysis of climate scenarios that can influence a company's business success either directly or indirectly. This gives the company a better understanding of how it could develop with regard to various transition and physical opportunities and risks.

Techem has based its analysis on two established climate scenarios:

- The 2-degree scenario corresponds to the EU's and the German government's commitment to achieve climate neutrality by 2050 and 2045 respectively. It is based on the Energy Technology Perspectives (ETP) 2-degree scenario of the International Energy Agency (IEA).
- The worst-case scenario is based on the Shared Socioeconomic Pathways 5-8.5 (SSP5-8.5), i.e. the global climate development pathways coordinated by the Intergovernmental Panel on Climate Change (IPCC). This scenario depicts a global development with strong and sustained economic growth based on fossil fuels.

Material opportunities and risks for Techem under the 2-degree scenario and effects on the business model

Opportunities	Classification	Initial situation and effects
Business growth through the provision of innovative low-emission heating technologies (especially heat pumps)	**Time horizon** Medium term **Category** Products & services **Field of business** EES segment (contracting) **Materiality** High	Sales of heat pumps are projected to rise significantly – regardless of electricity prices – and a corresponding market ramp-up is expected. According to the forecast, the share of heat pumps in heated living spaces will increase to almost 60% by 2045. As a result, gas and heating oil for residential heating systems will fall out of use. The market situation is expected to improve further in this scenario, creating opportunities for Techem to help existing and new customers switch to heat pumps.
Additional earnings from combining submetering and smart metering for electricity	**Time horizon** Medium term **Category** Products & services **Field of business** ESG/ESI segment (submetering) **Materiality** High	New regulations to promote the energy transition in the building sector along with indirectly related laws – such as the Act on the Digitisation of the Energy Transition (GDEW) or the Metering Point Operation Act – could have a positive impact on Techem's submetering and smart metering business. However, these regulatory changes mainly focus on matters of competition law, meaning that this opportunity is likely to develop independently of the scenario examined. Once there are clear requirements for the simultaneous provision of metering services for heat and electricity, this opportunity will become more important.
Demand- and customer-oriented services based on digital metering to meet new regulatory requirements	**Time horizon** Medium term **Category** Products & services **Field of business** ESG/ESI segment (submetering) **Materiality** High	The target of an average refurbishment rate of 1.75% to achieve climate neutrality by 2045 requires increased measures for the digitalization of metering systems and their use to optimize the energy efficiency of buildings. This has a positive effect on relevant product developments. Techem can make a valuable contribution here in years to come by offering data analyses and benchmarks for complex energy systems in buildings and districts at an early stage.

Opportunities	Classification	Initial situation and effects
Development of new markets through favorable legal framework conditions in the area of electric mobility	**Time horizon** Short term **Category** Products & services **Field of business** ESG/ESI segment (submetering) **Materiality** High	The IEA's 2-degree scenario anticipates that the number of electric vehicles will increase more than sixfold by 2050 – with a simultaneous increase in the share of electric vehicles in the overall fleet. A scenario in which Germany meets the 2-degree target by achieving climate neutrality is based on the assumption that electric mobility will be specifically promoted and the charging infrastructure expanded. For example, 16 million electric cars are to be brought onto the German market by 2030. Currently, electric vehicles make up around 2% of the total vehicle fleet. Larger residential areas, in particular, offer potential in this context, which Techem can increasingly exploit for itself in this scenario.
Increasing demand for products and services that reduce the (personal) environmental footprint	**Time horizon** Short term **Category** Products & services **Field of business** ESG/ESI segment (submetering) **Materiality** High	Climate scenarios for meeting the 2-degree target indicate that indoor temperatures in residential buildings will generally be kept closer to outdoor temperatures, thereby saving energy and consequently greenhouse gas emissions. Recent surveys of the German population have also shown that nine out of ten Germans are deliberately saving heating energy and that 79% would prefer to use digital meters that show how much energy their heating system is using in real time. Beyond the legal requirements (in particular the Heating Cost Ordinance), this scenario highlights that there is already an opportunity in the short term to offer services that increase consumer transparency – and thus promote efficient heating behavior.

Risks	Classification	Initial situation and effects
Impairment of fields of business related to heat supply from fossil fuels and more efficient energy supply	**Time horizon** Medium term **Category** Technology **Field of business** EES segment (contracting) **Materiality** High	According to the current draft amendment to the Buildings Energy Act (GEG), heating systems that are newly installed from 2024 onwards must generally be powered by 65% renewable energy, while existing gas and oil heating systems will only be allowed to run for a maximum of 30 years. In the long term, this is tantamount to a ban on fossil gas and oil heating systems. Given the term of our contracts, we are likely to lose our current income from gas and oil boilers in the medium term, with technological changes requiring us to adapt our business model. The 65% target is already factored into the Techem decarbonization plan.

Material opportunities and risks for Techem under the worst-case scenario and effects on the business model

Opportunities	Classification	Initial situation and effects
New fields of business in the area of metering and billing due to increasing demand for cooling on hot days	**Time horizon** Long term **Category** Products & services **Field of business** ESG/ESI segment (submetering) **Materiality** High	In Germany, 58% of all Techem locations are situated in zones where the annual average temperature rise is above 2 degrees. Of the Techem locations supplied, some 22% are above the global average for the expected increase in hot days and over 70% are exactly on average. By 2050, the number of cooling degree days could rise to over 200–300 for large parts of Germany and to as many as 300–500 in the Upper Rhine Plain. This rise will increase the need to use thermal meters for both heating and cooling requirements, resulting in additional potential for Techem's meter reading business.
Additional earnings due to increasing demand for cooling and the possibility of combined heat and cooling provision	**Time horizon** Medium term **Category** Products & services **Field of business** EES segment (contracting) **Materiality** High	The average demand for cooling is expected to increase significantly, with both active and passive cooling measures becoming relevant in the future. Demand for cooling energy in residential buildings in Germany is projected to rise by more than 50% by 2035 and by more than 90% by 2085. By 2050, air conditioning in buildings is estimated to account for 3–6% of private households' electricity consumption. The predicted additional demand for cooling can open up considerable business potential for Techem – particularly through the combined provision of heat and cooling.

Risks	Classification	Initial situation and effects
Temporary unwillingness on the part of customers to invest in low-emission, capital-intensive solutions (particularly heat pumps)	**Time horizon** Medium term **Category** Market **Field of business** EES segment (contracting) **Materiality** High	The SSP5-8.5 scenario is based on the assumption that there will be a clear focus on energy efficiency and cost-effectiveness in the building sector and little climate policy support for green heating technologies. As a result, the trend toward greater energy efficiency in the fossil fuel sector could have a negative impact on people's willingness to invest in lower-emission technologies, unless further legal requirements for green technologies are introduced. Under this scenario, the hesitancy to invest that can already be observed among customers today could therefore be confirmed in the medium term, particularly in the case of capex-intensive technologies that are only at the beginning of their market development.

Risks	Classification	Initial situation and effects
Disruptions in the supply chain due to physical risks such as heat events, droughts, floods and storms	**Time horizon** Long term **Category** Market **Field of business** ESG/ESI segment (submetering) **Materiality** High	The product groups with the highest potential risk for the ESG/ESI segment are household heating/energy control devices. The majority of these are sourced from suppliers in less risky regions in Central Europe. One exception are Eastern European supplier countries. Here, the average rise in temperature is already critical in the medium term, with a high risk of heat waves and droughts. Certain goods are problematic, such as those that have long upstream chains (e.g. electronics, critical raw materials), that come from regions with a high incidence of physical risks (e.g. China, Indonesia, Romania) or that are dependent on endangered resources (e.g. iron goods – water scarcity). Even transport routes within Germany are affected by the increase in extreme precipitation events, drought and reduced waterway transportation.

The scenario analyses carried out clearly show that Techem is affected far more by the transition opportunities and risks of climate change than by the physical ones – at least in the short and medium term under the 2-degree scenarios. Due to our business model, we see far more transition potential, and we are already tapping into this potential with various solutions as part of our corporate strategy. Ultimately, we want to increase the climate-friendly impact of our products and services in order to contribute to climate-neutral building management. We are therefore stepping up our activities in five strategic fields of action:

- Green energy contracting: We are realizing the CO_2e reduction in buildings through our heat pump solutions and by growing our low-emission business in newly constructed buildings (see Sustainability Report 2023 p. 52).
- Sector coupling: By adding e-mobility infrastructure as a new offer for our customers, we are linking electricity and heat consumption with the mobility sector (see Sustainability Report 2023 p. 46).
- Digital infrastructure: We are laying the foundations for efficient energy management through our wireless sensors, smart readers and smart metering (see Sustainability Report 2023 p. 31 and p. 34).
- AI-assisted energy efficiency: With the help of AI-assisted systems, such as our Digital Boiler Room or our adapterm smart heating control system, we are optimizing the energy efficiency of buildings and creating new concepts for building modernization.
- Cooling systems: The use of cooling meters and the supply of cooling as part of our contracting services allow for efficient provision in line with the growing demand for cooling (see Sustainability Report 2023 p. 31).

Risk management

Techem assesses all risks – including climate-related risks – using a standardized risk assessment framework. Climate risks are included either as regulatory or external risks. The relative importance of different climate risks is measured on the basis of their probability of occurrence, the ability to mitigate them, their impact and the specific risk tolerance. In the 2023 financial year, Techem identified climate-related risks and opportunities and determined their materiality, taking into account our two segments and the approach recommended by the TCFD. We did this on the basis of a risk register with a total of 26 climate-related opportunities and risks. In addition, we carried out a pre-screening of our suppliers in the 2022 financial year to identify potential human rights and environmental risks, which also include climate risks (see Sustainability Report 2023 p. 95).

Key figures and targets

Our strategy to achieve climate neutrality and reduce greenhouse gas emissions on the path to a 2-degree scenario helps us mitigate the risk of additional expenses in the supply chain. At the same time, it gives us a greater chance of further consolidating our success in strategic fields of action.

Within the framework of our decarbonization plan, we intend to reduce our CO_2e emissions in Scopes 1 and 2 by at least 42% and in Scope 3 by 28% by 2030 compared to the 2020 financial year. Our long-term goal is to achieve an emissions reduction of at least 90% in all scopes by 2045. In order to satisfy the Net Zero standard of the SBTi and ensure that the Techem Group is climate-neutral by 2045, we intend to compensate for the remaining emissions through carbon offsetting or carbon capture technologies. Regular reviews of our reduction targets are therefore a key indicator for our corporate strategy.

From Sustainability Report 2023 p. 47 onwards, we report on Techem's CO_2e footprint using key figures for our Scope 1, Scope 2 and Scope 3 emissions.

Alongside emissions, the progress made in our strategic fields of action is an important indicator that we use to achieve our CO_2e reduction targets. That is why we continuously monitor the status of the following targets:

Converting 100 existing systems to bivalent heating systems consisting of heat pumps and gas-fired peak-load boilers	FY 2024
Equipping all heating systems with a Digital Boiler Room smart monitoring system (formerly Techem Smart Monitor (TSM)) to automatically monitor the energy efficiency of the systems	FY 2026
Equipping all heating systems with smart metering systems	FY 2026
Conducting pilot projects to add green solution packages (PV, electric charging, tenant electricity, CHP, heat pumps, smart metering) to the product portfolio for existing buildings	Ongoing
90% of the devices in the properties can be read remotely	FY 2025
5,000 charging points under Techem service supplied with green electricity (for private charging infrastructure)	FY 2027