Climate Report (TCFD)

Introduction

V-ZUG has been reporting in line with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) since the 2023 financial year. Focusing on the areas of governance, strategy, risk management, metrics and targets, we highlight the potential impact that the climate-related risks and opportunities identified by V-ZUG could have in a business context and outline how we approach this issue as an organisation.

We see sustainability as a holistic concept that encompasses our entire value chain on an ecological, social and entrepreneurial level. Responsible business is not just a passing fad for us; it is something that shapes our decision-making and the work we do on a daily basis. Since 2012, V-ZUG has published a Sustainability Report in accordance with the GRI Standards, including climate matters. This TCFD Report takes a more in-depth look at these environmental aspects.

Governance

Sustainability is one of the four cornerstones of V-ZUG's corporate strategy. The corresponding sustainability strategy addresses topics in greater depth and shines a light on future-fit, sustainable corporate governance. Giving due consideration to the potential effects of climate change on our company's durability, resilience and business activities is a key part of this reporting process.

Our Board of Directors reviews and approves our corporate strategy. The Executive Committee develops and proposes the corporate strategy and oversees its implementation once it has been approved. The Board of Directors is also responsible for approving V-ZUG's medium- and long-term sustainability targets (focus topics for 2030) and the corresponding roadmap. It reviews these on a regular basis. Our "Environment and climate protection" focus topic outlines our Scope 1, 2 and 3 reduction targets for CO_2 emissions through to 2030 (baseline year 2020). It also describes our management approach and the measures we have taken, and discloses the relevant key figures. Three times each year, our focus topics and the current status of our activities are discussed with the responsible members of the Executive Committee.

The Board of Directors receives a detailed update on the topic once a year as part of our sustainability and risk reporting processes, ensuring all members have a clear picture of where we stand and the progress we have made in terms of climate-related issues. This also enables us to review the progress of our sustainability targets, including climate targets.

Our Sustainability Report is drawn up by an interdisciplinary working group, led by the Head of Sustainability at V-ZUG. The CO_2 assessments in Scope 1 and 2, including offsetting measures, are also audited by an external body and confirmed in an assurance statement.

Our risk report is drawn up by the Executive Committee and reviewed and approved by the Board of Directors. The TCFD Report provides an in-depth analysis of climate change as a macro risk and is published in the Sustainability Report.

The Sustainability Report has been integrated into the Annual Report since the 2023 financial year. This not only strengthens the involvement of the entire Board, but also demonstrates the equal importance of financial and non-financial key figures. The Audit Committee of the Board of Directors reviews the Annual Report, with final approval given by the Board of Directors.

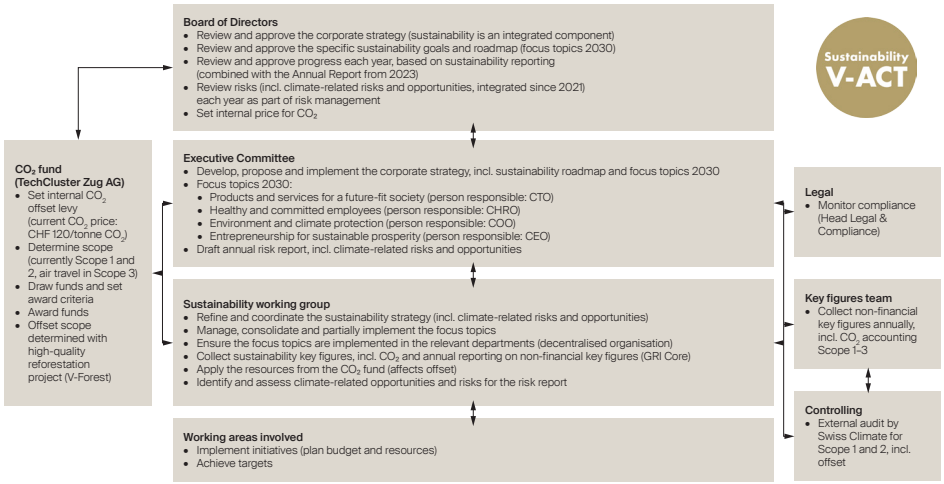
The Board of Directors is also informed about sustainability issues and any relevant decisions in the course of its ordinary meetings, which are held at least four times a year. The Executive Committee is also updated on specific points in its monthly meetings.

V-ZUG takes an interdisciplinary approach to sustainability management, with the topic implemented in various areas throughout the company, depending on the particular issues and opportunities. V-ZUG's decentralised Sustainability Workforce comprises representatives from a range of departments. Set up in 2020, the team implements our focus topics systematically in all corporate areas. The working group is led by the Head of Sustainability, who reports directly to the CEO. The Sustainability Workforce meets once a month to work on and steer our four

focus topics, coordinate our sustainability strategy (including climate-related risks and opportunities) and identify areas for further development. The collection of key sustainability figures (including CO_2) and annual reporting on non-financial key figures (in accordance with the GRI Standards) are important tools for handling and reviewing sustainability topics. The materiality matrix is updated every three to four years (most recently in 2024).

As part of TCFD reporting activities, the risk-analysis process used to compile the annual risk report has been expanded to include more detailed climate-related risks and opportunities. The Sustainability Workforce undertakes this more in-depth, multifaceted risk evaluation in conjunction with experts from our Finance, Legal and Procurement departments, allowing us to assess the expected impact of different measures.

Governance – overview



Corporate governance overview in relation to sustainability, V-ZUG, source: vzug.com

Climate protection strategy

V-ZUG has identified potential climate-related risks and opportunities that could have an impact on the Group's operations, strategy and financial planning measures. In accordance with the recommendations of the TCFD, a distinction is made between physical risks, which may be acute or chronic, transition risks and climate-related opportunities.

Physical risks categorised as relevant by V-ZUG include extreme weather conditions, rising sea levels, floods and heat waves, and their potential consequences in terms of supply chains and employee productivity.

V-ZUG considers the following topics to be **relevant climate-related transition risks**: a lack of communication or exaggerated communication regarding climate protection (danger of green-washing), the failure to meet sustainability targets or implement climate-protection measures, the introduction/extension of a carbon tax for companies or ecodesign regulations and, finally, a change in consumer behaviour.

However, V-ZUG has also identified **certain opportunities associated with climate change**, including increased construction activity due to climate-related displacement, growing demand for sustainable household appliances, changes in consumer preferences with regard to greater sustainability and opportunities for new business models ("Share Economy", "Product as a Service", etc.). Further opportunities include the ability to build more resilient supply chains, increased attractiveness for employees due to changes in sustainability awareness, and differentiation from competitors in terms of sustainability (position as pioneer).

Climate-related physical risks:

1. Extreme weather conditions (droughts, heavy rain and floods) and chronic changes to weather patterns (higher global temperatures and rising sea levels) have a negative impact on our supply chain.
2. . Extreme weather conditions (severe heat and/or other weather events) could have a negative impact on employees' health and productivity levels.

Climate-related transition risks:

3. V-ZUG is perceived as a brand that does not take responsibility for climate protection and shows no accountability.
4. In terms of communication, our approach to climate protection is exaggerated and perceived as greenwashing.
5. We have defined ambitious climate targets and measures, but are unable to implement these as planned and fall short of our targets. This could be due to unexpectedly high costs or the fact that the measures themselves are not technically feasible.
6. More stringent regulations are issued regarding ecodesign (energy efficiency, the circular economy, material impact, etc.).
7. A CO_2 levy is introduced/extended for companies (already in place in Switzerland for heating oil and gas), which results in increasing costs (e.g. energy and materials).
8. Increased climate awareness and higher consumption costs lead to a change in consumer behaviour.

"Environmental and climate protection" focus topic – CO_2 emissions under the spotlight – management approach

V-ZUG is aware of its own responsibilities when it comes to climate-related issues and distinguishes between inside-out effects (i.e. the influence V-ZUG has on climate change) and outside-in effects (i.e. the influence of climate change on V-ZUG).

Principle: prevent, reduce and offset – important tool:
internal CO_2 levy

To minimise the effect our business activities have on the environment (inside-out), we adhere to the principle of "preventing, reducing and offsetting CO_2 emissions" (in order of priority). However, rather than simply targeting prevention or reduction at any cost, the goal must be to achieve progress in these areas in a way that makes good business and economic sense. V-ZUG therefore introduced an internal, voluntary CO_2 levy in 2018 in collaboration with Metall Zug AG (its former parent company prior to its public listing in the 2020 financial year). An annual offset levy of CHF 120 per tonne of CO_2 is applied to the remaining Scope 1 and 2 emissions and Scope 3 emissions from air travel and paid into our CO_2 fund. Money from the fund can then be put towards projects that are beneficial on an environmental level but are not yet economically attractive. The amount of the levy is determined by the Board of Directors together with Metall Zug AG and is used by the Sustainability Workforce to guide the actions taken in our various departments.

Investment in the V-Forest reforestation project in collaboration with the Ripa Gar Foundation

V-ZUG has not yet been able to completely prevent CO_2 emissions along the entire value chain. The aim is to reduce direct emissions largely through own efforts; as such, targets have been set to be achieved by 2030 – and the measures needed to reach these targets have been identified and planned. V-ZUG has also been investing in a high-level climate protection project since 2020 to offset the remaining emissions (Scope 1 and 2 and air travel in Scope 3). This means that V-ZUG has achieved and maintained CO_2-neutral production (including offsetting) for all Swiss-made appliances since 2020. The money required to offset our emissions is also taken from the CO_2 fund. For this project, we are working with the Ripa Gar Foundation to support a reforestation project in Scotland. This enables us to obtain high-quality carbon removal certificates to compensate for our remaining emissions. Working with a non-profit foundation with a long-term horizon is important to us, as it enables us to make a credible contribution to protecting the environment by investing in reforestation.

The "V-Forest" is located in Glen Lochay in the Scottish county of Perthshire. Working in accordance with the UK Woodland Carbon Code (WCC), the Ripa Gar Foundation has already planted 800,000 trees in an area equivalent to around 700 football pitches. The WCC is a government-backed standard in the UK for reforestation projects and offers independent verification and validation of the amount of CO_2 sequestered through a sustainable forestry project. Our contributions are helping to grow a native mixed woodland (42 % birch, 21 % pine, 16 % oak and other local species). Over the next 100 years, the areas already reforested will capture and store around 210,000 tonnes of CO_2. The project is protected against forest fires, diseases and other risks. A total of 30 % of the certificates available for all WCC projects are held in a buffer and made available to everyone as a form of insurance should a risk materialise.

As well as sequestering CO_2, the project has other positive side effects, such as increasing biodiversity, improving local water quality, restoring the moor landscape and helping to reduce the risk of flooding. This allows native flora and fauna to flourish, and nature to find its balance.

It would be difficult to realise a comparable project of this size in Switzerland. However, in addition to the space requirements, there were other reasons for choosing Scotland as a location, including its favourable climatic conditions (even with rising temperatures), good local institutions and the required expertise. It will take a little while before the CO_2 certificates from the "V-Forest" can be used directly to offset our emissions. The trees need to grow before they can capture and store the required amounts of CO_2. Until then, the Ripa Gar Foundation is

supporting another reforestation project in India that captures an equivalent amount of CO_2 for each tonne of CO_2 generated. The project is certified according to the UN Framework Convention on Climate Change and is listed on the UN Carbon Offset Platform. The required amounts of CO_2 have already been captured. Our participation in this endeavour effectively offsets double the amount of our own emissions and means that V-ZUG has achieved and maintained CO_2-neutral production for all Swiss-made appliances since 2020.

Our approach to Scope 1 and 2 emissions

Our target for 2030 is to reduce the direct emissions generated at our production sites in Zug, Sulgen and Changzhou and those emitted by our vehicle fleets, including service vehicles and trucks (Scope 1), by 80 % compared to the baseline year of 2020. The same applies to indirect emissions from the generation of purchased electricity (market-based) and district heating (Scope 2). Our long-term ambition is to achieve a reduction of 100 %. This current near-term target (since 2020) was submitted to the Science Based Target initiative (SBTi) in the reporting year 2024 and will therefore be validated within the next two years (depending on the SBTi). Current status: “Committed”.

With this bottom-up goal, V-ZUG thus intends to achieve a significantly greater reduction in CO_2 emissions than the recommendations of the SBTi: To limit the rise in global temperatures to 1.5 °C, as stipulated in the Paris Agreement, an annual reduction in Scope 1 and 2 emissions of 4.2 percentage points is required over a period of five to ten years (42 % in total compared to the baseline year).

The most relevant measures we have adopted to reduce our Scope 1 and 2 emissions are as follows:

- V-ZUG Kühltechnik AG's new **production site in Sulgen**, which entered operation in 2022, boasts sustainable infrastructure (a groundwater heat pump which powers the heating system, energy-efficient building design and a photovoltaic system on the roof). This also means we no longer need the oil heating system at the old site in Arbon.
- With our **Multi Energy Hub** progressively supplying the V-ZUG site at our headquarters in Zug with renewable energy (photovoltaic systems, waste heat from production, groundwater and lake water), we will be able to eliminate the consumption of natural gas for heating at the site almost entirely in the coming years (from 2023 to 2027).
- The **site transformation at our headquarters in Zug** (which began in 2014 and will be largely completed by 2027) will see almost all the old production and administration buildings replaced with new, energy-efficient constructions. Several new, more energy-efficient production facilities will also be put into operation. This is expected to result in significant savings in terms of our electricity consumption.
- We are gradually reducing the CO_2 emissions of the **V-ZUG vehicle fleet** by switching from diesel vehicles to electric models. Our first batch of electric service vehicles (around 300 in total) went into operation in 2023, and 2024 saw the introduction of our first electric trucks (15 vehicles in total). The conversion of the truck fleet is being partially financed by our CO_2 fund.
- To support the **decarbonisation of industrial processes**, V-ZUG plans to use hydrogen in place of natural gas for certain processes in the future (e.g. to achieve the 850 °C necessary for the high-temperature enamelling process). V-ZUG is a founding member of the Association for the Decarbonization of Industry, which aims to create sustainable hydrogen using a new process (methane pyrolysis). The pilot plant is set to begin operations in 2024, with the ultimate goal being full-scale industrial production. Depending on the purity of the hydrogen produced, it may also be possible to use it to decarbonise V-ZUG’s truck fleet further down the line. This project is being financed in part by the internal CO_2 fund.
- **Procuring renewable electricity**: For many years, 100 % hydropower has been purchased for the Zug production site (Swiss-sourced since 2022) to support the expansion of renewable energy. This approach has also been taken at the new production site in Sulgen since 2022. The CO_2 emissions are declared accordingly in line with the certificate of origin (market-based, as per the reporting regulations of the Greenhouse Gas Protocol). For reasons of comparability, the emissions of the power used (location-based) are also shown. This comparison is helpful in discussions regarding the known discrepancy between the power that is purchased and that which is actually used.

Thanks to the range of reduction measures we have implemented and the “V-Forest” project, which enables us to offset CO_2 emissions, production at V-ZUG has been CO_2 neutral since 2020.

Our approach to Scope 3 emissions

In the 2020 financial year, V-ZUG carried out a holistic screening of its Scope 3 emissions for the first time. The Greenhouse Gas Protocol divides Scope 3 emissions into 15 categories, 11 of which were deemed relevant. Categories 9, 10, 11 and 14 were classified as not relevant. Our

indirect Scope 3 emissions levels are several times higher than our levels in Scope 1 and 2. Of the 11 relevant categories, two make up over 90 % of our Scope 3 emissions: category 1, Purchased goods and services (2020: 19.7 %), and category 11, Use of sold products (73 %). However, this does not mean that the other categories are less important, and we are actively targeting certain improvements in these other categories as well.

Based on this insight, V-ZUG developed a reduction schedule for Scope 3 emissions in 2022, with a focus on the two categories of 1 and 11. Our ambition is to reduce Scope 3 emissions by 30 % by 2030 compared to the baseline year of 2020. We use the term "ambition" quite deliberately where Scope 3 is concerned, since it relates to indirect emissions, and this is an area where V-ZUG often has only limited influence on the associated implementation (see measures below).

In SBTi terms, this ambition lies between a "1.5 °C" target (requirement: –42 %) and a "well below 2 °C" target (requirement: –25 %).

The most relevant measures we have adopted to **reduce our Scope 3 emissions** are:

- **Increasing energy efficiency** across all product categories. (Specific objective: increase fleet efficiency by 5 % by 2030 compared to the baseline year of 2020)
- Encouraging customers to use our appliances **in a more environmentally friendly manner** with corresponding features and handy tips
- Applying **circular economy principles** in product development (design-to-circularity principles)
- **Reducing our environmental footprint** by 5 % for new product development projects (measured using life cycle assessments [LCAs], in ecopoints [EPs])
- **Working together with suppliers** to apply circular economy principles and select low-carbon materials (e.g. recycled materials, low-carbon steel, material reduction)
- **Requiring suppliers** to reduce their own emissions. Part of V-ZUG's Scope 3 emissions includes the Scope 1 and 2 footprint of its suppliers and subcontractors.
- **Market developments** make up a significant part of the reduction (20 %). Although these can be influenced only to a limited extent, they are still taken into account in our reduction schedule. The term "market developments" refers to the expansion of renewable energy and the associated reduction in emissions in those markets where our appliances are used, as well as the reduction in emissions from purchased goods. Estimates for both these developments have been made for the period up to 2030, based in part on commitments made by countries regarding the expansion of renewable energies.

V-ZUG is also taking additional actions that are relatively small in terms of the level of reduction achieved, but which are still considered highly important in terms of the message they send to employees and the general public.

- Introducing and enhancing our **mobility strategy** at our Zug site (approx. 1,000 employees) in 2018 to minimise motorised private transport.
- Applying **sustainable construction standards** (e.g. using wood as a construction material, recycled concrete) to minimise grey energy in our new buildings (transformation of our Zug and Sulgen sites).
- Working with suppliers to minimise **transport routes**. Approximately 60 % of our suppliers are based in Switzerland, 30 % in neighbouring countries and 10 % in Asia.
- **Professional disposal of waste** and the extensive return and recycling of household appliances at the end of their life cycle.
- Using our **CO_2 Webshop**, our customers can offset the emissions that result from using their appliances. These contributions are put towards the "V-Forest" reforestation project.

Long-term "2050 net-zero target" according to the definition by SBTi

V-ZUG deliberately abstains from the use of a long-term 2050 net-zero target as defined by SBTi. A distinction between direct emissions in Scope 1 and 2 and the large dependencies in the indirect Scope 3 must be taken into account. From today's perspective, a target would therefore not be credible and would not reflect V-ZUG's values such as "reliability".

In Scope 1 and 2, from today's perspective, V-ZUG will almost certainly reach net zero by 2050 (likely even earlier, see the goal for 2030). This is now also a requirement of the new Swiss CO_2-Act, which will enter into force in 2025. Mathematically, we have been net zero in CO_2 since 2020, taking into account offsetting with removal certificates (see above, V-Forest). This is the case when the definitions of the Intergovernmental Panel on Climate Change (IPCC) are applied (see glossary, "net zero CO_2"). If a net-zero target by 2050 were definable for Scope 1 and 2, V-ZUG would be prepared to implement it immediately. However, SBTi only provides for all three scopes.

In Scope 3, V-ZUG is committed to moving forward with ongoing and planned measures that can be implemented autonomously and independently. In particular, this involves increasing the energy efficiency of the appliances and reducing the environmental footprint from the purchased materials. Solutions for the upstream and downstream value chain are being sought and implemented in this context. For a material-intensive company such as V-ZUG, cooperation with suppliers in the area of the circular economy is crucial. In addition, household

appliances consume electricity during use. For this reason, V-ZUG is reliant on the entire electricity production to be switched to renewable energy in the served markets by 2050. While we are very confident that this will occur, the implementation is outside the control of V-ZUG. For example, as a country, China has set itself the goal of being net zero by 2060. As a result, V-ZUG would not be able to reach its target by 2050. No longer selling any appliances in these markets would not be appropriate, as this would only open the market for less sustainable appliances. From today's perspective, it is also unrealistic to expect that the appliances will no longer consume electricity by 2050 or that they will produce the required electricity themselves in a renewable manner.

Risk management

The general risk management process at V-ZUG

Risk management is a key component in V-ZUG's management system. It is used to identify risks and opportunities and initiate measures. The Board of Directors bears overall responsibility for structuring the entire risk management process and ensuring its effectiveness. The risks associated with climate change are a key component in the risk management process and are included in the risk report as a macro risk. These **macro risks** are defined as risks that pose a "fundamental threat to the continued existence of V-ZUG" over a long-term horizon (ten years or more). This is a clear sign that V-ZUG considers climate-related risks to be both urgent and significant issues. A distinction is also made from **business continuity risks**, which have a short- to medium-term horizon (one to five years).

The **risk management process** implemented at V-ZUG includes various stages and tasks:

1. **Risk identification**: Every three years, a systematic, detailed bottom-up risk-identification process is carried out based on the previous year's V-ZUG Group risk report. In the two years in between, a top-down process is followed. The monitoring of opportunities also forms part of the risk management process.
2. In the subsequent **risk analysis** stage, the identified risks are assessed in terms of their likelihood of occurrence and impact. This information is then used to determine the risk factor.
3. **Risk control**: This stage involves defining strategies and measures to manage the identified risks. Within the V-ZUG Group, the Board of Directors and Audit Committee are chiefly responsible for managing risks and addressing macro risks.
4. **Risk reporting and risk monitoring**: The Executive Committee compiles an annual risk report detailing the results of the identification, assessment and control processes that have been carried out. Individual members of the Executive Committee are responsible for reviewing compliance with and implementation of the defined risk management measures. The entire Executive Committee also takes due note of these actions. In addition, a status report on measures which have already been implemented is submitted to the Audit Committee and Board of Directors.

Specific risk management process for climate-related risks

When identifying and evaluating climate-related risks as part of the TCFD Report, we proceed in accordance with our general risk process (outlined above). This report represents a more in-depth risk evaluation. It was carried out by the Corporate Sustainability team in conjunction with the Sustainability Workforce and experts from our Finance, Legal and Procurement departments. The relevant climate-related risks were identified in a series of workshops. These risks were then categorised into physical risks and transition risks. Finally, climate-related opportunities were derived. As such, the TCFD Report is an extension of our existing risk management process. Although it is included in this process, it is published separately as part of our annual Sustainability Report.

Procedure for conducting a scenario analysis of climate-related risks

V-ZUG conducted a scenario analysis to determine the resilience of its corporate strategy in the event of various climate scenarios. In a series of workshops, eight identified risks and the impact they would have on our corporate strategy were analysed and evaluated with the aid of internal experts from the departments involved. We used climate scenarios defined by the Network for Greening the Financial System (NGFS) and recommended by the TCFD. To conduct the scenario analysis as part of our TCFD reporting, we analysed the "Orderly/Below 2 °C" and "Hot House/Current Policies" scenarios and assessed the separate risks identified in each scenario.

1. The **“Orderly/Below 2 °C” scenario** envisions a future in which climate policies are introduced early in a global context. These measures become gradually more stringent and are implemented on a systematic basis. As a result, there is a 67 % probability of global warming being kept below 2 °C by 2070. Both physical and transition risks are relatively subdued.

2. The **“Hot House/Current Policies” scenario** describes a situation in which no new climate policies are added to those that have already been adopted. This scenario assumes a global temperature rise of 3 °C or more on average by 2080, in line with scientific calculations. The potential physical risks are high in this climate scenario. Owing to the lack of (additional) climate policies, low transition risks can be assumed.

By considering these different climate scenarios separately, we can identify the expected impact on the company in each case. We can also review our sustainability targets and measures in light of how quickly or slowly climate change is progressing and make adjustments as and where necessary.

The probability of each risk and its impact on the company was assessed separately on a scale of one to ten in both scenarios. We also conducted an additional assessment for each scenario before/without and after adoption of the relevant measures. Once we had these two values, we multiplied them to determine the risk factor in each case. The procedure mirrors the risk analysis process used to assess business continuity risks in V-ZUG’s annual risk report.

The following table lists the identified climate-related risks and opportunities, their impact, the measures V-ZUG has taken and the risk factors from the scenario analysis.

Physical risks:

Physical risks are the result of gradual changes in climatic conditions and extreme weather events.

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis
Acute/chronic			

Risk 1:
Extreme weather conditions (droughts, heavy rain, floods) **and chronic changes to weather patterns** (higher global temperatures, rising sea levels) could have a negative impact on our supply chain.
	Risk:
	Climate change causes an **increase in the average global temperature**, which may result in extreme (localised) weather events such as droughts, heat waves, heavy rain, floods and rising sea levels.
	
	Certain essential **components** in V-ZUG products (e.g. electronics) are produced in distant countries, some in regions which are more at risk of experiencing extreme weather events.
	
	Should any of these extreme weather events occur at one of the sites in our supply chain, this could lead to **regular disruptions in deliveries and a lack of components (or drive up the prices of components)**, which would have a negative impact on production and net sales.
	
	Opportunity:
	By identifying potential problem regions early on and making the necessary adjustments to our sources of supply, we can limit the impact of supply bottlenecks. This will also make V-ZUG more resilient to future changes to the supply situation.
	
	Opportunity:
	Climate change may require some residential areas to be relocated, leading to an increase in global construction activity. For V-ZUG, this could mean an increase in demand for its household appliances.
	
	Opportunity:
	V-ZUG could ensure ongoing future demand for its appliances by adapting its portfolio/range of products in line with the realities of climate change (e.g. producing air-conditioning appliances).
		Minimising risk and exploiting opportunities:
		• **Rethink our supply chain** or make it more resilient:
		  • Greater focus on production in Switzerland
		  • Shortening of our supply chain
		  • Secondary/tertiary sources of supply, increased stockpiling (consider recent issues in the supply chain due to geopolitical challenges and effects/after-effects of COVID-19)
		• **Make an active contribution** to limiting global warming to 1.5 °C (as per Paris Agreement) by doing the following:
		  • Implementing our **sustainability targets** and ensuring regular reviews and adjustments
		  • **Reducing our Scope 1 and 2emissions** by 80 % by 2030 and reducing **Scope 3 emissions by 30 % by 2030**
		• **Promoting and supporting the expansion of the circular economy** (taking back appliances, reusing components, etc.) will help make us more resilient to changes in the supply chain
			1.5–2 °C scenario:
			Before/without measures: **12**
			After measures: **4**
			
			3 °C scenario:
			Before/without measures: **64**
			After measures: **8**

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis

Risk 2:
Extreme weather conditions (severe heat and/or other weather events) could have a negative impact on **employees' health and productivity levels**.
	Risk:
	If employees are **less productive** due to prolonged periods of heat (or other extreme weather events) or are **absent** more often for health reasons, this could potentially reduce our profitability (presenteeism and more stress).
	
	V-ZUG will also have to reckon with increased **adaptation costs** (e.g. cooling systems, costs for absences due to illness) and higher **insurance costs for assets and staff**, which may drive up production costs in general.
	
	Opportunity:
	As a company that is committed to sustainability and future-focused transformation, V-ZUG could become increasingly **attractive as an employer for potential employees**.
		Minimising risk and exploiting opportunities:
		• **Focus topic: Healthy and committed employees** with clearly defined sub-targets, particularly:
		  • Focusing on the **long-term health** of our employees (target: stabilise the absence rate by 2025 and lower it over the long term)
		  • **Occupational safety** (target: vision "zero" and 5 % annual reduction in the number of accidents)
		
		• **Site transformation at our headquarters in Zug and the new refrigerator factory building in Sulgen:** new buildings with cooling systems have a positive impact on employee health and productivity levels
			1.5–2 °C scenario:
			Before/without measures: **24**
			After measures: **6**
			
			3 °C scenario:
			Before/without measures: **64**
			After measures: **25**

Transition risks:

Transition risks arise gradually as part of the shift towards a low-carbon economy, for example through higher costs for emissions, mandatory reporting and repricing.

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis
Aspiration/reputation			

Risk 3:
V-ZUG is perceived as a brand that **does not take responsibility for climate protection** and shows no **accountability**.
	Risk:
	There is a lack of clear communication regarding the climate-protection measures that have already been implemented, which leads to the V-ZUG brand being criticised for not doing enough to reduce its carbon footprint. The criticism that V-ZUG is not implementing any corporate measures related to climate protection could potentially damage the company's reputation, result in less business and see consumers switch to rival brands.
	
	Opportunity:
	By ensuring transparent, thorough communication of the sustainability measures and targets already implemented or planned, V-ZUG can show accountability as a company and differentiate itself from other brands.
		Minimising risk and exploiting opportunities:
		• **Greater emphasis on external communication** regarding climate-protection measures already implemented or planned:
		  • Particular focus on the key **role that sustainability plays** in our corporate strategy and production and development processes
		  • Communicate our **sustainability targets**, reduction targets, Scope 1, 2 and 3 (approach: prevent, reduce and offset)
		• Streamline and consolidate the process for **documenting** all V-ZUG's efforts in the area of corporate sustainability to make transparent external communication easier
		• **Gradually expand** our sustainability communications to previously unused **channels** (e.g. social media, intranet, apps, employee onboarding, operating instructions, website)
		• **Regularly review** the information being communicated to ensure it is consistent and up to date with the sustainability measures actually implemented/planned
			1.5–2 °C scenario:
			Before/without measures: **25**
			After measures: **4**
			
			3 °C scenario:
			Before/without measures: **49**
			After measures: **9**

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis

Risk 4:
Our **approach to communication** on climate protection measures is **exaggerated** and perceived **as** greenwashing.
	Risk:
	The criticism/public perception that V-ZUG talks a lot about climate protection but does not implement any real measures could damage the company's reputation, mean less business and see consumers switch to rival brands. There is a risk that V-ZUG will be held accountable by private claimants.
	
	Opportunity:
	By continuing to implement its current and planned sustainability measures, V-ZUG can enhance its reputation and differentiate itself from its competitors.
		Minimising risk and exploiting opportunities:
		• **Transparent, serious and truthful** communication regarding our projects and successes (avoiding exaggeration; transparency leads to comparability among companies and increases trust):
		  • Transparency through annual reporting on **Scope 1, 2 and 3 emissions in our Sustainability Report** in accordance with global standards (GRI, GHG Protocol).
		  • Orientation toward and alignment with relevant recommendations and requirements (e.g. SBTI, CDP)
		  • Monitoring the regulatory environment (e.g. EU Green Claim Directive)
		  • **External validation** of Scope 1 and 2 emissions and offsetting measures to achieve CO_2-neutral status at our production sites (Swissclimate)
		
		• **Prioritising** clear, truthful presentation and communication of the climate-protection measures that V-ZUG is currently implementing and intends to implement in the future.
		• **Clear presentation and explanation** of the approach taken and the significance of the targets/measures (e.g. offsetting with V-Forest)
			1.5–2 °C scenario:
			Before/without measures: **63**
			After measures: **4**
			
			3 °C scenario:
			Before/without measures: **80**
			After measures: **9**

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis

Risk 5:
We have defined **ambitious climate targets** and measures but are **unable to implement these as planned and fall short of our targets.**
This could be due to unexpectedly high costs or the measures not proving to be technically feasible.
	Risk:
	The criticism that we define climate-related targets and measures but are unable to implement them has consequences. This could damage the company's reputation, mean less business and see consumers switch to rival brands.
	
	Opportunity:
	By ensuring that the targeted implementation of climate-related measures remains a priority and an important point of reference in the corporate strategy, we can expect to stay one step ahead of the competition.
		Minimising risk and exploiting opportunities:
		• Having the clear target of reducing Scope 1, 2 and 3 emissions ensures a focused approach.
		Annual reporting on this area in our Sustainability Report (included in the Annual Report as of 2023) enables us to review our progress toward:
		  • Reducing our Scope 1 and 2 emissions by 80 % by 2030
		  • Reducing Scope 3 emissions by 30 % by 2030
		• Our voluntary, internal CO_2 fund enables us to make ecologically sensible investments (e.g. e-trucks to reduce our CO_2emissions)
		• Regularly reviewing/monitoring our climate-protection measures and sustainability targets to ensure they are both relevant and feasible. This means making adjustments where necessary to maintain/ achieve feasibility as far as possible
		• Prioritising **the clear, truthful representation and communication** of climate-protection measures
			1.5–2 °C scenario:
			Before/without measures: **30**
			After measures: **2**
			
			3 °C scenario:
			Before/without measures: **42**
			After measures: **6**

Regulatory/statutory			

Risk 6:
More stringent **regulations are issued** regarding **ecodesign** (energy efficiency, the circular economy, material impact, etc.).
	Risk:
	New or additional guidelines on ecodesign could be issued in the following areas: energy efficiency, circular product design, material impact, return and recycling obligations, material declarations and the proportion of recycled materials.
	
	The compliance with and implementation of these guidelines leads to higher product development costs.
	
	Opportunity:
	By continuing to make increased investments in developing and producing ever more energy-efficient appliances, we are able to maintain a high-quality product range and ensure compliance with ecodesign guidelines without sudden cost increases.
		Minimising risk and exploiting opportunities:
		• Conduct regular **reviews** to assess which new/more stringent ecodesign guidelines are likely to be issued in the near future and affect us.
		• The focus must always be on **developing sustainable products, regardless of any new regulations entering into force:**
		  • Pursuing a systematic **investment strategy** that enables future-fit innovations and efficiency gains
		  • Using innovations and targeted guiding principles (energy efficiency, circular economy principles in product development, etc.).
		  • Research and development costs amounted to roughly 10 % of net sales in 2022. Thanks to these investments in innovation, we are well positioned to accommodate more stringent ecodesign guidelines.
			1.5–2 °C scenario:
			Before/without measures: **48**
			After measures: **32**
			
			3 °C scenario:
			Before/without measures: **72**
			After measures: **54**

Type	Risks and opportunities (impact on V-ZUG)	Measures	Risk factors Scenario analysis
Risk 7: A **CO_2 levy** for companies is introduced/expanded (already in place in Switzerland for heating oil and gas, potential extension).	**Risk:** Higher or expanded carbon taxes could lead to additional costs for the company. The introduction/increase of carbon taxes would also lead to large-scale rises in the prices of goods and services and, by the same token, reduce consumer (future) purchasing power. **Opportunity:** V-ZUG could be seen as something of a pioneer (voluntary internal CO_2 levy introduced in 2018), which has a positive impact on the company's reputation and generates additional business.	**Minimising risk and exploiting opportunities:** • Monitoring upcoming ESG regulations and requirements on an ongoing basis • Adjusting the **corporate strategy accordingly** • Voluntary internal CO_2 levy introduced in 2018 (Scope 1 and 2 plus air travel) (rate: CHF 120 per tCO_2). • As such, part of the potential tax is already reflected in our **budget and financial planning measures**.	**1.5–2 °C scenario:** Before/without measures: **42** After measures: **28** **3 °C scenario:** Before/without measures: **64** After measures: **48**
Market:			
Risk 8: Increased climate awareness and higher consumption costs lead to a change in **consumer behaviour**	**Risk:** This may lead to a drop in consumer purchasing power or see consumers buying fewer, cheaper or smaller products, leading to a slump in sales. There is also the danger of stigmatisation, meaning that consumers steer clear of certain types of products (e.g. tumble dryers, wine coolers). **Opportunity:** Our "Shared Economy" and "Product as a Service" models or "Second Life/Refurbishment" could provide alternatives for consumers who do not want to purchase their own appliance or cannot afford to do so. By offering these types of business models, V-ZUG can be confident of gaining an advantage in the market. **Opportunity:** If energy prices increase, household appliances with sustainable features will likely have a (competitive) advantage over less energy-efficient models.	**Minimising risk and exploiting opportunities:** • By conducting regular reviews, we can ensure that V-ZUG's range of products matches the interests and requirements of our target groups. We can also make adjustments if necessary to ensure products remain competitive over the long term. • Early promotion and further development of new business models such as "Shared Economy", "Product as a Service" and "Second Life". • By pursuing a systematic investment strategy, we can ensure future-fit innovations and efficiency gains.	**1.5° C – 2° C scenario:** Before/without measures: **16** After measures: **4** **3 °C scenario:** Before/without measures: **35** After measures: **10**

Overview of climate-related risks, opportunities, the impact on V-ZUG, associated measures and the results of our scenario analysis

Implications:
If measures are not implemented, V-ZUG sees the greatest risk potential in the 1.5–2 °C scenario for the transition risks of greenwashing, more stringent ecodesign guidelines and the expansion of a carbon tax. In the 3 °C scenario without measures, delivery disruptions due to extreme weather conditions and health-related decreases in the productivity of employees are also seen as considerable risks. However, it is also clear that the impact of these risks can be significantly reduced by the measures currently in place at V-ZUG and the further measures that the company plans to implement. In terms of the 1.5–2 °C scenario, we expect that V-ZUG's measures can reduce the risks of more stringent ecodesign guidelines and carbon taxes to a moderate level, while all other risks can be reduced to a low level. Even in the 3 °C scenario, we assume the measures we have outlined would achieve a clear reduction in the level of risk, albeit not to the same extent.

Financial impact:
Given the high level of uncertainty regarding the progression of climate change and lack of previous experience, while we can provide a scaled estimate as to the extent of the impact on our business, we cannot quantify the financial effects in any meaningful way.

The investments required to minimise risks and exploit opportunities are either realised in our current budget (e.g. increasing efficiency in our appliances, existing R&D budget and correct focus) or co-financed through the CO_2 fund (e.g. decarbonisation of our truck fleet, hydrogen production).

Metrics and targets

The targets we have identified, the progress made towards achieving them and information on our emissions are outlined in the "Environment and climate protection" focus topic. Details can also be found in the appendix under "Targets and status" and the GRI index.