

Foundations for success



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Foundations for success

Our Strategy 2030+, our business model, a forward-looking risk management, and interaction with our stakeholder: these cornerstones provide the central basis for our business success.

Vetropack's [business model](#) is based on glass as a raw material. Glass can be recycled an infinite number of times without any loss of quality, and it is re-usable – attributes that make it an integral element of the circular economy. Glass affords protection for beverages and foods, and makes it possible to preserve them. At the core of our business model is our corporate purpose: 'We make it possible for everyone to enjoy food and beverages in the most elegant, safest and most responsible way.'

So we can continue developing our business successfully, we are focussing on five strategic thrusts of our [Strategy 2030+](#). They define our identity, and they help to ensure that Vetropack will play its part in proactively shaping the glass industry's long-term development. The right organisational structure helps us to implement the strategy.

Thanks to systematic [risk management](#) and by taking account of [climate-related risks and opportunities](#), we act with foresight and we are able to plan and implement the necessary measures.

Another key foundation for success is interaction with our [stakeholders](#). By engaging with them, we learn at first hand what is required and expected of us; we know which trends impact our business, and we come to understand where our strengths lie and where we may have potential for improvement.



Foundations for success

Business model

Our business model supports a sustainable circular economy: this is because glass is largely manufactured from natural raw materials, and it can be reused and recycled an infinite number of times. Our corporate purpose is to make it possible for everyone to enjoy food and beverages in the most elegant, safest and most responsible way.

About Vetropack

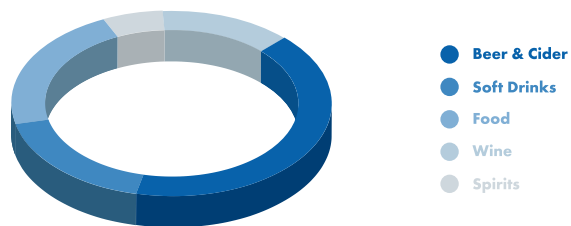
Headquartered at Bülach in Switzerland, the Vetropack Group employs a workforce of 3,585 people and numbers among Europe's leading manufacturers of glass packaging for the food and beverage industry. We have eight glassworks, as well as sales and distribution locations in Switzerland, Austria, the Czech Republic, Croatia, Slovakia, Ukraine, Italy, the Republic of Moldova, and Romania.



31.12.2024

You can find detailed information about our organisation and locations on our [website](#).

Our product portfolio comprises over 2,500 different glass containers in standard shapes as well as customised designs. We are active in Business-to-Business (B2B) commerce, and we supply around 1,700 customers in the food and beverage industry. The majority of our customers are located in Europe, within an average radius of 400 km from our glassworks. We produce approximately 5 billion glass containers each year. The breakdown of the various segments is as follows:



Development of **process and product innovations** and close collaboration with our customers are core success factors in our business model. In addition to standard products, for example, we develop personalised and distinctive glass packaging solutions. Our work always focuses on the **quality and safety of our products**.

We protect your enjoyment.



1

RAW MATERIALS

The materials we use to manufacture our glass containers are recycled glass, quartz sand, soda, lime, dolomite and feldspar, as well as colouring agents and coatings.

2

MELT AND MOULD

We recognise the value of modern, energy-efficient production processes, and we manufacture our products in close proximity to our customers.

3

CHECK

Comprehensive testing and inspection processes ensure quality and safety.

4

PACK AND DELIVER

Our eight glassworks in seven countries position us close to our customers, with a maximum delivery radius of 400 kilometres.

5

FILL

We offer technical customer service solutions – for challenges in the filling/bottling process, for example.

6

SELL

Our (customised) glass packaging helps our customers to stand out from their market competitors.

7

ENJOY

We make it possible for everyone to enjoy food and beverages in the most elegant, safest and most responsible way.

8

RETURN OR RECYCLE

We promote the circular economy by providing reusable and recyclable glass packaging.

Our value chain

Raw materials and suppliers

To manufacture our glass packaging, we use the following raw materials (among others):

- Recycled glass (cullet), quartz sand, soda, lime, dolomite, and feldspar
- Colouring agents such as iron, pyrite, chromite and selenium
- Coating materials

Important assets and commodities for our production include:

- Capital goods such as furnaces, glass-blowing machines, inspection machines and moulds
- Transport and distribution services
- Energy

We have around 5,000 direct suppliers and all of them are located in Europe. They include about 429 strategic suppliers. They provide products and services for our entire Group. We operate seven cullet processing plants of our own. Thanks to them, we are able to increase the availability of high-quality cullet and use it as a starting material for new products.

Glass production

We are committed to modern production processes, and we recognise the value of energy-efficient production in proximity to our customers. To manufacture glass, we melt the raw materials at temperatures of around 1,600°C. Shears cut the glass gobs, which are then moulded into the desired shape in the glass-blowing machines. The moulded products are slowly cooled and tempered to give them their strength. Before our glass containers are packaged and sold, they undergo extensive mechanical and manual quality controls. Management systems and certifications guarantee high [product quality and product safety](#). We pack the finished products on [pallets](#) for transportation.



Products and services

As well as manufacturing our glass packaging for the food and beverage industry, we offer our customers a wide range of services as part of our [Service plus+ approach](#). These include consulting and support in various areas: packaging analysis, filling/bottling and closure technology, glass finishing, and labelling. Our technical customer service provides support from the very start of the development process for new glass packaging. Our service team can also measure the forces acting on the glass bodies during filling, with the help of a [sensor](#). Based on this informa-

tion, our customers can adjust their filling processes optimally so as to reduce the risk of glass breakage.

Our product portfolio comprises glass packaging for beers and ciders, wines, spirits, soft drinks and foods. Our wide-neck jars, for instance, are ideal for preserving fruit and vegetables. Other highlights of our portfolio include jars for spreadables such as jam, and honey, jars for meat and fish, bottles for vinegar and oil, bottles and containers for sauces and dairy products, as well as containers for baby food. Our customers can access all our glass packaging products in our [on-line catalogue](#) by searching for criteria such as filling volume, shape, colours or closure types.

One of our most important products is our thermally [tempered lightweight](#) glass bottle. The glass bottle produced with this innovative process is around 30 percent lighter than a standard bottle – but, at the same time, more resistant to abrasion. These lightweight yet robust glass bottles are already in use as reusable bottles, and they are set to become even more relevant as a result of the EU's Packaging and Packaging Waste Regulation (PPWR).

Customers and consumers

Glass packaging enables people to enjoy food and beverages in the most elegant, safest and most responsible way. We view glass as a sustainable packaging material – because it is reusable and recyclable. Glass is inert, and it is manufactured without substances that are harmful to health – so it provides optimal protection for the foods and ensures their shelf life. Another reason why glass packaging is gaining in popularity is that it does not impair the taste and quality of the beverages and foods it contains. We describe further health-related and environmental advantages of glass [here](#).

Our customers range from multinational corporations to small manufacturers in the food and beverage industry. Our [corporate website](#) showcases various successful collaboration partnerships with our customers that have lasted many years.

Consumers can purchase food and beverages in our glass packaging from retailers and wholesalers, or enjoy them in catering trade outlets. We assume that the majority of consumers are located in Europe, but products such as wine bottles are also exported to other continents. For this reason, we do not have any more precise information on the geographical breakdown of our consumers.

End-of-life and recycling

The local glass collection infrastructure, legislation and consumer behaviour are factors that determine what happens to our glass containers after they have been used. In Europe – our largest sales market – glass collection rates vary sharply, as the study by the [Close the Glass Loop](#) initiative shows. As a member of the European Container Glass Federation (FEVE), we raise public awareness about the relevance of glass collection. Alongside factors such as cost, transport systems and export behaviour, the glass collection rate also influences the availability of cullet and, consequently, the mix of raw materials in new products.



Foundations for success

Strategy 2030+

With our Strategy 2030+ – comprising five initiatives – we aim to shape and drive the development of our business. As well as supporting us with tapping potential for growth in our existing business, Strategy 2030+ helps us to develop new business segments.



In 2019, Vetropack launched a comprehensive transformation process based on five strategic initiatives. We have undertaken projects relating to all five initiatives at our locations since the process began. The five main axes denote the business development we intend to achieve: our aims are to enable Vetropack to position itself as a strong player on the market in the long term, and to play a key role in shaping the glass industry.

Flexibility and stability

Our mature corporate culture gives us the flexibility we need to respond to unexpected challenges. Strategy 2030+ has proven its worth in this regard – particularly in the last few years, which were dominated by the coronavirus pandemic and the war in Ukraine. Credit for this is also due to our resilient [business model](#).

Five strategic initiatives – the basis for Strategy 2030

The following overview explains of our five strategic initiatives:

Clearly sustainable

Vetropack pursues a holistic approach to sustainability with the aim of becoming Best in Class in Sustainability in our industry by 2030. Within our Clearly sustainable strategic initiative, we focus on careful use of resources, development of our employees, and legally compliant business practices.

Expand the core

Expand the core defines a strategy that will enable us to maintain and consolidate our positions in our home markets. By achieving these goals, we will move even closer to our customers and position ourselves as a high-quality partner and full-service provider. Expand the core also includes expanding our proven products and services into selected markets.

Value growth

With the Value growth initiative, Vetropack is broadening its proven areas of expertise. We will enter new business sectors and launch new services throughout the value chain for our glass packaging. This will help us to strengthen our customer relationships and generate value.

Drive innovation

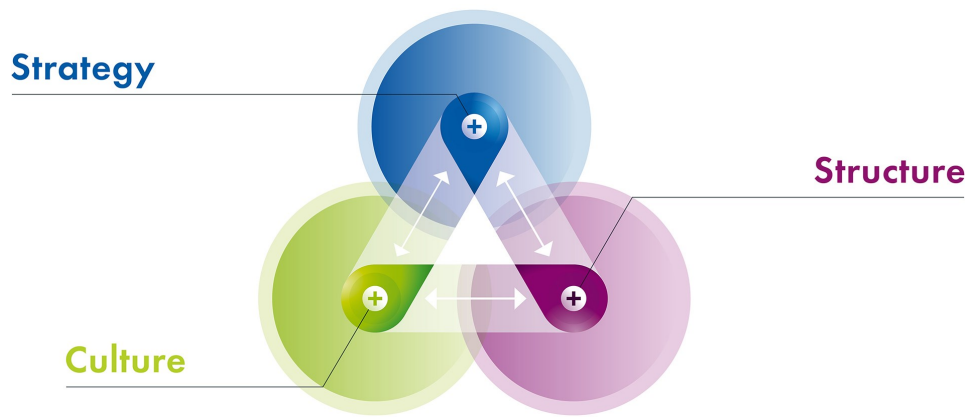
As part of the Drive innovation initiative, Vetropack is strengthening its position as a trendsetter in the glass industry and opening up new business areas with new product and market innovations

Leader in quality

As a Leader in quality, Vetropack gears all its activities towards providing optimal support for the strategy at Group level. This includes a holistic operational excellence approach backed by corresponding structures and processes in sales, marketing, technology and production. Vetropack is leveraging advantage of the opportunities offered by digitalisation and positioning itself as an Employer of Choice.

Corporate purpose and values

We have defined a process to provide a framework for the fundamental transformation of the company and its business model over a period of ten years. As well as strategy (including our corporate purpose), the transformation we seek to achieve embraces our structure – in terms of organisation and responsibilities – together with our culture, which also includes our values.



This is our corporate purpose: 'We make it possible for everyone to enjoy food and beverages in the most elegant, safest and most responsible way.' We create unique, high-quality products and services.

Based on a tradition in the food and beverage industry dating back many years, we understand the needs of our stakeholders and we endeavour to offer products of high quality. Glass is an elegant material; 'elegant' also means offering individual, customised products. The most important requirement that our products must meet is safety: glass comes from natural origins and has an inert structure, so it is a safe packaging for food and beverages. 'Responsible' highlights the fact that glass can be completely recycled an infinite number of times, so it protects the environment.

Our values convey our convictions and principles. They guide our day-to-day work, and the way we relate to one another and to our stakeholders. These are our values:

- Ensuring accountability
- Navigating safely together
- Guaranteeing leadership in quality
- Anticipating change
- Generating trust and confidence
- Exercising environmental responsibility

Risk management

Our risk management identifies and evaluates the material risks for the Vetropack Group, and develops strategic risk reduction measures. We fully integrate ESG risks into our risk landscape.

Identifying and assessing risks

In order to identify the risks that are relevant for the Vetropack Group, we adopt a standardised approach that has undergone multiple internal validations.

As the baseline for determining our risks, we analyse megatrends that could impact our business model. Our analysis takes account of megatrends such as these: global climate targets, our industry's commitment to climate protection, environmental legislation, Industry 4.0 developments such as digitalisation and artificial intelligence, cyber crime, geopolitical conflicts, country-specific financial challenges, and the shortage of skilled staff.

We assign our risks to these categories:

- Strategic risks
- Operational risks
- Financial risks
- Organisational risks

We fully integrate ESG risks – and especially climate-related risks (see: [TCFD reporting](#)) – into the risk categories listed above.

Taking the Risk Manager's preliminary work as the basis, the Management Board updates our risk matrix each year and goes on to define strategies and measures to reduce risks. We assess material risks according to their financial impact and likelihood of occurrence, and we assign them to three risk levels. We set a specific risk level as our target for each of the identified risks. Our Board of Directors then reviews and approves the risk matrix and the measures.

The risks are assessed annually to determine their materiality, and the topics are redefined as necessary. Risks deemed to have insufficient relevance are removed from the risk matrix, while new risks identified as being material for the company are added to the risk matrix.

Material risks

The material risks for Vetropack in the reporting year are listed below:

Cyber risks/cyber attacks

Cyber attacks constitute a considerable strategic risk, given the large numbers of digitalised processes in the company and the dependence of value chains on IT systems and applications. Sensitive company data could also be impacted by such attacks. To counter these risks, we regularly assess the threats to which our networks are exposed and we maintain effective protection and monitoring systems. Our employees also receive ongoing training on dealing with cyber risks.

Compliance risks

Increasing compliance requirements present a growing challenge for companies that operate internationally. Particular challenges arise here in respect of antitrust law, prevention of corruption, data privacy/protection, and export control. To minimise the resultant risks, we maintain strict compliance programmes that include constant monitoring of the relevant regulations and work processes, together with continuous training of our employees on relevant compliance topics (also see the [Compliance](#) section).

Geopolitical risks

Local and global geopolitical conflicts as well as risks related to war (Ukraine and the Republic of Moldova) threaten global supply chains and impact energy prices. One or more such conflicts may trigger increases in the prices of oil and natural gas, in particular; this could confront the glass packaging industry with higher operating costs, causing it to lose competitive edge over other types of packaging. We are responding to these developments with various programmes to boost energy efficiency and decarbonise our plants and production processes, and also by maximising the utilisation of used glass in our production. This approach, moreover, is consistent with our [Climate protection](#) efforts.

Risks relating to strategic partnerships

Strategic partnerships constitute the backbone of our value chain and our sales processes. To protect these partnerships, we continuously maintain and update our supplier and customer portfolios, and we diversify them insofar as this is possible and economically viable. This approach is also consistent with our [Customer satisfaction](#) and [Innovation](#) activities.

Product risks

Faulty materials or processes in the value chain can lead to quality defects in our end products. If defective products reach the market, consumers may be put at risk. In such a case, our customers could be forced to recall the products concerned. For this reason, we maintain complex and certified quality management systems, and we continuously implement comprehensive quality controls (see also [Product quality and product safety](#)).

Climate-related risks

Climate-related transition risks and physical risks have now been added to the risk matrix as new elements. Climate-related risks result from new compliance obligations, customers' requirements, and rising raw material prices. We are addressing these risks with our transition plan and the decarbonisation roadmap so as to achieve the defined climate targets. We continuously monitor regulatory requirements, and implement them promptly where necessary. We analyse physical risks such as flooding, heat or limited water availability on an individual basis for each location. If necessary, we define short, medium and long-term measures. More about this topic can be found in our [TCFD reporting](#), which treats the transition risks and physical risks in detail.



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Stakeholders

We interact with our stakeholders at both local and global levels so as to determine their concerns regarding our business, and to improve ourselves. These exchanges also serve the purpose of identifying the positive and negative impacts of our business activities on the environment and on society. As an active member of (industry) associations, interest groups and research networks, we endeavour to advance the sustainable and innovative development of the glass packaging industry.

We define the stakeholders that are relevant for us on the basis of our business model and the value chain. We use various communication channels and modes of interaction to exchange ideas with our stakeholders and identify their concerns in respect of our company. Collaboration with a variety of stakeholders is a crucial factor in implementing our innovation strategy and achieving our sustainability goals. Accordingly, we expect our suppliers to be ready and willing to innovate and – in return – we offer them a platform for new products. Together with our customers, we develop customised glass containers that benefit their market positioning and enable consumers to enjoy food and beverages safely.

Below, we list the most important stakeholder categories for Vetropack, their concerns regarding our business, and our modes of interaction with them.

| Stakeholders | Concern | Interaction modes |
|-------------------------------------|---|--|
| Shareholders | <ul style="list-style-type: none"> – Transparent information on financial and non-financial goals and targets, KPIs, risks – Definition of business activities and strategy | <ul style="list-style-type: none"> – Press releases – Financial and non-financial reporting – Media conferences, Annual General Assemblies – Trade magazine (Vetrotime) – Website, newsletters, social media |
| Employees | <ul style="list-style-type: none"> – Fair working conditions and secure jobs – Meaningful activities – Positive corporate culture – Opportunities for development | <ul style="list-style-type: none"> – Employee surveys – In-house communication channels such as the employee app, Intranet, employee magazine – Performance reviews – Staff events – Website, newsletters, social media |
| Suppliers | <ul style="list-style-type: none"> – Transparent and fair conditions – Reliable partnerships | <ul style="list-style-type: none"> – Audits – Risk assessments – Surveys on commitment to climate protection – Trade magazine (Vetrotime) – Website, newsletters, social media |
| Customers | <ul style="list-style-type: none"> – High-quality glass containers at fair market conditions – Glass containers that meet defined specifications – Product information – Reliable and punctual deliveries – Innovation, sustainability | <ul style="list-style-type: none"> – Customer surveys – Trade magazine (Vetrotime) – Customer Talks – (Strategic) Account Management – Customer service – Trade fairs – Website, newsletters, social media – Success Stories |
| Consumers | <ul style="list-style-type: none"> – Shelf-stable food and beverages whose flavour is not impaired by the packaging – Safe, sustainable packaging for foods and beverages | <ul style="list-style-type: none"> – Measures to raise awareness about the environmental and health advantages of glass (Friends of Glass) – Website, social media |
| Local communities, nearby residents | <ul style="list-style-type: none"> – Jobs – Local infrastructure – Low-emission glass production, environmental protection | <ul style="list-style-type: none"> – Direct interaction by site managers – Sponsorship of local activities – Website, newsletters, social media |
| Legislators | <ul style="list-style-type: none"> – Economic activities that comply with the financial and non-financial local and international legal provisions and requirements | <ul style="list-style-type: none"> – Financial and non-financial reporting – Comments and statements, for example in connection with our membership of FEVE (the European Container Glass Federation) |
| Trade unions and NGOs | <ul style="list-style-type: none"> – Transparent, safe, secure and fair conditions for employees – Environment-friendly production – Transparent information on sustainability engagement | <ul style="list-style-type: none"> – Interaction by the HR department – Financial and non-financial reporting – Website, newsletters, social media – Events, conferences |
| Associations | <ul style="list-style-type: none"> – Collaboration for an innovative and fit-for-future container glass industry | <ul style="list-style-type: none"> – Events, conferences, trade fairs – Joint (research) projects |
| Media | <ul style="list-style-type: none"> – Transparent information on financial and non-financial performance | <ul style="list-style-type: none"> – Press releases – Financial and non-financial reporting – Media conference, Annual General Assembly – Website, newsletters |

Memberships and associations

We participate in associations and industry federations with the aims of representing the interests of the container glass industry, exchanging know-how, driving innovative processes and products ahead on the basis of cutting-edge technologies, and reducing the ecological impact of glass production.

In associations such as the European Container Glass Federation ([FEVE](#)) and through contact with universities, colleges and research programmes, we monitor current trends in science and technology, and participate in future-oriented projects. One of our key innovation partners is International Partners in Glass Research ([IPGR](#)), the research network that is chaired by Vetropack.

The Vetropack Group's memberships together with a description of our respective commitments can be found on our [website](#).

TCFD report

In 2024, Vetropack assessed climate-related risks and opportunities based on the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). We identified packaging regulations as the most relevant transition risk. On the other hand, by developing innovative thermally tempered lightweight glass bottles for reusable systems, we are in a position to offer packaging that promotes the circular economy and is in line with the EU Packaging and Packaging Waste Regulation (PPWR). One crucial element of our transition plan consists of our greenhouse gas emission reduction targets, which were validated by the Science Based Targets initiative (SBTi) in the year under review.

A key milestone in our engagement for [climate protection](#) was the validation of our climate targets by the [Science Based Targets initiative \(SBTi\)](#) in August 2024. This validation demonstrates that our emission reduction pathway is in line with the Paris Agreement. To strengthen the systematic integration of climate-related aspects into our risk management and overall business processes, we began implementing the requirements of the Task Force on Climate-related Financial Disclosures (TCFD) in the year under review. To this end, we launched a multi-stage process to identify potential climate-related risks and opportunities, and to assess their impacts on our [business model](#). This process involved Vetropack experts in various fields such as sustainability and risk management, as well as the company's entire Management Board. Our strategic actions to address the identified climate-related risks and opportunities, as well as the decarbonisation roadmap, are core elements of our transition plan towards a low-carbon economy.

Governance

Vetropack's organisational structure is based on a clear delineation of responsibilities and tasks. The **Board of Directors** takes ultimate responsibility for defining the company's [strategy](#). They approve our risk matrix as well as the climate-related risks and opportunities, and they define the adaptation and mitigation measures. The Board of Directors also oversees our Clearly sustainable strategic pillar: our climate targets and the transition plan are key elements of this strategic thrust. Therefore, the Board of Directors supervises the company's progress in attaining the climate targets and successfully implementing the transition plan. At least once a year, the Group Sustainability Manager reports to the Board of Directors on behalf of the Sustainability Steering Committee regarding progress with our measures to reduce greenhouse gases. In addition, the Board of Directors approves the non-financial report, including the present climate-related reporting.

Our **Extended Management Board** is responsible for the annual update of the risk matrix, and thus for assessing and managing the climate-related risks and opportunities. The Extended Board defines risk mitigation measures as part of our transition plan. The **CFO**, as a member of the Management Board, participates in the annual update of the risk matrix. He also takes the lead in planning the financial resources required for our decarbonisation roadmap.

Vetropack's **Sustainability Steering Committee**, with the **CEO** as a member, develops and defines the Group's climate targets and the decarbonisation roadmap with the detailed emission reduction measures. This Committee's responsibilities also include monitoring implementation of the transition plan.

The **Group Sustainability Manager** develops and coordinates the Clearly sustainable strategic pillar, including the transition plan. His work also includes setting the climate-related targets, defining the KPIs, and monitoring target attainment. The Group Sustainability Manager and the **Risk Manager** collaborate closely to identify and assess the climate-related risks and opportunities.

The Risk Manager leads the risk management processes for the annual update of our risk matrix, including the climate-related risks and opportunities. He is also responsible for identifying and assessing risks and opportunities in collaboration with the Group Sustainability Manager.

Finally, our local **Managers** are responsible for realising climate protection measures and actions to adapt to climate change.

The **ESG governance** section provides further insights into Vetropack's responsibilities in the area of sustainability.

Strategy

Climate-related risks and opportunities

The TCFD recommendations specify a distinction between climate-related physical risks and transition risks as well as opportunities. Chronic physical risks arise from climate-related weather patterns (such as temperature change and water scarcity). Physical risks triggered by climate change can be event-driven (acute physical risks) such as floods, or may manifest as long-term shifts in climate patterns (chronic physical risks) – for instance, persistently higher temperatures. Physical risks may have financial implications for organisations such as direct damage to assets. They typically offer no opportunities but require protective measures and corresponding financial investments.

The transition to a lower-carbon economy may require changes relating to policy, legislation, technology, or the market economy. Depending on the nature and speed of these changes, transition risks may entail financial risks of varying levels for organisations. Conversely, effective implementation of climate protection measures and successful adaptation of our business strategy can yield climate-related opportunities which, in turn, offer competitive advantages.

The following table shows the identified climate-related transition risks, their impact on Vetropack's business model, and our actions to mitigate these risks. We have identified where in our value chain each of these risks occurs, and over which timeframe. The timeframe was assessed according to the criteria of the Science Based Targets initiative.

Climate-related transition risks

| Transition risks | Impacts on Vetropack | Measures |
|--|--|---|
| Packaging regulation – Policy and legal risk – Value chain: own operations, downstream – Timeframe: near-term and long-term | – Minimisation of packaging and standardisation criteria in regulations may reduce demand for customised bottle design and new packaging – Financial impact: high | – Innovative lightweight glass packaging solutions for reusable systems – Rightweighting our packaging – Drive innovation as our strategic pillar to develop glass packaging in line with regulations |
| Energy price and carbon pricing – Policy and legal risk, also market risk – Value chain: own operations – Timeframe: near-term | – The glass industry is currently dependent on fossil fuels (natural gas, electricity). – Prices of fossil fuels increase and fluctuate. – Financial costs and decreasing competitiveness – Operational disruptions – Financial impact: high | – Implement the SBTi decarbonisation roadmap to reduce greenhouse gas emissions, and therefore costs due to carbon pricing – Use alternative and/or low-carbon energies – Produce renewable energy with solar panels – Increase recycled content to reduce energy demand in production |
| Customer and consumer preferences – Market risk – Value chain: downstream – Timeframe: long-term | – Alternative new packaging solutions with a smaller environmental footprint may adversely affect customers' and consumers' preference for glass – Financial impact: low | – Implementation of the SBTi decarbonisation roadmap – Participation in initiatives such as Friends of Glass to raise awareness of the health and environmental benefits of glass – Offering reusable, lightweight glass packaging in line with the circular economy |

Climate-related physical risks

We carried out an analysis of climate-related physical risks with two different tools. One of these was the WWF Risk Filter Suite, which makes use of a water risk filter and a biodiversity risk filter. This first assessment was complemented by the ThinkHazard! tool, which is based on datasets from the Global Facility for Disaster Reduction and Recovery. This approach enabled us to determine the likelihood of various climate-related natural hazards, providing a starting point for identifying climate-related physical risks. The combination of the two tools delivered a picture of Vetropack's potential exposure to climate-related physical risks.

As the scope of both these tools is limited, we have supplemented the assessment of climate-related physical risks with direct experience from our sites. To validate the results of the first assessment based on the tools mentioned above, we took account of local geographical conditions and the occurrence of past impacts or damage due to climate-related physical risks. The climate-related physical risks relevant to the entire Vetropack Group are shown in the table.

| Physical risks | Impacts on Vetropack | Measures |
|---|---|--|
| Water-related issues – Chronic physical risk – Value chain: own operations – Timeframe: near-term, increasing in the long-term | – Water quality (including water temperature) may become a challenge as Vetropack depends on water for cooling the machinery – Water scarcity may limit water supply in the near-term and trigger stricter regulations in the long term – Financial impact: low | – Comply with local water legislation – Measure water temperature and water quality before discharge into municipal systems – Use water mainly in closed loops |
| Rising temperatures and heat stress – Chronic and acute physical risk – Value chain: own operations – Timeframe: near-term, increasing in the long-term | – Rising temperatures and extreme heatwaves may impair employees' health and entail financial downsides due to restricted productivity – Financial impact: low | – Increase cooling capacity to ensure a healthy work environment for our employees – Provide fair working hours and regular breaks to safeguard employees' health |
| Natural hazards – Acute physical risk – Value chain: own operations – Timeframe: near-term | – Extreme weather events such as floods can disrupt operations and damage the company – Financial impact: low | – Insurance for property damage and business interruption – Protective measures, if not provided by the municipality |

Our plants regularly measure water temperature and quality before discharging water into municipal systems. If necessary, cold water may be added so we can ensure that the water temperature does not exceed the level of 30 degrees that is often required. We minimise water consumption by using water mainly in closed loops.

Due to the effects of rising temperatures, we are currently increasing our cooling capacity and using air conditioning in offices and production sites to reduce our employees' exposure to heat stress. Because conditions in glass manufacturing are inherently hot, we support our employees by providing adequate supplies of fluids and regular breaks for cooling.

Although floods have affected some of our sites in the past, they did not interrupt our production. Due to the potential flooding risk in Pöchlarn (Austria), Hum na Sutli (Croatia) and Nemšová (Slovakia), protective measures have already been put in place by the local authorities.

Additionally, we have analysed any possible risks of wildfires and landslides, but the likelihood of these events occurring is presently rated as very low to non-existent.

Our most relevant climate-related physical risks are also assessed on site by our property damage insurer during 'risk engineering visits'. Without global climate protection measures, we expect the effects of climate-related physical risks to become more severe in the long term. This leads us to view early planning of prevention and adaptation measures as all the more relevant.

Climate-related opportunities

The successful adaptation to climate change and implementation of mitigation measures can open up opportunities for organisations and positively impact their competitive ability. The extent of climate-related opportunities depends on the region, market, and industry in which an organisation operates. Vetropack has identified the following climate-related opportunities.

| Opportunities | Impacts on Vetropack | Measures |
|--|--|---|
| Glass as a packaging solution in line with the circular economy – Products and services – Value chain: own operations, downstream – Timeframe: near-term and long-term | – Although regulations such as the PPWR define packaging reduction targets and ban single-use packaging, Vetropack benefits from these regulatory developments because glass is a material that is recyclable and reusable – Financial impact: medium | – Promote and advertise glass as a recyclable and reusable packaging in line with the circular economy – Manufacture innovative lightweight packaging solutions that can be used as a standard solution for reusable systems |
| Energy efficiency and renewable energies – Energy sources – Value chain: own operations, downstream – Timeframe: long-term | – By generating our own renewable energy, we become more independent and can cut costs – Using cullet as input material for new products reduces the energy demand in manufacturing – New energy-efficient technologies yield financial savings. – Financial impact: medium | – Install solar panels and optimise furnace technology – Make improvements to production performance and invest in new technologies – Rightweighting to reduce material and energy consumption without changing the purpose of the packaging – Increase cullet content to reduce energy demand in production – Source renewable energy (e.g. power purchase agreements) |
| Consumers' preferences for glass packaging – Products and services – Value chain: downstream – Timeframe: long-term | – Glass packaging can be reused and recycled in closed systems – Consumers prefer glass packaging because it is healthy, 'premium', and helps to reduce (plastic) waste – Financial impact: low | – Offer innovative lightweight packaging solutions that can be used as a standard solution for reusable systems |

Our transition plan

According to the TCFD framework, the transition plan is an aspect of our overall business strategy: it includes targets and measures to support the transition to a low-carbon economy. The transition plan contains emission reduction measures, and describes how the identified risks and opportunities impact our business model. As a glass packaging company, we recognise that we be-

long to an emission-intensive industry – and this makes it particularly urgent to decarbonise our business activities.

Brand owners and packaging companies in Europe are faced with new regulations to minimise packaging, aimed at achieving a circular economy and protecting the climate. The most relevant and best-known of these is the EU Packaging and Packaging Waste Regulation (PPWR), which defines requirements for packaging design and packaging waste management: its goal is to reduce the negative environmental impacts caused by increasing quantities of packaging waste. The PPWR aims to promote reuse and recycling while reducing packaging waste at the same time. We have identified this packaging regulation as a transition risk for our business model and for our offering of customised glass packaging. On the other hand, the PPWR harbours opportunities, given that glass is a circular material that can be recycled indefinitely and reused. For example: our innovative lightweight glass can be used as a standard solution for reusable systems, helping us to gain competitive edge in the packaging industry. Bottles made of this glass are around one third lighter than conventional reusable bottles, and are more resistant to abrasion. Bottles produced with this innovative manufacturing process save resources and reduce emissions – so they offer an optimal solution in view of future packaging regulations, as well as supporting the transition to a low-carbon economy. A customer success story about this packaging solution is available to read [here](#). In 2024, moreover, we made a start on developing an industrial production machine for this type of glass packaging. More information about this is available in the [Innovation](#) section.

Offering reusable, standardised glass packaging meets the future requirements of our customers as well as the needs of eco-conscious consumers. Vetropack agrees with [FEVE](#), the European Container Glass Federation, that switching to glass packaging is an effective way to reduce waste and promote the circular economy. We view glass as the optimal packaging material for the journey towards a low-carbon economy. Furthermore, glass offers reliable protection for food, preserves it, and reduces food waste.

To lessen the amount of material used and, therefore, the environmental footprint of glass packaging, we collaborate with our customers and apply the [rightweighting](#) approach. By implementing the rightweighting concept, we minimise the amount of material used while maintaining performance criteria such as quality, strength and design. More on this can be found in the [Customer satisfaction](#) section.

As part of our journey towards a low-emission economy, we have defined climate targets. One milestone along this path was the validation of our [greenhouse gas emission reduction targets](#) by the Science Based Targets initiative (SBTi) in 2024. Vetropack commits to achieve a reduction of 50.4 percent in its absolute Scope 1 and 2 emissions by 2032, compared to 2021 as the base year. We also aim to reduce absolute Scope 3 GHG emissions from purchased goods and services, capital goods, fuel- and energy-related activities, and upstream transportation and distribution by 30 percent within the same timeframe. To reach these targets, we have developed a decarbonisation roadmap containing detailed actions. Our most effective emission reduction measure is the optimisation of our furnaces to make them more efficient, increase the share of electricity they utilise, and thus reduce the use of natural gas. When furnaces are rebuilt, we optimise the processes so their energy efficiency is improved by 10 to 15 percent. In 2024, for example, we modernised one of the three furnaces and the related glass forming machines in [Hum na Sutli \(Croatia\)](#).

By investing in low-carbon energy, installing photovoltaic systems and generating our own energy, we are less dependent on municipal systems and thus on fluctuating energy prices. At the same time, we are able to cut costs as a result of implementing these climate protection measures.

We also aim to achieve an average recycled content of 70 percent in our glass packaging by 2030. Increasing the recycled content in our products helps us to lower the energy demand in production and thus reduce our exposure to volatile energy prices. A recycled content of 10 percent achieves energy savings of around 2.5 percent and reduces CO₂ emissions by about 5 percent (source: [FEVE](#)). More insights into our ambition of increasing the recycled content can be found in the [Resources](#) and [Supply chain management](#) sections. As a further step in 2024, we initiated dialogue with our suppliers regarding their commitment to climate protection. This establishes an important foundation for achieving our Scope 3 emission reduction target.

Business resilience based on scenarios analysis

To gain a better understanding of how the identified risks and opportunities impact Vetropack's business strategy, we conducted a qualitative scenario analysis to assess the resilience of our strategic response to potential risks and opportunities. Scenario analysis can play a key role in strategic conversations about the future – about what might unfold differently from business-as-usual. Scenarios can also help identify indicators for assessing our external environment and recognising how the environment and society might evolve. Finally, scenarios assess the robustness of strategic responses to risk. Climate scenarios are hypothetical representations of possible future climate conditions based on different sets of assumptions about variables such as greenhouse gas emissions, socio-economic developments, technological advances and policy interventions.

When implementing the TCFD recommendations, Vetropack analysed several groups of climate scenarios and decided to follow the Shared Socio-economic Pathways (SSP) scenarios, as these are derived from the findings of the Intergovernmental Panel on Climate Change (IPCC) and are based on various Representative Concentration Pathways (RCPs), as they are known. At the same time, these scenarios also take socio-economic developments into account.

| SSP1 The 1.5 °C pathway | SSP2 Most likely scenario | SSP5 Fossil pathway |
|--|--|---|
| Development of society and the environment <ul style="list-style-type: none"> – Greenhouse gas emissions are significantly reduced, global warming remains limited to less than 1.5°C – Global promotion of sustainable development – Global cooperation supports adaptation to climate change and implementation of mitigation measures – Planetary boundaries are respected – Low material consumption, low energy intensity, responsible use of natural resources, circular economy | Development of society and the environment <ul style="list-style-type: none"> – Greenhouse gas emissions will peak in 2040 and halve by 2100, global warming is likely to range between 2°C and 3°C – Environmental systems experience degradation, with some improvements – Inequality between countries – Slight decline in resource and energy consumption | Development of society and the environment <ul style="list-style-type: none"> – Greenhouse gas emissions keep rising until 2100, global warming exceeds 3°C or 4°C – Severe challenges for adaptation and climate protection measures – Environmental degradation due to exploitation of natural resources and intensive use of fossil energy |
| Impact on Vetropack <ul style="list-style-type: none"> – Strong cooperation (e.g. FEVE, IPGR) to implement measures for adapting to and mitigating climate change – European ESG regulations in force – Produce and use renewable energy – Technological innovations – Societal awareness of glass collection – Glass packaging as a key contributor to the circular economy – Physical risks decrease – Transition risks increase | Impact on Vetropack <ul style="list-style-type: none"> – More scope for brand identity, fewer standardisation requirements in focus – Rightweighting – Glass recycling and single-use packaging – Physical risks increase slightly and affect Vetropack's business success – Transition risks increase slightly | Impact on Vetropack <ul style="list-style-type: none"> – Very little political pressure regarding reusable packaging and climate protection – Low glass collection rates – Supply chain and operational disruptions due to physical risks – Investments in renewable energies and technologies do not translate into market advantage. – Physical risks increase – Transition risks decrease |

We assume that in a 1.5°C scenario, single-use packaging and plastic packaging will be banned and lightweight reusable packaging solutions will become the standard, with customers and consumers preferring glass packaging and particularly innovative lightweight reusable solutions. We also expect that in a 1.5°C scenario, the development of innovative furnaces that favour low-emission technology will be rapid, helping the entire glass packaging industry to switch to low-emission glass manufacturing processes. Rising fossil fuel prices and high carbon taxes could expose us to financial risks in a 1.5 °C scenario. We are therefore reducing these risks by implementing our [decarbonisation roadmap](#). On the other hand, the impact of physical risks will decrease sharply in the 1.5°C scenario.

However, if policymakers, society and economies do not implement effective climate protection measures, causing temperatures to rise worldwide, the impact of transition risks will decrease while the impact of physical risks will be severe. In the fossil fuel scenario, supply chain and operational disruptions would be the order of the day. Society would lack any interest in reusable

packaging and the glass collection rate would be low because the glass would be disposed of and incinerated.

Risk management

Vetropack's risk matrix is updated on a yearly basis. Our Risk Manager has primary responsibility for identifying the company's risks. Vetropack classifies its risks in four categories: financial risks, strategic risks, operational risks and organisational risks. Risks are assessed according to their impact and their probability, adding up to a risk level on a three-point scale.

As Vetropack integrates sustainability-related risks into the company's [risk management](#), close collaboration is in place between the Risk Manager and the Group Sustainability Manager. The Extended Management Board validates the Risk Manager's preliminary work and finalises the risk matrix. Mitigation and adaptation measures for each risk are defined in conjunction with the risk assessment. Vetropack's Board of Directors ultimately approves the risk matrix.

In 2023, our Board of Directors approved the roadmap for the systematic integration of climate-related risks and opportunities into our risk management. Then in 2024, Vetropack undertook a comprehensive identification of potential climate-related risks and opportunities. The starting point was an in-depth analysis of the current risks regarding climate-related aspects. Several workshops were organised for this purpose, involving people from various departments such as Legal and Compliance and Sustainability. We conducted a benchmarking exercise with our peers, and taking the TCFD framework into account. After drawing up a list of potential risks and opportunities, we assessed them on the basis of our current risk classification scheme. Some of the potential risks were rated as very low, so they were not examined in more detail. At workshops attended by various Vetropack experts, we then established where risks and opportunities are most likely to arise in our value chain and determined the timeframes for their expected occurrence. We also assessed the financial and strategic impacts of the risks and opportunities on our strategy and planning.

Metrics and targets

Metrics

In our [Climate protection](#) material topic, we provide in-depth information on our decarbonisation roadmap, including current and planned greenhouse gas emission reduction measures aligned with the SBTi. The development of our climate-related metrics is also presented in that section.

Targets

Climate protection is an integral element of Vetropack's Clearly sustainable strategic pillar. We joined the Science Based Targets initiative (SBTi) in 2022 and submitted our climate targets to the SBTi at the beginning of 2024. The targets were validated in August 2024 and published on the official website in September 2024. The emission reduction targets are explained in detail in the transition plan contained in this report, and in the [Climate protection](#) section.