

# VETRO TIME

**Group  
Strategy 2030**

**Market  
Returnable glass bottles  
on the rise**

**Focus  
The incredible  
made from glass**



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#### **Imprint**

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**Focus:** The coronavirus pandemic has seen many staff move to working from home, so we have tried some resourceful new ideas to compensate for the lack of direct contact this has caused. We recently held a virtual after-work party with attendees invited to bring a drink of their choice along to the video conference. Even here, the benefits of glass were clear to see (or rather taste) as glass packaging preserves the natural flavour of the beverage inside.



## Dear readers,



*The past few months have shown that crises are also an opportunity to come up with new and innovative concepts. Not so long ago, most of us would never have imagined taking part in “virtual after-work drinks. Of course, glass plays an essential part in this new form of social gathering. The moment you touch glass, you get a certain feeling. Nevertheless, I am also looking forward to returning to a culture of conversation and meetings which no longer takes place exclusively through digital channels and to being able to socialise in person again. After all, the official restrictions and requirements have completely changed our social interactions. The strict safety measures are especially tough and stressful for employees working in production, who have a hard, physical job.*

*Here at Vetropack, the year 2020 was also all about the new Strategy 2030, which we are delighted to present to you (pages 6 and 7). The first strategic initiatives already got under way last year, thus laying important foundations for the next steps. We are getting to work on the future while also looking back on the past. For the second time now, we are publishing our Integrated Annual Report exclusively online.*

*The versatility of glass never fails to fascinate me. Take a look at some surprising records and bizarre stories from the world of glass (pages 8 to 12). I personally find the timelessness of glass amazing – for example, the oldest glass container dates all the way back to the second millennium BC, but glass is also a firm fixture of the digital age.*

*We aim to be as environmentally sustainable as possible in our production and want to position ourselves as a “green frontrunner” in the glass industry. That is why we are systematically increasing our use of recycled glass and returnable containers (pages 14 and 15). In company news, we invested in a major furnace renovation project at the Croatian glassworks in Straža in 2020. The new production plant will lead to a comprehensive improvement in product quality and energy efficiency (page 16).*

*We are also adjusting our activities to reduce our environmental footprint in our transport management.*

*On that note, dear readers, I hope you find this issue of Vetrotime a sustainable and inspiring read.*

Kind regards

Johann Reiter  
CEO Vetropack Holding Ltd

Home office

## A virtual toast

*Despite the pandemic, people still have to mark birthdays, company anniversaries and retirements – events that are usually celebrated together. These get-togethers are called “Apéros” in Switzerland, France and Luxembourg. This event combines joie de vivre and enjoyment and is all about catching up with friends, colleagues and relatives. In these times of working from home and strict social distancing, these kinds of events where people toast one another cannot go ahead.*

*Extraordinary times call for extraordinary measures. Why not have the next Apéro via video conference? Inventive companies are providing boxes of culinary treats. In this way, teams have the opportunity to keep in touch despite social distancing rules. The contents of the boxes range from drinks to meals with several courses. The benefits of glass packaging also come into their own here as the natural taste, original aroma and vitamins of the food are preserved by the glass packaging. And, of course, presentation is important too.*

### Nagelberger Glaskunst

## Creative and diverse

Nagelberger Glaskunst is a family enterprise in Alt-Nagelberg in Lower Austria. Glass has been produced by hand in the company's own glassworks for 30 years. Special garden ornaments, drinking glasses and decorations such as unusual vases, dishes and glass animals are extremely popular. As a special treat, Nagelberger Glaskunst also gives you the opportunity to observe the profession of glassblowing up close or even try it out yourself. The company site also boasts a glass park with three ponds, dozens of glass sculptures and shady, relaxing spots to discover. Besides the glassworks and the glass park, those who are interested can experience the history of the craft of glassmaking at the glass museum.

© nagelberger-glaskunst.at



## A charming play of light

Trends come and go, but the beauty and fascination of glass artworks has remained unshaken through the centuries. Glass is also very important in the work of Slovakian artist Silvia Hilkova. She is inspired by the extraordinary properties of glass to create individual glass bowls, vases and decorative objects. The artist combines the elegance and fragility of glass with functional design when creating her unique pieces.

The interplay of light and shapes transforms each piece into an exceptional masterpiece and the artist takes advantage of this unique symbiosis. In this way, the edges and surfaces of her artworks blend with the light into the various hues of the colour spectrum, ensuring that you can never get tired of the masterwork.



© Silvia Hilkova

### Street art

## Rome among historical beauties and street art

In November 2019, the Gallerie Urbane (GAU) commissioned street artists in Rome to enhance the glass containers with works of art in selected districts of the city. The project, which was included in the Contemporaneamente Roma programme and supported by the Assessorato alla Crescita Culturale of Roma Capitale, aimed to create an urban art gallery in public space. The project shows that functionality and beauty are not necessarily mutually exclusive.

This art project underlines the great importance of glass recycling. Each bottle from which new glass packaging is made means that less energy and raw materials are used and less CO2 emissions are produced.



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Strategy 2030

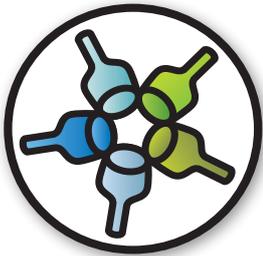
# Getting to work on the future

At Vetropack, the year 2020 was all about the new Strategy 2030, which was approved by the Board of Directors at the start of the year. The company then immediately began to implement it in its operations and has already produced a few highlights with the first strategic initiatives.

### Moving into the future with a broad base

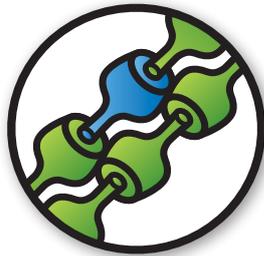
Back in 2019, Vetropack initiated a comprehensive strategic transformation process. The aim of this is twofold: to open

up additional growth potential in the existing business and develop new business models to position the company as a strong market player for the long term and to make



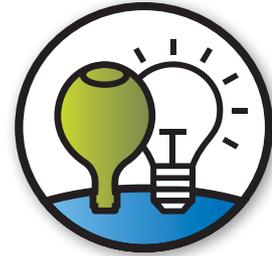
### Expand the Core

Vetropack is basing its strategy on further reinforcing its dominant market positions in its home markets by bringing the company closer to its customers and enabling it to become a high-quality partner and full-service provider. It is also targeting expansion in selected markets.



### Value Growth

Vetropack is extending its areas of activity by entering new business sectors along the glass packaging value chain, focusing on new services that are a logical extension to its existing expertise and enable the company to further strengthen customer relationships.



### Drive Innovation

Vetropack wants to become a trend-setter in the glass packaging industry and is therefore proactively driving innovation. While this does apply to gradual innovation, the focus is also on product and market innovation and on entirely new business models.



a significant contribution to shaping the glass industry. Vetropack was very keen to involve internal and external stakeholders in this process, which is why over 100 employees, as well as customers and external experts from all manner of industries and fields of experience, participated in the development of the strategic foundations. This gave Vetropack

valuable insights and allowed the company to head for the future with a broad-based strategy.

**Five strategic directions for success**

From the open strategy process, Vetropack derived five strategic directions that will shape the company’s further development in the next ten years.



**Clearly Sustainable**

Vetropack is pursuing a holistic approach to sustainability based on two main initiatives:

- continuously reducing the environmental footprint of all business activities and
- improving recycling in the value chain (one-way and multi-trip) and securing access to key resources (primarily used glass).



**Leader in Quality**

Vetropack is aligning all activities so that they support the strategy at Group level to optimum effect. In addition to a holistic approach to operational excellence, this includes coordinated structures and processes in sales and technology/production. The opportunities offered by digitalisation are also to be exploited more effectively across the Group and Vetropack is to be positioned as an “employer of choice”.

These five cornerstones, the rewritten corporate purpose and the more specific corporate values form the basis for implementing the strategy. Vetropack launched the first initiatives in 2020, thus laying important foundations for the next steps.

This article is taken from the Integrated Annual Report of the Vetropack Group.

Vetropack Group’s online reporting 2020





# The incredible made from glass



Glass can be used to make much more than just glass packaging and lights – sometimes the effect can be quite eccentric.

*Glass is one of the oldest materials used by humans. Even in ancient times, natural glass such as obsidian was fashioned into wedges, knives, scrapers and drills. However, people were not yet able to make glass themselves. This was first achieved by . . . well, that's actually anyone's guess! Researchers are still not sure whether the origin of glassmaking was Mesopotamia, Egypt or the Levant. In any case, glass was first mentioned in a text from around 1600 BC from Ugarit, a former trading and cultural centre in what is now Syria. The oldest glass container which can be dated with certainty was made in approximately 1450 BC and was discovered in Egypt. It is a chalice bearing the name of the Egyptian pharaoh Thutmose III and can today be viewed at the State Museum of Egyptian Art in Munich.*

## Glass has a future

Since the time of the ancient Egyptians, glass production has developed rapidly in all directions. Bottles, drinking glasses, window glass and lamp glasses have long been an indispensable part of everyday life, so it is high time to explore and push the boundaries of this transparent material. As a rule, glass cannot be bent and is fragile – the thinner it is, the more fragile. But rules were made to be broken. The

technology company Schott from Mainz, Germany, which specialises in glass and glass ceramics, has done just that by developing ultra-thin glass. It is as thin as a human hair and light as a feather, yet extremely stable and scratch-resistant. It can even be bent to a radius of a few millimetres without showing signs of fatigue, which is very unusual for glass. Researchers see a great future for this material in

information and communication technology – as a cover for flexible displays, as a carrier or separating material and in the production of glass-based micro batteries for the smallest devices and sensors. Glass is timeless but it also plays a key role in the digital age.

However, not everything in research always has to be po-faced. A group of Japanese researchers had a rather strange idea in 2000 when they created the smallest wine

glass in the world. The team achieved this with a highly focused ion beam with a diameter of ten nanometres. The researchers etched structures into a tiny glass blank and hollowed it out with the beam. The wine glass has a diameter of only three micrometres or 0.003 millimetres – a human hair has a diameter of 0.05 to 0.08 mm, so it looks like a cable in comparison.



The glass refiner Sedak from Gersthofen in Germany has bigger fish to fry than these kinds of trivialities. The company produced the largest glass panes ever installed in the world for seating manufacturer Topstar/Wagner's new showroom. In each case, two triple-glazed insulating glass units of around 3 by 19 metres were joined together using just one joint and installed on the long sides of the building in March 2020, thereby creating two glass surfaces measuring an impressive 117 square metres.

The stained glass window in the atrium of the Ramada Hotel in Dubai once exuded oriental grandeur. When it opened for business in 1983, the stained glass window with its floral decorations and birds was the largest of its kind, at 40 metres high and 9 metres wide. The window was designed by the English glass artist John Lawson (1932–2009), and provided the United Arab Emirates with its first ever entry in the Guinness Book of Records. Those were the days: the Ramada Hotel in Dubai closed its doors in 2016 and was demolished. A new owner was sought for the stained glass window but to no avail. It was agreed to put the window into storage for the time being. Whether and where this was carried out remains a mystery.





A normal wheat beer glass holds half a litre of beer. However, the largest mouth-blown wheat beer glass has an incredible capacity of 65 litres, weighs 10 kilograms and is 1.07 metres high. It was made by the Joska Bodenmais glass professionals from the Bavarian Forest. It took a whole team of employees to get the glowing ball of glass out of the furnace and to process it in the glassworks. And the endeavour was even broadcast live on television. The proud owner of the beer glass is Prince Luitpold of Bavaria from the Schlossbrauerei Kaltenberg brewery. He was presented with the huge tankard by the glassblowers.

#### Beautiful views

## Glass bridges and skywalks are spectacular and

Luck and glass – both break easily. It's best not to think about this when you walk across a glass bridge or a skywalk, especially when the world's longest glass bridge at Huaxi World Adventure Park in the Chinese province of Jiangsu does everything to give visitors goosebumps and to make walking on it an unforgettable experience. The bridge is 518 metres long and is located 100 metres above the

ground. Of course, the 35-millimetre-thick floor slabs can bear a weight of 4.7 tonnes, allowing the bridge to carry 2,600 people at the same time. Despite this, it's probably still a shock when special effects cause cracks to form under your feet and the whole thing is accompanied by sound effects too.





The Joska employees set another record for mouth-blown glass with the largest glass egg in the world. Four master glassmakers and two assistants shaped the egg, while two cutters and two painters transformed the record-breaking egg into a work of art. The painting work alone took three days. Only the Easter bunny could fail to be filled with wonder by this egg, as he would need a gigantic Easter basket if he wanted to transport this 1-metre-tall, 20-kilogram monster.

## A special tip

The term “Klein” bottle is not some kind of typo, but a non-orientable surface first described by the German mathematician Felix Klein in 1882. To sum it up in a non-mathematical manner, the interior of the bottle is the same as the exterior. From a mathematical point of view, a Klein bottle therefore has no volume. If you cut a Klein bottle, two Möbius strips are created from it. But this has nothing to do with glass and is just as difficult to explain ...

Anyone who has ever blown into a bottle neck or let their moist fingers circle over a glass rim knows that you can also make music with glass. However, the fact that the latter principle of sound generation was used for two serious instruments has been

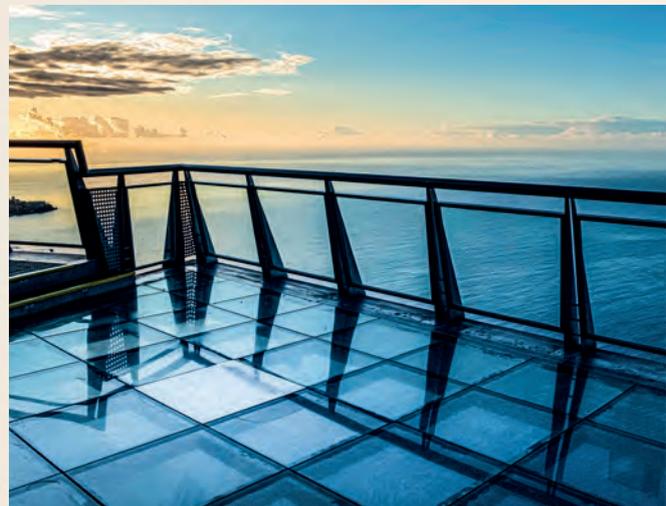


## brehtaking in many ways.

The highest glass bridge in the world is also located in China. The Zhangjiajie Grand Canyon Glass Bridge in a national park in the southern Chinese province of Hunan is “only” 430 metres long. To make up for this, the construction made of 99 transparent glass elements hangs 300 metres above the ground. You can experience for yourself just how high it is – anyone brave enough can use the bridge as a platform for a bungee jump.

Austria’s highest suspension bridge in the Alps on the Dachstein glacier is not made of glass, but steel. However, the 100-metre-long construction comprising 30,000 individual parts leads to a staircase to nowhere. Consisting of 14 narrow steps, it ends at a glass platform through which you can look unobstructed 400 metres into the abyss. Five tonnes of material were used, but only four people at a time can go on the daring walk. If that isn’t enough for you, you can venture along the Dachstein Skywalk. The glass platform hangs from the 250-metre vertical rock face of the Hunerkogel and offers a spectacular view of the Alps.

The Grand Canyon Skywalk in the US opened in 2007 after four years under construction. The horseshoe-shaped platform has a glass railing and glass floor panels. Both elements were manufactured by specialist companies in



Germany. While standing on the structure, which weighs in at 462 tonnes, visitors can marvel at a breathtaking view over the Grand Canyon all the way to the Colorado River about two kilometres away and 1,100 metres below.

The Cabo Girão Skywalk on the Portuguese island of Madeira was modelled on the Grand Canyon Skywalk. Fitted with a glass floor since 2012, the skywalk is located on the second-highest cliff in the world, at 580 metres. You feel like you are soaring weightlessly over the sea, free as a bird.

forgotten. In a glass harp, different-sized drinking glasses filled with water are actually placed in several rows and tuned. The glass harpist creates the tones by making circular movements with their finger on the glass rims. There are around 400 classical and 400 modern compositions for the glass harp, including Mozart's quintet for glass harmonica, flute, oboe, viola and cello. Strictly speaking, a glass harmonica is not the same as a glass harp even if the tones are produced according to the same principle. However, the glass harmonica, invented by the American statesman and universal scholar Benjamin Franklin, involves pushing the glasses into each other, mounting them on an axle and rotating them using a foot pedal. Both instruments are rarely played these days.



© MA Braggie, p.z.c.



© Blanka Matragi

You need an exceptional dress for a festive occasion. However, very few women would think of wearing a glass dress. Czech designer and fashion designer Blanka Matragi is an exception to this. When attending the 11th International Glass Symposium 2012 in Nový Bor, she brought along dresses she had designed herself and which specialists had made from glass using various techniques. The Orchid model (pictured) is in line with the artist's nature-inspired style. The Op Art model is inspired by the designer's first ready-to-wear collection.

The renowned Czech sculptor and glass artist Vlastimil Beránek has come up with something special for his appearance at the Czech pavilion at the World Expo 2021 Dubai, scheduled to begin in October. The light-blue cast glass sculpture of Venus is 88 centimetres in diameter and weighs an impressive 243 kilograms. The starting material was 350 kilograms of 15% lead crystal topaz, which was melted at a temperature of 830°C and then processed. Creating this unusual Venus took 18 months. The artwork from Bohemia is currently the largest completely polished glass sculpture in the world.



© uschoma.cz

## Transport management

# Climate neutrality requires cooperation

Vetropack is working with the Elogate transport management platform to reduce its environmental footprint. The platform shows where the company currently stands and what impact has been made by which improvements.



As one of Europe's leading manufacturers of glass packaging, Vetropack supports the European Green Deal. "By its very nature, glass contributes to sustainability," says Ulrich Ruberg, Head of Corporate Procurement. "This is because it can be recycled and is made from natural raw materials." But, of course, there is still lots more Vetropack can do. In order to change processes and activities in a way that is geared toward the ultimate goal of achieving climate neutrality, the current situation needs to be analysed first. This is the reason why, since 2014, all shipments to customers across the Group have been handled by a transport management platform from start to finish, i.e. from the invitation to tender right through to invoicing.

### Precise data

This creates a huge pool of data, as 70,000 deliveries are made to customers every year. A further 40,000 shipments are collected by the customers themselves. Vetropack products cover a distance roughly equivalent to a thousand times the circumference of the earth each year. "Thanks to Elogate, we can establish exactly what distances we travel, how often freight was shipped, at what cost and with what level of CO2 emissions," explains Ulrich Ruberg. "This means we can work out the size of the environmental footprint for each freight shipment using a standardised calculation method." The European standards approved by

Vetropack for the vehicles' combustion engines are factored in, for example, so we know exactly how much CO2 they emit and how efficient their engines are. This mix of data can then be used to calculate the emissions a particular vehicle produces over a given distance. "And thanks to all this data, we can figure out how to reduce our environmental footprint," says Ulrich Ruberg.

### A long journey with many companions

However, Vetropack is reliant on the entire logistics chain getting involved – from suppliers to customers and right through to freight carriers. Ulrich Ruberg: "We could, for example, optimise cargo capacity utilisation, further limit the approved engine standards or opt for different drive systems such as hydrogen or electricity," says Ulrich Ruberg. "But the customers then also need to be able to work with these new pallets, the lorries need to be available in sufficient numbers and there needs to be infrastructure in place for new technology." He adds that policy plays an important role in all efforts to achieve climate neutrality, explaining that it must create the necessary framework conditions for a paradigm shift within the industry. As he points out, "We can only make a great leap forward when the right infrastructure is in place."



## Modern packaging solutions

# Returnable glass bottles on the rise

*Glass is equally suitable for single- and multi-use purposes, and a returnable glass bottle can be reused more than 40 times. The debate surrounding the environmental impact of packaging is leading to a rise in demand for this kind of glass bottle.*

Vetropack strives to be as environmentally friendly as possible when manufacturing its products. The large amount of energy required in the glassmaking process poses a particular challenge – one that Vetropack is tackling by continuously modernising its manufacturing facilities. However, it is also systematically increasing the use of recycled glass and returnable containers in order to conserve natural resources as much as possible.

The proportion of returnable glass bottles in circulation varies considerably between different European countries. Generally speaking, these reusable containers are predominantly used in the catering industry and in specialist beverage retail, where the biggest returnable glass market is that of amber glass beer bottles. In catering however, white bottles still reign supreme as they really help to showcase the colourful variety of beverages they hold. At home or in restaurants, people can use them to show off their refreshing thirst-quenchers in an attractive glass display on a beautifully laden table. In some countries, food retailers are also increasingly reverting to returnable bottles.

The main requirement of one-way and returnable glass containers is fundamentally the same: ensuring that the product reaches the consumer safely. Returnable glass packaging is subject to considerable strain due to the continuous refilling and washing it undergoes. However, Vetropack proved that this doesn't necessarily mean a heavier composition is needed when it launched the world's first returnable bottles

made from lightweight glass on the Austrian market in 2019. This hardened glass packaging is called "Vetropack Improved Performance Glass", or VIP Glass for short (see Vetrotime 2/2019). The unique requirements of a returnable glass container have to be taken into account right from the design phase, as the two recently developed custom designs for the Austrian and Croatian markets demonstrate.

## Small and mighty

Following the successful introduction of milk in one-way glass bottles in spring 2018, the Austrian dairy market leader Berglandmilch switched to refilling reusable glass containers at the beginning of 2020. This is the first time that milk has been available in returnable glass bottles at retailers throughout Austria in some 20 years. The range of milk products has been continually expanded in line with consumer demand.



We've all heard the saying "small but mighty", but Berglandmilch's Schördinger brand has decided that "small and mighty" is far more appropriate for its new half-litre returnable glass bottle, which is manufactured at Vetropack's Austrian plants and was recently launched with Austrian food retailers. This successful collaboration between Vetropack and Berglandmilch is helping to drive this environmentally friendly milk packaging solution forward.

**Considerable reduction in used glass**

The Slovenian company Radenska produces natural mineral water and a range of other refreshment drinks. The products are made using water from high-quality sources. Radenska is committed to retaining these sources for future generations and achieving complete carbon neutrality at its production facilities by 2030.

The introduction of 0.25-litre returnable bottles in white and green glass has led to a substantial decrease in environmental pollution and reduced the company’s demand for the necessary primary raw materials significantly. Radenska estimates that this will equate to



2,000 fewer tonnes of used glass over the next three years. Vetropack Straža manufactures the quarter-litre returnable bottles in white and green. The fact that protecting the environment is an issue close to Radenska’s heart is reflected in the three engraved hearts on the shoulders of its bottle. The company sees the introduction of the 0.25-litre returnable bottles, which are predominately used in the catering industry, as an important step forward.

At the end of their life cycle, the bottles are sent for recycling, meaning that the glass remains part of the closed material cycle and will be used again.

**Trio of awards for Vetropack Austria**

*The Austrian State Prize for Smart Packaging is Austria’s oldest national accolade. The aim of this award is to highlight modern solutions in the packaging sector that meet environmental criteria while also fulfilling high functional and design requirements.*

The one-litre returnable glass bottle for the Radlberger Limö brand – produced at the Pöchlarn plant for Egger-Getränke – was awarded the Austrian State Prize for Smart Packaging 2020 in the Branding category for brand development.



The 0.5-litre returnable glass bottle for Vöslauer is the first half-litre returnable glass bottle on the Austrian retail market. Already awarded the Austrian Ecolabel, it has now also received acclaim as an “Excellent Packaging Solution 2020” at the Austrian State Prize for Smart Packaging.



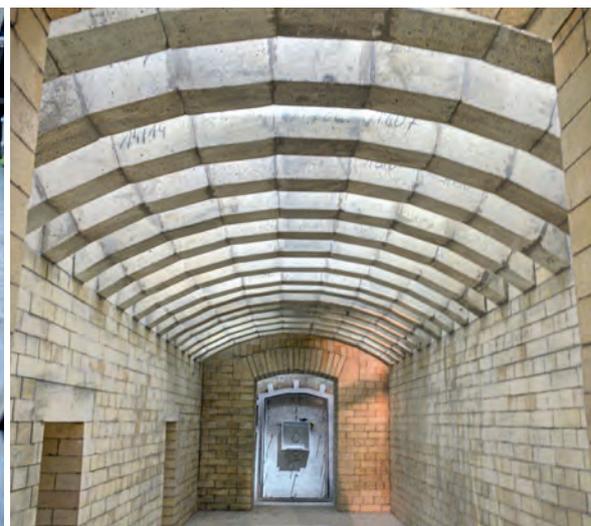
The one-litre returnable glass bottle for Berglandmilch, produced at Vetropack’s Austrian plants, was also nominated for last year’s Prize in the B2C category for consumer packaging.



Furnace repair in Hum na Sutli

# The next level of performance

The new coloured-glass production facility at the Croatian Vetropack plant in Hum na Sutli has not only resulted in a significant increase in capacity, but also allows for better working conditions, higher productivity and lower energy consumption. This strengthens the competitiveness not only of Vetropack Straža, but also of the entire Group.



The first glass drop left the furnace on 8 February 2021. This marked the end of a very intensive period – and huge investment – for Vetropack Straža. Before the furnace repair, the plant had undergone numerous infrastructural works, which involved major changes to the layout of the plant and the site plan of the entire plant premises.

In September 2020, the last and most important phase of this challenging project began by discharging the glass melt from the old furnace. The construction works took 8.5 weeks, during which time over 200 external workers were on site at the plant every day. Despite the highly complex organisation of the work and the special coronavirus restrictions which this project needed to comply with, the works were completed on time and without incident. The main contractor working on the project was Horn.

*“A furnace repair is always a challenge. Due to the 2020 Covid-19 restrictions, the work was even more challenging than usual. Our colleagues in Hum na Sutli have done a fantastic job. Firing up the new furnace has elevated Croatia to the next level of performance. As a result of this investment project, the plant in Hum na Sutli will be able to produce roughly 1,000 tonnes of glass a day in future.”*

*Johann Reiter, CEO*

The new furnace has a larger capacity and an additional fourth production line. With three furnaces and twelve lines in total, Vetropack Straža currently achieves a capacity of 960 tonnes of glass containers per day. Despite the increase in capacity of the new furnace, its energy consumption is significantly less than its predecessor, which confirms Vetropack’s leading position in protecting the environment.

## The most important facts at a glance

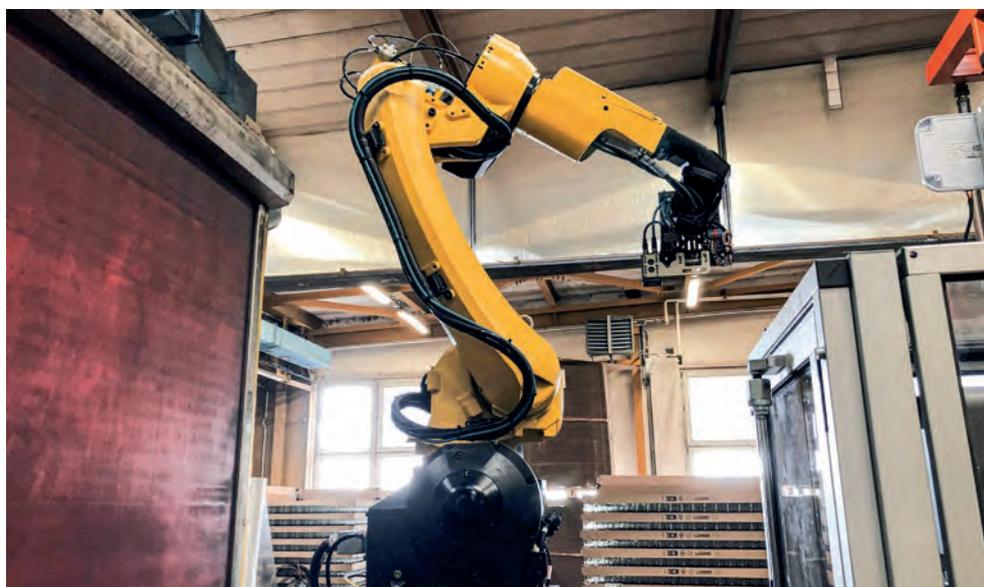
|                            | Old furnace         | New furnace          |
|----------------------------|---------------------|----------------------|
| Capacity                   | 230 t/d             | 360 t/d              |
| Number of production lines | 3                   | 4                    |
| Furnace surface            | 82.8 m <sup>2</sup> | 126.7 m <sup>2</sup> |
| Energy consumption         | 960 kcal/kg         | 840 kcal/kg          |

## Vetropack Moravia Glass

# New labelling machine at Kyjov plant

*The new labelling machine at Vetropack's Kyjov plant carries out the automatic labelling of pallets that are ready for dispatch. Thanks to a unique number, the location of the pallet can be traced at any time. This investment is a further step in the automation strategy of the Vetropack Group.*

Every pallet leaves the Vetropack Moravia Glass plant with a unique number (SCCC) printed on a label. These numbers allow our customers to identify the goods, and the concept greatly simplifies working with pallets.



The production of glass packaging is part of the process in the food industry, at the end of which the customer receives a product that meets strict safety criteria. That is why Vetropack Moravia Glass has implemented a precise identification system for its products. It is fully automated by robots that have been introduced for the application phase, where labels are adhered to the outside of the pallet film. This means the customer's requirements for an external label can be met, which enables the pallets to be handled seamlessly in automatic warehouses and eliminates possible problems, such as displaced or lost paper labels and transport stoppages in the warehouse.

### Better quality thanks to automation

Speed, efficiency, accuracy and time and money savings are just some of the advantages of the robotic set-up in Kyjov. The station carries out printing and automatic marking, verifies labels and communicates with the line and overall system. The robot applies two identical labels to the front and side of the pallet with the possibility of placement at multiple levels using a robotic arm. The stations are operated by robots from Fanuc and are installed behind two foil devices; a backup desktop printer is also included in case of failure. Automation saves human resources, which we can now use more efficiently, for example in quality control.

The label contains the pallet number, information about product type, when it was manufactured and in which plant, there is also space for customer information. "During loading we

scan pallets and record when and where it was shipped. This process is called traceability. Marking pallets with a unique 18-digit code (serial shipping container code (SCCC)) in this way makes it possible to identify each pallet unit at all times if needed. We know where and when the pallet was shipped and, if necessary, we can also ensure its return from the market," explains Peter Pekara, Logistic Manager at Vetropack Moravia Glass and Vetropack Nemšova.



### Automation is gaining traction throughout the Group

The labelling machine installed at the Kyjov plant is considered a pilot project for the Vetropack Group. In the first half of 2021, Vetropack Straža will follow and the labelling machine is also to be used at the new plant in Boffalora sopra Ticino in 2023.

# Renovating the white glass line at the Pöchlarn plant

*The replacement of the white glass line at the Pöchlarn plant took just 28 days to complete. On the one hand, the comprehensive modernisation boosts line utilisation and expands white glass production capacities. On the other, it provides improved ergonomic conditions for the line staff and, not least, increased occupational safety.*



A brand-new utilisation concept for the white glass lines in Pöchlarn and Kremsmünster was developed in order to make maximum use of the two Austrian white glass furnaces and optimise line utilisation at both plants. In Kremsmünster, the line was also converted for triple-gob production, meaning that items with large batch sizes can now be moved from Pöchlarn to Kremsmünster. The Pöchlarn white glass line has been redesigned so that in return, suitable items can now be relocated from Kremsmünster to Pöchlarn. These changes enable us to better meet the increasing demand for white glass.

## Reconstruction of feeder

The large-scale renovation work on the white glass line in Pöchlarn began on 21 September 2020 with the demolition of the fireproof material on the feeder and the entire infrastructure. The fireproof material on the feeder was replaced, equipping it for the higher tonnage required. The line's machine bed was lowered, which also adjusted the incline of the annealing furnace. Working on the line is now much more ergonomic for the employees.

## Occupational safety increased

The installation of a blank side barrier system minimises the risk of reaching into the station while it is in operation. The good view of the operating status remains unchanged. The Pöchlarn plant is the first in the Vetropack Group to be equipped with this safety system. The installed lubricating robot is the newest of its kind.



## Modernisation at the cold end

Four new Symplex testing machines recognise the binary mould code of the glass containers via the barrel camera. Pleats and bubbles on the body of the container are easier to detect and any mould-related errors are reported to the hot end using real-time images. An update of both Check+ testing machines, four glass orientators and new glass scanners at the packer to detect shards of glass on the pallet complete the new infrastructure on white glass line.



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## Chic

### Where health meets style

*Zdravo Organic gets the best out of nature for its juices. And they want you to see it. The gentle curves of the white 200 ml bottles by Vetropack Straža create a sophisticated look.*

Health consciousness has grown enormously in recent years, a phenomenon reflected in the success of food and drinks producers who focus on making natural products. One of these is Zdravo Organic. With Zdravo meaning "healthy", it does exactly what it says on the glass. Based in Selenča in Vojvodina, the company only uses the highest-quality local fruit and vegetables for its juices, conserves, pickles and ajvar sauce, avoiding the use of additives and preservatives.

The best packing medium for products like this is glass, which is why Zdravo Organic only uses glass bottles for its juices. The centrepiece of the family of bottles we make for Zdravo Organic is the new 200 ml juice bottle with twist-off cap. It is just as chic and compact as its older, larger siblings, the 314 ml jar and 750 ml bottle, but its gentle curves give it a particularly sophisticated look. Bon voyage, beautiful bottle – Zdravo products are loved around the world and can be found as far afield as Canada and China.

## Balanced

### Pleasure of life

*Azienda Agricola Caudrina brings the liquid sun of Piedmont to wine connoisseurs. Winemaker Romano Dogliotti places great value on having aesthetically pleasing packaging for his fine wines – which is why he is working with Vetropack Italia.*

The fertile, sunny Piedmont region has always been known as an outstanding terroir for Muscat grapes. Here, near Asti, is where Romano Dogliotti works. The owner of Azienda Agricola Caudrina is almost obsessed with creating the most sumptuous wines possible. The shining stars of his collection are the Moscato d'Asti La Caudrina and Asti Spumante La Selvatica DOCG. These sweet yet gently acidic sparkling wines, which pair perfectly with tapas and light summer dishes, are an ode to the pleasure of life.

It has been almost 20 years since Vetropack Italia's Milan glass works produces the 750 ml custom bottles for Azienda Agricola Caudrina. The cuvée coloured bottle is perfectly elegant, featuring balanced proportions and a decorative relief. But it also has another subtle level. Each part of the design comes together to form a beautiful frame for the attractive label, designed by the artists Alessandro Lupano and Romano Levi.



### Natural

## A match made in heaven

*Vincentka healing water was bottled in ceramic vessels until 200 years ago when it switched to glass. To celebrate this anniversary, Vincentka has created a very special, limited edition bottle.*

To say Vincentka is a mineral water is an understatement. The premium product is actually a medicinal healing water. It comes from Luhačovice, the largest and oldest spa town in Moravia, whose ten natural healing springs draw visitors from all over the world. The water is suitable for drinking and inhalation therapies for a variety of illnesses, but health-conscious people also enjoy its many benefits day-to-day.

Apart from a brief interlude, Vincentka has been bottled in glass since 1820. The relationship between this special water and glass is therefore now 200 years old. Vincentka is celebrating this anniversary by working with Vetropack Moravia Glass to produce an anniversary edition bottle that is considerably darker and greener than its traditional counterpart. Some 400,000 of the anniversary bottles have been manufactured to celebrate this natural pairing. Because just like the healing water, glass too is synonymous with health and high quality.

### Majestic

## Liquid gold

*With its glass packaging for Aznauri brandy, Vetropack Gostomel is proving just how much a bottle can reflect the image of a brand and a sophisticated tippel.*

The name Aznauri comes from the ancient honorary title, which was awarded for special merits. Equally illustrious and exalted is the brandy of the same name, distilled by the Ukrainian company Global Beverage. In keeping with the world of nobility, the brand's image is dominated by majestic lions. A unique drink like this needs a very special bottle, just like the one made by Vetropack Gostomel.

To show off the dark gold, shimmering colour of the brandy, the 0.25-, 0.5- and 0.7-litre bottles are made from thick, colourless glass. The combination of the curves and convex engraving on the front is stunningly harmonious. Two grand lions holding a crown above the letter A reflect the nature of the drink: strong and proud, yet unique and self-sufficient. No question, this bottle really does boost the enjoyment of genuine connoisseurs.



At a glance:  
the latest products



### Elegant

## The best of the best

*The wineries that form the "Österreichische Traditionsweingüter" association have developed a special classification. The highly customised bottles for the "Erste Lage" wines are produced by Vetropack Austria.*

Austria's winegrowing regions are incredibly diverse. The varying soil compositions and microclimates mean that even neighbouring vineyards can produce very different wines. Members of the "Österreichische Traditionsweingüter" association have put a great deal of passion and expert knowledge into determining how tiny details about a vineyard can influence the quality and identity of its wine.

The association has developed a classification system that distinguishes between "Klassifizierte Lage" (similar to appellation contrôlée), "Erste Lage" (similar to Premier Cru) and "Grosse erste Lage" (similar to Grand Cru). Vetropack Austria has developed Rhine wine bottles for the "Erste Lage" group that immediately reflect the special quality of these wines. The "Erste Lage" logo is made in glass relief, like a hallmark, while the shoulder area of the bottle is an elegant cuvée colour. The wineries can then choose between a swisstype thread or cork finish – because with wines, it's always "to each their own".



*At your request, we can develop and produce the perfect customised glass packaging for you: coloured and finished – the choice is yours.*

### No-nonsense

## Genuine and bold

*The outstanding, award-winning whiskey produced by Ireland's Royal Oak Distillery arrives on the shelves in bottles made by Vetropack Italia – because an extraordinary product deserves an extraordinary look.*

The up-and-coming Royal Oak Distillery in south-east Ireland produces only handmade whiskey. It makes all four Irish varieties of the spirit under its "The Busker" label: single grain, single pot still, single malt and blend Triple Cask Triple Smooth. The intense essences and sweet aftertaste of the whiskeys recently earned the company recognition at the renowned L. A. Spirits Awards.

The distillery's commitment to combining tradition with adventurous new directions is reflected in the bottles for the "The Busker" range. Their clean lines and minimalist rectangular shape represent the Royal Oak Distillery's genuine, no-nonsense approach, while the strong shoulder of the bottles highlights the company's determination to follow its own path. The bottles are produced in five sizes from 375 to 1750 ml at the Vetropack glass works in Trezzano sul Naviglio. Why would an Irish distillery want its bottles made all the way over in Italy? The answer is simple: the Royal Oak Distillery is owned by Illva Saronno in Saronno. And that is very close by.



Perfectly protected

## Why glass is the best packaging for olive oil

*High-quality olive oil and glass packaging go hand in hand. Glass is one of the most effective packaging materials for protecting fine products, and glass packaging also preserves the unique flavour of delicate olive oil.*

Labelled "liquid gold" by the ancient Greeks, olive oil is an iconic European product and is considered a staple of a healthy Mediterranean diet.

Whether it's used as part of a marinade or as an ingredient in a light summer salad – the versatility of olive oil makes it one of the most important basic foodstuffs in the world.

The differences between olive oils derive from the type of olives used and the oil extraction process. The term "extra

virgin olive oil" is used exclusively to describe pure olive oils whose juice comes directly from the fruit harvest. Only the first harvest of the year can be labelled "extra". The pure olive oils must be cold pressed in order to retain their natural flavour bouquet. They are free from any chemical additives and are both produced and stored to the highest quality standard. No packaging material is better suited to this product than glass, which prevents any transfer of aromas and preserves the taste, smell, colour and texture of the oil.

### **An equal partnership**

Glass is made from ingredients found in nature. Glass is pure. It does not react with other materials and can be reused without any reservations. Glass is inert, meaning that products that come into contact with it do not change. This is a strong factor in its favour when it comes to packaging carefully produced food-

stuffs such as olive oil. Glass is one of the most effective packaging materials for protecting products as it forms an almost complete barrier that prevents any deterioration in quality.

Olive oil in glass contains the lowest number of peroxides compared to olive oil in other packaging, proving that glass packaging prevents oxidation. Dark glass is

often chosen for high-quality olive oils. So aesthetics and functionality go hand in hand – the darker the glass, the better the light protection.

A survey conducted by Friends of Glass in 2020 showed that

around 60% of consumers in Europe prefer oil in glass bottles these days.

***"The quality of the oil may depend on the olive tree, but glass plays a part in preserving its quality while in storage."***





**Contact addresses**

**Sales**

**Switzerland**

Phone +41 44 863 34 34  
marketing.ch@vetropack.com

**Austria**

Phone +43 2757 7541  
marketing.at@vetropack.com

**Czech Republic**

Phone +420 518 733 111  
marketing.cz@vetropack.com

**Slovakia**

Phone +421 32 6557 111  
marketing.sk@vetropack.com

**Croatia, Slovenia,  
Bosnia and Herzegovina,  
Serbia, Montenegro,  
North Macedonia, Kosovo**

Phone +385 49 326 326  
prodaja@vetropack.com

**Ukraine**

Phone +380 4439 241 00  
sales.ua@vetropack.com

**Italy**

Phone +39 02 458771  
sales.it@vetropack.com

**Other Western European  
countries**

Phone +43 7583 5361  
export.west-europe@vetropack.com

**Other Eastern European  
countries**

Phone +420 518 733 341  
export.cz@vetropack.com