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VETRO TIME

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Dear customer,

This edition of Vetrotime is the first of the three issues now planned per year, starting from 2013. That represents a good 33 per cent increase – in terms of circulation, that is. As far as informational value is concerned, it is definitely a 100 per cent improvement (and more, if the response from readers and the conviction of our editorial team is anything to go by – and I believe it is). Joking aside, the advantage of publishing three issues per year is that we will be able to keep readers more up to date with our news, so at the height of summer you will no longer have to read about events taking place in the snow. This is the “Spring” edition, with “Midsummer” and “Autumn/Winter” issues due to follow. In keeping with the springtime theme, herbs and plants play a prominent role in this edition: herbs preserved in glass to offer a rich variety of aromas all year round, and miniature plant worlds – also packaged in glass of course. Prepare to be amazed.

It has now been over a year since Tihomir Premužak took over the management of our subsidiary in Croatia, so it is a good time to reflect on the past twelve months and take a look ahead to the future: despite having familiarised himself with the role of “the boss”, it has not quite become routine for him yet.

This issue also focuses on our new products, with a range covering virtually all segments – beer, wine, soft drinks, milk, and so on. From page 5 onwards you will be provided with an overview of our product innovations.

Sustainability is another key topic that cannot be left out of this issue, since lightweight glass is carrying more and more weight in this respect (in terms of importance, of course).

...so if your curiosity has been piqued, just read on – I hope you enjoy it.

With kind regards,

C. Cornaz
 Claude R. Cornaz

SUSTAINABILITY

Responsibility towards the environment

Glass may be an “old” packaging material, but it is still by no means old-fashioned. On the contrary, the fact that glass is 100% recyclable makes it the ultimate sustainable packaging material, bringing it right up to date with the trends of today.

Vetropack Group’s corporate philosophy places great emphasis on responsible treatment of the environment. As a pioneer in glass recycling, Vetropack first began reusing used glass in Switzerland back in the 1970s. Nowadays Vetropack consistently champions glass recycling at all its sites, thus reducing its impact on the environment. In doing so, it is also making a significant contribution to the reduction of waste.

Decreasing weight to become even more sustainable

Thanks to lightweight glass technology, it is possible to produce thin-walled glass containers which, in terms of stability and robustness, stand up extremely well in comparison to conventional glass packaging. All the typical characteristics of glass, such as its high-quality look and feel, 100% recyclability and neutrality with regard to contents, remain unchanged even at extremely low weights. The reduced weight of glass can now help cut transport costs – or to put it another way, the same quantities of glass can be used to produce more bottles.

Exemplary packaging

It was for good reason that Vetropack Austria GmbH was awarded the state prize for exemplary packaging in 2012 for its newly developed wine bottle range made from lightweight glass. Thanks to lightweight glass technology, the 1 litre bottle is 80 grams lighter than before, while the 0.75 litre bottle is 50 grams lighter and the 0.25 litre bottle is 24 grams lighter. This means an annual reduction in the amount of material used of over 1,700 tonnes of glass, which is the equivalent of the weekly output of an average furnace and reduces CO₂ emissions by almost 1,200 tonnes per year. Vetropack Group offers a wide range of containers made from lightweight glass, including preserve and condiment jars as well as wine, beer and syrup bottles.



What is the link between the natural products milk and honey, beer and wine, spices and vegetables? – Their glass packaging of course!

MORE THAN A MOTTO

Honey in glass

Every year Vetropack's financial reports (semi-annual report and annual report) are themed: in 2012 the motto was "Honey in glass".

Honey in a jar. Golden yellow and sweet, packaged in transparent glass that preserves its high quality and unique taste until honey-lovers can no longer resist it. Busy bees pollinate around 80% of our flowering plants when collecting nectar. This ensures the continued survival of flora and fauna, time and again – just as glass is melted time and again to make new glass packaging without any detrimental effect on its quality.

Vetropack has therefore dedicated the title page of its semi-annual report for 2012, Christmas cards for 2012/2013 and its annual report for 2012 to the theme "Bees – Honey – Glass", because sustainability and nature are linked.



**UNUSUAL****“Tea” in a glass**

Tea or not tea? That is the question. The products of the Czech company NoTea are somewhat unusual.

In 2006, a new product was launched on the market: roasted tea in a glass. What looks from a distance like jam is, in fact, a drink. This natural product, made from large pieces of fruit, spices, water and a little sugar, is quite unique. A special manufacturing process intensifies the fruit flavour of the “tea”. The fruit is roasted, which caramelises it. This releases the full fruity flavour and also results in a strong colour when water is added. You pour over 250 ml of hot water per portion – or to make a refreshing cold drink you use cold water – and it is ready to enjoy immediately.

An eye-catcher even in standard glassware

The roasted tea comes in two sizes, either a portion-sized 60 ml glass or a bigger glass that holds 425 ml. The small glasses are produced by Vetropack Austria, and the larger ones at the Vetropack plant in Kyjov, Czech Republic. Both are standard glasses and are neither embossed nor a special shape. There’s no need for any of that, because the product is eye-catching enough in itself and is displayed to best effect in a simple, unadorned glass.

ON THE DOT**White and fresh**

The South Bohemian buttermilk made by AGRO-LA can be found in chill cabinets in the Czech Republic safely packed in Vetropack bottles. The bottles for the milk are made at the Czech or Slovakian plants, depending on the availability of capacity.

The most striking feature of the glass packaging for this dairy product with the slightly sour flavour is the dots of different sizes round the neck of the bottle. On the previous model there was a grid pattern. Switching to dots is intended to emphasise the freshness of the product. The dots also make it easier to grip the bottle firmly so it can be shaken before use. In addition to these 330 ml flint glass bottles with the rather attractive name “Hello”, Vetropack also makes individual 200 ml glass yoghurt containers for the same customer.

Milk in glass

More and more dairy products are once again found in glass packaging. This benefits both the consumer and the environment: products in glass retain their natural, true flavour, and glass is 100% recyclable, thus closing the materials cycle.



EYE-CATCHER

The blue brothers

With the launch of its new Tuborg "Skøll", the Kronenbourg brewery is putting itself in an attractive position in the market for trendy beers.

The new mixed drink "Skøll", which consists of beer flavoured with vodka and citrus fruits, is a real eye-catcher – and its manufacturers opted for some striking features for developing and marketing this product too. The most obvious of these is the blue glass bottle, which evokes the coolness of the north. And this brings us neatly on to the drink's second distinctive characteristic: the name. "Skøll", a well-known toast dating back to the Viking age, simply translated as "Cheers!", and that completes the (Arctic) circle.

From white to blue

Blue bottles stand out particularly well. Blue is a special colour in glassmaking and these bottles can only be produced in facilities where there is a "colour feeder" available. When molten flint glass is poured out of the furnace,

some of it is channelled through this glass-colouring forehearth, which contains a precisely measured amount of colour concentrate and turns the flint glass blue. The Straža plant in Croatia carries out this special colouring process for Vetropack. This "Nordic" beer is available in either 0.33 or 0.66 litre bottles – although during the introductory phase it is only being sold in France.

Incidentally, did you know that empty blue bottles are meant to be disposed of in green glass bottle banks? Green glass "swallows" up to three per cent of non-standard colourings.



ANNIVERSARY BOTTLE

170 years of Pilsner Urquell

Pilsner Urquell has been brewed in the same way since 1842. The anniversary year 2012 came to an end with the production of a special bottle.

Pilsner Urquell celebrated the end of its anniversary year with a very special one-off bottle. This special bottle to mark the beer's 170th anniversary was made at the Vetropack plant in Nemšová, Slovakia. It is only available in limited numbers. The distinctive bottle holds a full litre of "natural Czech-ness" says the brewery: the hops, barley and water all come from close at hand. The anniversary bottle with swing-top was designed by the famous designer Lars Kemper. It is a unique creation, inspired by the shape of the historic Pilsner Urquell bottle.

PURE AND REFRESHING

Familiar bottle, new contents

The reusable bottles made by Vetropack Austria for the new apple juice spritzer from the Swiss drinks brand Michel have been on the market since the start of the year. The shape of the bottle is very familiar in the small Alpine country.

The Swiss fruit juice brand Michel has belonged to the beverage manufacturer Rivella AG since 1983. Since its image relaunch in 2006, the milk serum drink Rivella has been sold in a shapely amber glass bottle. Now, that design is being used to link the brand Michel with the parent company. The shape of the bottle for the new apple juice spritzer is derived from that for Rivella. With one difference: it is made of flint glass, because this really allows the pearly yellow of the apple juice to glow.

Full fruit flavour thanks to glass packaging

Rivella uses premium glass packaging in the restaurant sector and benefits from the positive image of the material. The "classic" Michel juices come in 0.2 litre bottles, but this volume would not be suitable for a spritzer. That is why the company opted for the 0.33 litre model. A glass bottle – regardless of whether it is amber or clear, big or small – always means particular enjoyment. The same goes for the taste of the new apple juice spritzer: fresh, fruity, unaltered in any way. In addition to looking high-quality, drinks in glass bottles also have a long shelf life. Only in glass packaging is the freshness of the fruit preserved untouched.

**LIGHT AND INNOVATIVE**

Weight reduction à la carte

Glass bottles keep getting lighter, thanks to the narrow press and blow process. This sophisticated technology can now also be used for customer-specific glass packaging.

Last year, the Vetropack Straža plant in Croatia developed the ultra-lightweight 1 litre wine bottle and then just a few months later the company adapted the narrow press and blow process for customer-specific glass packaging. This opened up a whole new world of marketing opportunities: lightweight glass is no longer reserved for standard products.

Customised lightweight glass

The new Tikveš flint glass bottle weighs just 395 grams instead of 430 grams, a reduction of 10%. Tikveš in Macedonia is a long-standing customer of Vetropack Straža, and one of the biggest wine producers in the Balkans. 13 to 15 million bottles a year are filled with all kinds of different wines. Now its table wines are to be sold in lightweight glass bottles. At the same time, the company's striking logo has been positioned on the shoulder of the bottles.

Three different mouths, one set of moulds

The new bottles for Tikveš are not only lighter and more stylish in appearance but they are also more practical. The bottles can be manufactured with three different mouths using the same set of moulds. This means that the customer can decide whether it wants to opt for a crown cork mouth or one of two types of screw cap (MCA 28 or BVS30X60). The cost of switching is minimal, for both the customer and Vetropack.





HERBS AND SPICES

Glass jars full of flavours

Without herbs and spices, it is not just food that would be bland and boring. As master chefs would say, "how you flavour your food says a lot about you". Since fresh herbs are not available all year round, we have to resort to dried varieties – packaged in glass, of course.

Herbs taste best when they are freshly picked and used immediately, in which case they do not need any packaging. The same is not true of dried herbs, however: the ideal way to keep these is to pour them into glass containers and, if possible, store them in a place where they are not exposed to too much direct sunlight.

A key difference

Although culinary herbs are classed as spices, people often talk about "herbs and spices". This differentiates them from "pure" spices, which can be made, for example, from seeds (pepper), flowers (saffron), bark (cinnamon) or roots (ginger).

Aromatic contents in attractive glass containers

Vetropack Group supplies glass spice containers to customers in Switzerland, Austria, France, Italy, Croatia and Slovenia. Yet there are all kinds of individual customer models, which are suitable for various



different types of closure. For example, depending on the spice in question, a (screw) lid with different-sized openings may be applied so that consumers can individually control the amounts they use. Alternatively, however – and this is an increasingly popular option – a container with an integrated mill as a lid may be preferable for spices such as pepper. The latest varieties include refillable containers, or mills with “fine” and “coarse” grinding settings.

Preserving flavour through glass

What could be a more attractive sight in the kitchen than a colourful array of glass containers full of spices (arranged on a suitable rack, so they don't have to be hidden away in a cupboard)? The flint glass used for these “treasure chests” of flavour allows the contents to speak for themselves. The most important factor here is that nothing can preserve the pure aroma and intensity of such valuable contents for as long as glass, which is why we can tell how good spices will taste by the way they are kept.





Günter Lubitz, Head of Technology and Production for Vetropack Group, presents the new tempering process of container glass. Lubitz has been the Chairman of the International Partners in Glass Research (IPGR) Executive Committee since the end of 2009.

THE FUTURE DEPENDS ON GLASS I

Research into container glass

Since 1984, International Partners in Glass Research (IPGR) has been conducting research into glass containers. When this research was initiated, the crucial factors for consideration were the weight and fragility of glass – issues that are still highly relevant today.

International Partners in Glass Research is a global research and development network of container glass manufacturers. The association currently has ten members, including Vetropack, which joined in 2002. IPGR represents more than 12% of the world's container glass production. Günter Lubitz, Head of Technology and Production for Vetropack Group, has been the Chairman of the IPGR Executive Committee since December 2009.

Unlike other international associations in the packaging glass industry, IPGR is actively involved in research into packaging glass. The aim of the organisation is to enhance, or at least maintain, the competitiveness of glass as a packaging material. For example, it is investigating ways in which the glass manufacturing process can be made more

efficient by developing innovative materials. And as for glass melting, a process which consumes a lot of energy, the researchers are looking into more efficient melting techniques, as well as methods of evaluating these new techniques.

The IPGR members have published a white book on the association's website (www.ipgr.com), which provides a summary of the wishes and requirements of the container glass manufacturers in the association. It is not necessarily a matter of finding an immediate solution for all the problems – the white book is intended to encourage developers to start discussing requirements and to drive development forward. The aim is not just to optimise glass manufacturing, but also to come up with revolutionary ideas that will lead to breakthroughs in technology.

THE FUTURE DEPENDS ON GLASS II

Hard glass – breaking new ground in glass technology

The preparatory work for starting hard glass production is well underway. A production hall has been built at the Vetropack plant in Pöchlarn, Austria, where the very first industrial production facilities for manufacturing thermally hardened packaging glass are currently being installed. The new production machine was shipped to Pöchlarn from the USA, and production will start once the installation is complete at the end of May. Everyone is eagerly anticipating the first trial production run under industrial conditions. After all, unlike laboratory or pilot tests, this should provide comprehensive information about the

hardening effect and the reproducibility of the process, both of which are essential requirements for mass production.

The hard glass technology consists of an innovative thermal hardening process that enables glass packaging to be made even more robust and sustainable. Vetropack will work closely with the glassmaking machinery manufacturer Emhart Glass to test this technology, which is the first of its kind in the world, under industrial production conditions.

FORWARD-LOOKING

New chimney is more environmentally friendly

In November 2012, the Vetropack plant in Ukraine, the Gostomel Glass Factory, put the new chimney for its melting furnace for green glass into operation. This marked an important step forward.



The investments made by the Vetropack Group are characterised by careful and long-term planning. That's why the planning for the new chimney began in 2011, involving both structural and technological decision-making. Then the project team commissioned the German company Interprojekt GmbH, an experienced and reliable specialist in industrial gas cleaning systems. The more detailed and thorough the planning phase, the shorter the actual installation phase. The chimney at the Gostomel plant was installed by the Ukrainian company Ekorembud in just three weeks, under the supervision of representatives from Interprojekt. It was all ready for use on 8 November 2012.

In theory, the new chimney could clean the waste gas from two furnaces. At Gostomel it is only doing so for one, but it is the largest in the whole Vetropack Group. The green glass furnace produces up to 400 tonnes of packaging glass a day.

Investment for the future

In all its investments – whether they are regular refurbishments or new installations – Vetropack always uses the latest technology. The new chimney at the Gostomel plant is another very good example of this policy.

INTERVIEW

Tihomir Premužak – looks back on his first year as Head of the Business Division Croatia

Tihomir Premužak (TP) has been in charge of the Vetropack plant in Croatia since the start of 2012. Vetrotime (VT) spoke to Dragutin Špiljak's successor about his first year as the 'company boss'.

VT: What has changed since you have been in charge of Vetropack Straža?

TP: Before I was appointed to head up our Croatian subsidiary, I was the Technical Director, responsible for planning and implementing investments, and for technical maintenance. Now everything comes together on my desk. It only works because I get such fantastic support from my management team. I am also glad that I had the opportunity to get an additional management qualification beforehand. Technical training alone would not be enough. Management expertise is essential for running a company.

VT: So you were able to prepare yourself for your new challenge in advance?

TP: Yes, but not everything can be planned beforehand. And that's why I'm also very glad to have been given such a positive and warm welcome here, both within the company and by our customers and business partners. You never stop learning... and, as head of the business unit, I always see things differently now when I look at the plant; the technical angle is just one aspect of many.

VT: What were the highlights of this year for you?

TP: Getting to know our customers has been very rewarding



for me – especially because this has given me a new perspective. It isn't an easy time for any of us, Croatia is in a crisis and neither we nor our customers can hope to come through it unscathed. We're all in the same situation. So I'm all the more pleased that, in this environment, we managed to produce a good end result: our revenue has remained steady.

VT: Have there been any internal improvements?

TP: Without a doubt, two of the internal highlights were the going live of the PRISMA project and the refurbishment of the white glass furnace. Thanks to PRISMA, our plant is now fully integrated into the Vetropack process landscape. The time-intensive preparations have paid off. Our customers won't notice any difference, but that is really the point. If your customers notice your internal processes, then you're doing something wrong.

VT: What objectives have you set yourself for the short to medium term?

TP: No standing still, that's my, and our, most important aim. I learned that from my predecessor, and we'll carry on in that vein. For example, by asserting our own identity more and stepping up our marketing activities. We want to keep on improving, and learn from our mistakes so that we and our customers and partners can all grow. We'll manage it, I'm sure, because I know that the Straža team is behind me.

VT: Mr Premužak, you have a family and lots of hobbies – including riding a motor-bike and having your own vineyard – do you still have enough time for them?

TP: It's important to find a balance. That's why I needed answers to two questions before I took over from Mr Špiljak.

VT: And those were...?

TP: I stood in front of the mirror and asked myself: do you





To regain energy Tihomir Premužak enjoys being in nature, for example by hiking with his family.

really want to do it – with no ifs or buts? I asked my wife a similar question: are you behind me and will you support me in it? It was only when I got a definite 'Yes' to both that I decided to apply.

VT: Thank you very much for talking to us.

TP: If I might just add something: we have all learnt a great deal from my predecessor Dragutin Špiljak, and I'm very grateful to him. It was he who shaped us and the company. To be his successor is both an honour and a challenge.

ENTREPRENEUR OF THE YEAR 2012

Three questions

Claude Cornaz (CC), CEO of Vetropack Group, was named Entrepreneur Of The Year 2012 in the "Family Business" category on 26 October 2012. Vetrotime (VT) asked him three questions about this award.

VT: Mr Cornaz, how does it feel to be honoured for your work as an entrepreneur?

CC: It feels good, very good. After all, this award isn't merely a "gesture"; it has substance. The winners are chosen by a high-calibre independent jury. The criteria are transparent and of course Ernst & Young, the organisers of this global competition, remain completely neutral throughout. This is motivating – for me and all our employees.

VT: What criteria did you have to meet to win this award?

CC: The independent jury paid particular attention to entrepreneurial performance, business development, innovative strength, human resources management, future sustainability and contribution to society as a whole. When I was presented with the award, the jury summed up its assessment as follows: "Vetropack Group pursues a focused strategy and its entrepreneurial activities as a family business are consistently geared towards long-term sustainability and independence". However, long-term success is the product of many hands and minds. The cooperation and perseverance of everyone involved in a company are essential to its overall performance.



VT: Are you saying that this award is dedicated not only to you, but – indirectly – to all the staff at Vetropack?

CC: Yes, precisely. It's not just me who has been honoured, but the entire Group. All of our current and former managers and employees should be credited for putting us in the position we are in today. And credit should also go to all of our business partners and shareholders. Their confidence in us constantly spurs us on to strive to be that little bit better.

"I make my world the way I like it," sings Pippi Longstocking, the famous heroine of the children's books of the same name. Now, creating their own little world can be more than a dream for adults too, if they start to make terrariums in glass containers. Two American women, Michelle Inciarrano and Katy Maslow, show how to do it and know just how to inspire people.



IN MINIATURE

Small worlds for big dreamers

You begin by choosing a nice glass container, some stones, soil, moss and other small plants. Depending on the size of the opening, a pair of tweezers may be useful. Then you can start being creative. Stones become mountains, moss is turned into undergrowth. There is no limit to your imagination. A miniature world appears – where houses, vehicles, animals and people all have their place: little figures that you can buy in craft shops. Shops selling miniature railway sets offer an especially good choice.

In the beginning was...

No, in this case not the Word but actually the deed: setting up the company. Michelle Inciarrano and Katy Maslow

run a company in Brooklyn, New York, that specialises in "Twig Terrariums" – miniature worlds. The two artists design idyllic landscapes, fanciful scenarios and fun and surprising snapshots of life and put them all in glass containers. They also organise courses for would-be miniature gardeners and world designers, sell ready-made terrariums and display their artistic work and their creations on an Internet site (www.twigterrariums.com). People who prefer to glean their knowledge between the covers of a book will also strike lucky: the two creative women, with photographer Robert Wright, have published a book, "Tiny World Terrariums". So far, the book is only available in English.



In 7 days...

In Switzerland, Anne Ohlendorf (photo on the left) is following in the footsteps of these two designers. "It's not as easy as it looks at first sight," explains the marketing specialist from Dresden, who now lives in Zurich. The most difficult thing is to maintain an environment in the glass container which is neither too wet nor too dry. Ohlendorf is well on her way. The necessary "raw materials" are already stacking up in her apartment and on her balcony, along with works in progress and those that are already finished. She has also already set up a company to market her green creations. So far, it is not much more than a hobby with potential, but as the young entrepreneur says, laughing confidently, it has never yet taken her 7 days to create one of her worlds in miniature.

