

INFORM



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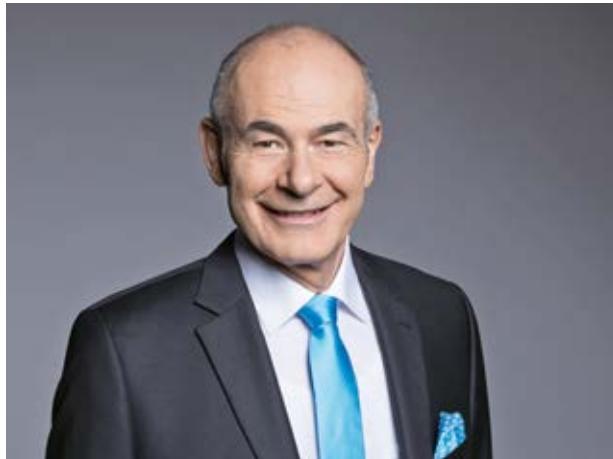
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ON THE MOVE.



All over the world, the plastics industry is currently exposed to various atmospheres of tension. The pollution of the oceans by plastics is a much-discussed subject, and the contamination of our drinking water by microplastics another. Both issues concern us all directly; they call for a fundamental clarification of the facts, followed by effective correction measures. Not helpful, in my view, are the approaches now applied by some non-profit organisations, media and, of late, marketing departments. I believe that, without differentiation, any consideration of technopolymer materials will get us nowhere. The idea of substituting them can also mislead us. If the complete material cycle is looked at from an ecological point of view, plastics turn out to be the most intelligent choice in numerous cases. This is underpinned by a Swiss study of the eco-balance of beverage packaging products. We will discuss this investigation in the present issue of our customer magazine.

The two customer profiles in this issue of *inform* show how responsibly the plastics processing industry acts. Western Container is one of the biggest producers of PET preforms and bottles in the USA. At its four production locations, the company invests and optimises all the time to steadily reduce its ecological footprint. Swiss Prime Pack, a Swiss producer of high-grade food packaging items, also attaches top importance to sustainability, both in everyday production and in countless innovation projects. Using resources sparingly is also a permanent topic with Friedr. Freek GmbH. This family business near Dortmund/Germany has been our partner for nozzle heaters for exactly 20 years. The history of our cooperation is a striking example of how medium-sized companies can benefit from honest relationships in globalised markets.



Front page.

Otto Hofstetter AG has been using heating units from the German family company Friedr. Freek GmbH in its moulds for 20 years.

I now wish you enjoyable reading and to our readers in the northern hemisphere a great summer season.

Imprint.

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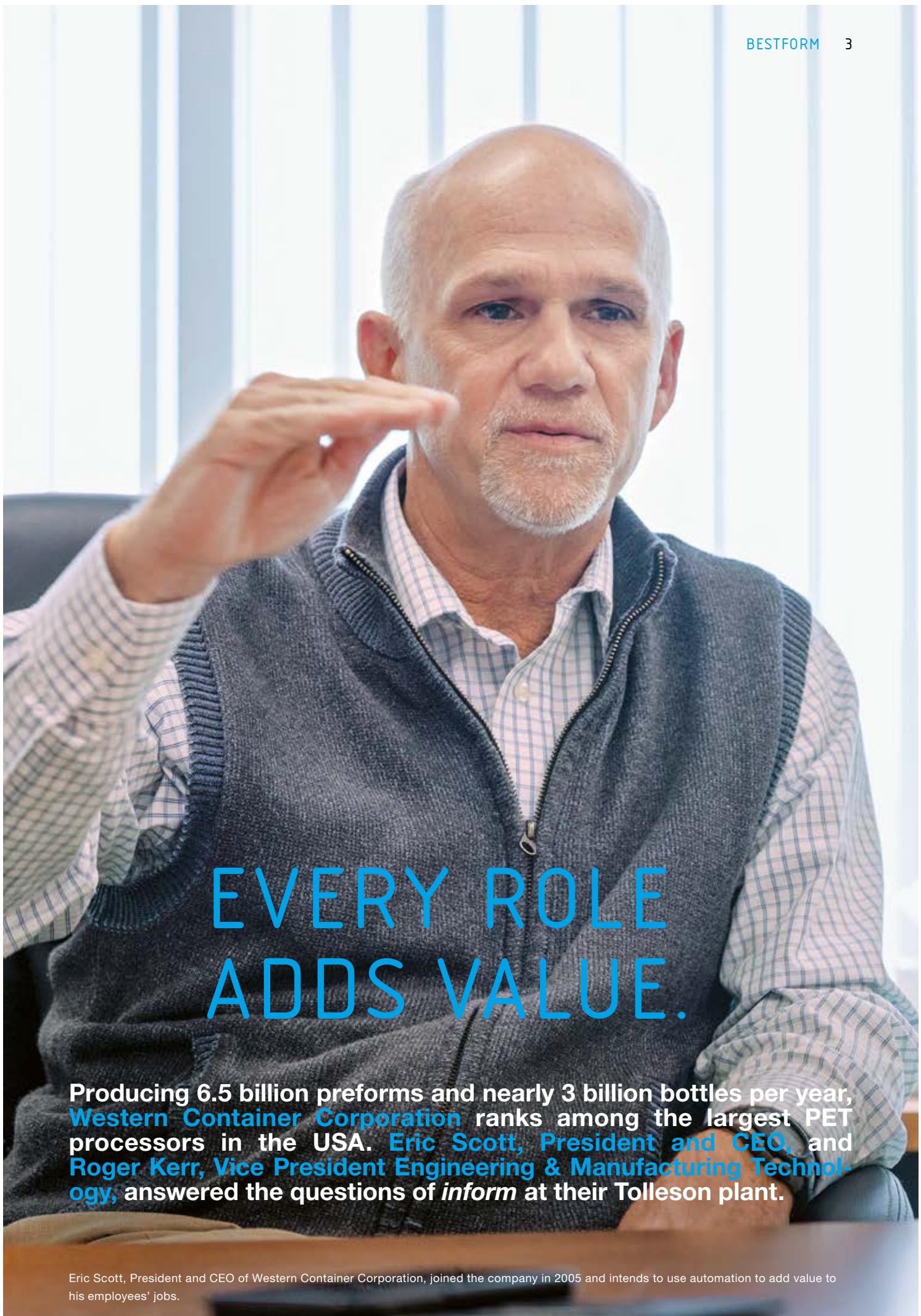
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Yours

Stefan Zatti



EVERY ROLE ADDS VALUE.

Producing 6.5 billion preforms and nearly 3 billion bottles per year, **Western Container Corporation** ranks among the largest PET processors in the USA. **Eric Scott, President and CEO, and Roger Kerr, Vice President Engineering & Manufacturing Technology,** answered the questions of *inform* at their Tolleson plant.

Eric Scott, President and CEO of Western Container Corporation, joined the company in 2005 and intends to use automation to add value to his employees' jobs.

Western Container Corporation (WCC) was founded by a group of independent bottlers of The Coca-Cola Company (TCCC) in 1979. What motivated them?

Eric Scott: Two factors were paramount: the location of the Coca-Cola bottlers in West Texas made bottle supply logistics difficult and unpredictable, and bottle transportation costs were cost prohibitive. In 1979, most of the bottles filled were 2-litre, and a truckload carried only 28,000 containers, resulting in excessive costs considering the distances involved. With the formation of Western Container, both problems were solved.

Nearly 40 years have passed and WCC has grown to one of the largest PET converters in the USA. What does the company look like today?

Eric Scott: Western currently produces approx. 6.5 billion preforms and nearly 3 billion bottles per year. In other words, we sell more preforms than bottles, which wasn't always the case. Our annual sales come to about USD 320 million, influenced heavily by the price we pay for PET resin. Our customers are our shareholder owners and they consist of five very large and a few smaller bottlers. We supply a total of 40 bottler locations from our four production facilities in Fife, Hattiesburg, Houston and Tolleson, and with our Sugar Land, TX headquarters employ approx. 330 people.

"THE ENERGY REQUIRED TO PRODUCE A CONTAINER HAS COME DOWN BY 40 PER CENT IN THE LAST 16 YEARS."

Roger Kerr, Vice President Engineering & Manufacturing Technology

Your customers are bottlers for Coca-Cola exclusively. What is your biggest challenge?

Eric Scott: Over the years we've been able to implement a very simple mission statement. It consists of guaranteeing our preforms and bottles are the highest quality, with surety of supply, and at the lowest possible cost. Since profit is not our first objective, we continue to focus on cost reduction, and we believe we're quite good at it. In the 14 years that I've been with the company, we've reduced our production costs each year, and this despite steadily increasing costs of labour, energy and raw materials. At the same time, we have seen dramatic improvement in our quality metrics.

What does it look like as regards energy?

Roger Kerr: Approximately 16 years ago, we started measuring

our energy consumption and subsequently have reduced the energy to produce our preforms and bottles on an annual basis. We recorded significant decreases in the early years, but in the last five years or so, we have aimed at a two-percent reduction annually, which we usually meet or surpass. Thanks to the daily efforts of our corporate and production teams, we now use approximately 40 per cent less energy than when we started measuring in 2003. In addition to this, we carefully look at energy consumption when investing in

"IF EVERYONE DEVOTES HIMSELF TO SAVING ENERGY, THERE'S STILL A LOT MORE WE CAN ACHIEVE."

Eric Scott, President and CEO

new equipment. Technologies are now in the market that weren't previously available, for example Kinetic Energy Recovery Systems, which have been popularised in Formula One racing are now available in injection moulding systems. These and other energy-saving technologies are now making real tangible improvements, providing both financial savings and lowering our carbon footprint.

Where do you see potential for further cost reductions?

Eric Scott: Automation and telemetry continue to advance at an ever more rapid pace – both in general and within our industry. We currently have two big projects under way. In Hattiesburg, we are installing a fully automated preform warehouse system due to start up this year. This system



Despite the great success, Roger Kerr, Vice President and Engineering & Manufacturing Technology at Western Container Corporation, intends to further reduce energy consumption.



utilises laser-guided vehicles (LGVs) to collect preform bins from our injection department and store them in our preform warehouse. The LGVs subsequently fetch the bins for loading onto trucks. This is truly an autonomous “lights-out” operation, which will be monitored from our production control centre. We expect this system to increase our handling efficiency, reduce costs, improve safety and give us real time inventory data.

Also, in Hattiesburg, we continue to refine our newly installed production control centre that allows us to monitor critical indicators in our injection, water, air, power and resin systems. This is truly process control: we no longer check part quality exclusively, but monitor real-time-critical indicators, ensuring we build quality into our products. Our production teams no longer spend hours inspecting individual parts; they devote

their time to looking for process variables which are trending away from their setpoints, giving us time to take corrective action before it becomes an issue. This dovetails into one of my major company themes, “Every role adds Value”, and it is critical to our success.

Will it also be possible to monitor other plants from the same control room?

Roger Kerr: Absolutely. With today's technology everything can be monitored remotely. With our control room concept, we are taking our first steps in this direction. In the coming months, Hattiesburg will monitor the injection systems at Houston. The Hattiesburg team have a very deep understanding of injection systems, and also have more resources than their colleagues in Houston. This makes them ideal for helping Houston undertake process monitoring, while still enabling us to run as lean as possible with only four injection systems located there.

To what extent will these developments affect the work of your employees?

Eric Scott: Shifting focus from “Quality by checking” to “Quality by process monitoring” is very important to us at Western Container. We want all roles to add value, and this is a big

**“OUR CONTROL ROOM CONCEPT
HELPS US SOLVE PROBLEMS
BEFORE THEY ARISE.”**

Roger Kerr, Vice President Engineering & Manufacturing Technology

step in that direction. To monitor the process of a complete production site is far more valuable than visual inspection alone. We shall either automate or adapt every activity until it creates direct additional value for the product or the process. In my view, this aspect makes us stand out in our branch of the industry.

Your mission is to supply your customers with the highest quality at the best price. How do you define highest quality?

Roger Kerr: We are not in the business of manufacturing the perfect preform or bottle. We define highest quality as parts that are both fit for purpose, run seamlessly through our bottlers' equipment, and meet all TCCC standards. We mustn't forget that no one wants to pay for perfect parts, but on the other hand, we try our utmost to keep potential issues from

reaching our customers. We strive to do this by ensuring all our equipment is impeccably maintained, and ask our bottling partners to rate our quality performance on a regular basis.

How do you guarantee quality across all four plants?

Eric Scott: Faith Vedder is our Corporate Director of Quality and she has devoted herself to the pursuit of excellence for more than 30 years, developing numerous PET packaging quality systems for TCCC. All four plants operate the same quality system with a Quality Manager in each operation, ensuring all quality systems are complied with. We also have a corporate TCCC-certified laboratory, where preforms and bottles from both our and our bottlers' facilities are regularly tested.

"HIGHEST QUALITY IS DEFINED AS PARTS THAT ARE BOTH FIT FOR PURPOSE AND RUN SEAMLESSLY THROUGH OUR BOTTLERS' EQUIPMENT."

Roger Kerr, Vice President Engineering & Manufacturing Technology

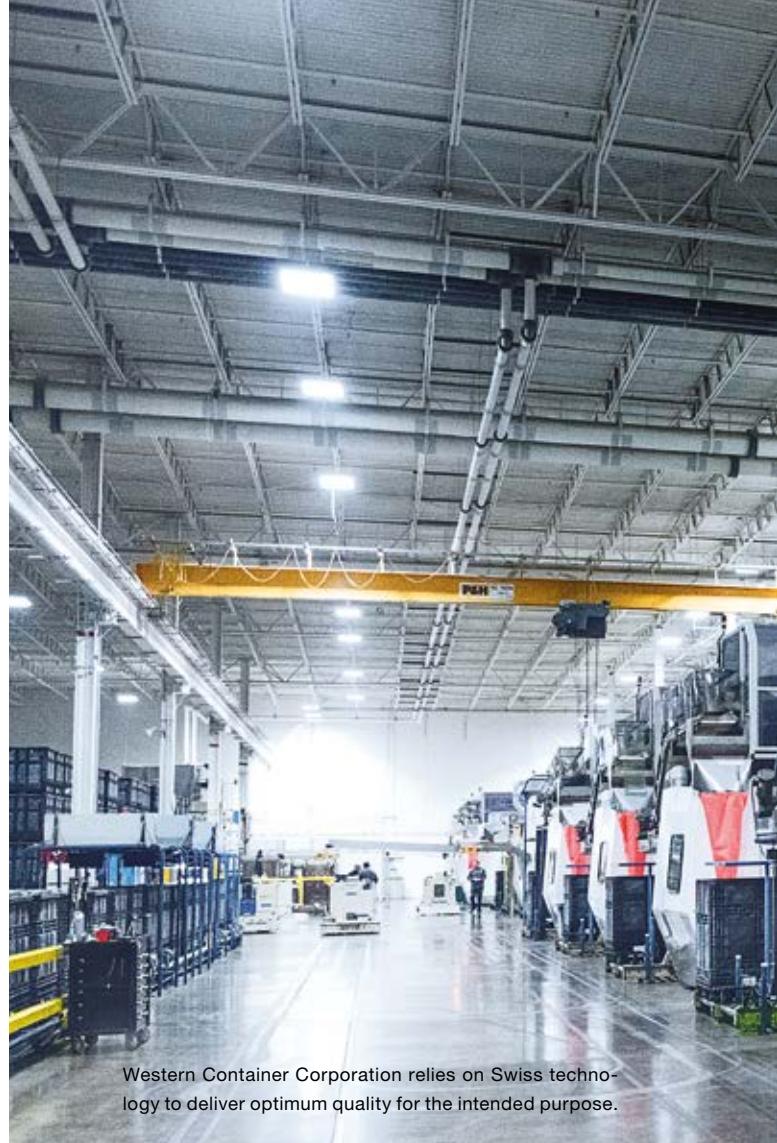
Earlier on you mentioned the importance of your equipment. What are your experiences with the injection moulds of Otto Hofstetter AG?

Roger Kerr: We haven't lost a single cavity in the two years in which we've been running moulds from Otto Hofstetter AG (OHAG). This alone is testament to the workmanship we've come to expect from OHAG. Add to this the exceptional longevity of the tooling, which we independently verified with other OHAG users in the TCCC system, and you have a winning combination. OHAG has a unique cavity lock mould design, giving much better life than traditional stack designs. We fully expect to get 10 million plus cycles, possibly more, from our OHAG tooling before needing refurbishment. Our flash reports indicate we are right on track to exceed this target.

Eric Scott: I would like to add another point. Mould maintenance influences the economic efficiency of a system more than the energy effort. Therefore, if the life of a mould can be doubled, the costs for its maintenance are halved. In other words, the moulds of Otto Hofstetter AG help us to offer the highest quality at the best prices.

What could be optimised on the moulds of OHAG?

Roger Kerr: Although we are delighted with our OHAG moulds, no one can stand still, and we are pleased to see



Western Container Corporation relies on Swiss technology to deliver optimum quality for the intended purpose.

that OHAG is constantly striving for improvements. For the future I believe there are further cycle improvements that can be made through optimising the material flow paths in the hotrunner. We have seen first-hand that composite melt flow

"OTTO HOFSTETTER AG HAS A UNIQUE CAVITY LOCK MOULD DESIGN, GIVING MUCH BETTER LIFE THAN TRADITIONAL STACK DESIGNS."

Roger Kerr, Vice President Engineering & Manufacturing Technology

channels that have smooth flow paths improve melt flow while allowing reduced temperatures allowing shorter cycle times. More efficient mould venting is also another potential area for cycle time optimisation.

What about the available services?

Roger Kerr: It would be great if OHAG had a technician based in the USA, but we understand this is not an economical proposition until the user base expands. What we really need in case of a serious problem, however, is a solution within

"IF THE LIFE OF A MOULD CAN BE DOUBLED, THE COSTS FOR ITS MAINTENANCE ARE HALVED."

Eric Scott, President and CEO



24 hours, which OHAG already guarantees. Our technicians have also received excellent training in Switzerland, allowing us to cope with any issues that have arisen.

The first mould of Otto Hofstetter AG was put into production at your plant in 2001. The second one followed 15 years later. What did the Swiss do wrong in the meantime?

Roger Kerr: Nothing. About a year after receiving our first 96-cavity OHAG mould, we changed our 20-oz preform design, and another mould-maker offered us a 144-cavity mould for a Netstal system, which OHAG wasn't offering at that time. Later Netstal offered us a 192-cavity system and unfortunately our relationship with OHAG took a back seat. The first Netstal-OHAG system was our fastest 20-oz system at the time, but its output could not match the later, larger cavitation moulds. Luckily, for me our relationship with OHAG was rekindled when Netstal introduced their new 5000 system. At that time, Eric and I visited OHAG's manufacturing plant in Uznach and were very impressed. We also visited a large user of OHAG moulds in Germany, who had very good things to say about the quality and longevity of the Swiss moulds, and at that point we were sold, and purchased our first Netstal 5000 with an OHAG 144-cavity mould. We have since bought another three Netstal 5000s with 144-cavity OHAG moulds.

TCCC was one of the first global brands using recycled material. In what direction will the market develop as regards raw material?

Eric Scott: TCCC has announced a programme "World without waste". Post-consumer recycled (PCR) granulate plays an important role in this. While I welcome this development, I also understand Roger's concerns from a technical point of view. The biggest challenge is probably to get the necessary quantity of recycled material to supply a large convertor like ourselves. The consumers in the USA are not

"DASANI WATER BOTTLES FOR THE US MARKET CONTAIN RESIN PRODUCED WITH 30 PER CENT ETHYLENE GLYCOL FROM SUSTAINABLE SOURCES."

Roger Kerr, Vice President Engineering & Manufacturing Technology

good recyclers yet, and as far as I know, the return rate is currently at approx. 30 per cent. Currently this recycled resin is used in multiple ways, not just for bottle production.



Western Container Corporation is constantly setting new benchmarks for the entire PET bottle production industry.



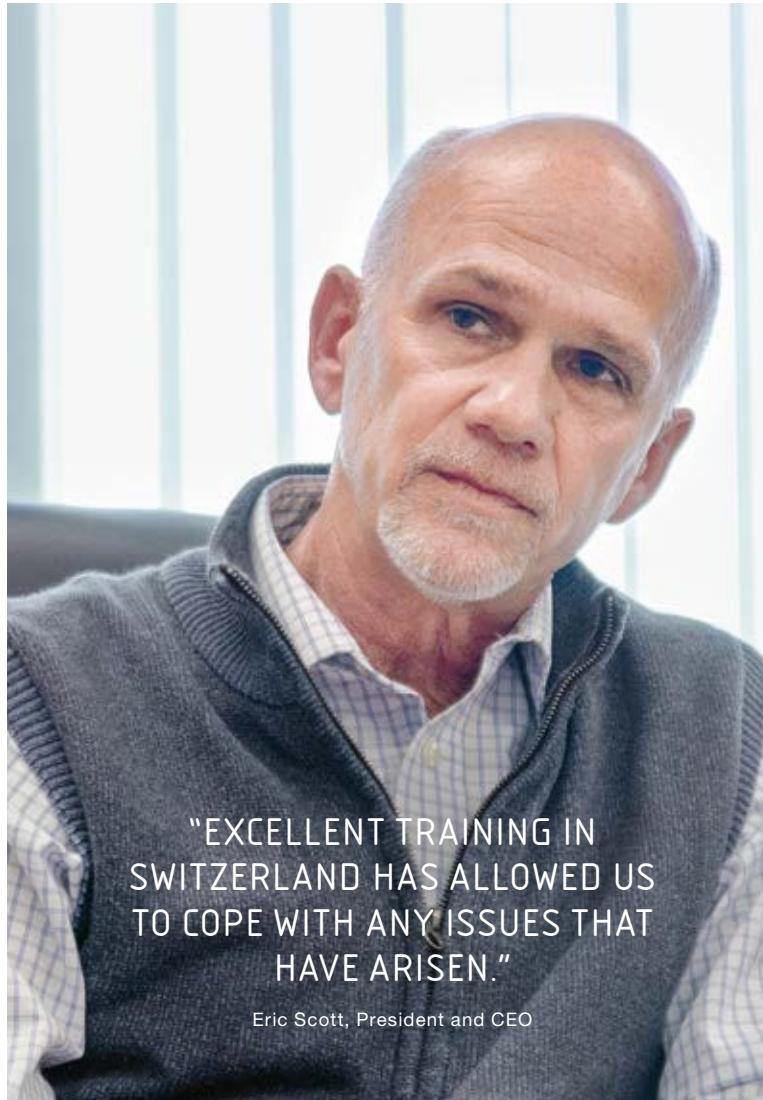
We will only get enough raw material if the beverage producers, bottle-makers, consumers and the State cooperate.

Roger Kerr: We currently produce Dasani PET water bottles with PlantBottle resin formulated with 30 % ethylene glycol from sustainable sources. This has been a major initiative of the TCCC and has demonstrated their will-ingness to tackle some of the big environmental challenges.

What will Western Container look like in five years from now?

Eric Scott: We will probably see further in-line blow systems in operation. At Western Container we are concentrating on the production of preforms, and we will continue to serve our bottlers in any way that adds value. Thanks to automation, in the future we aim to produce more, with fewer employees, while offering them tasks that are more rewarding.

Roger Kerr: With the moulds of Otto Hofstetter AG running on Netstal 5000 moulding systems, we already produce over 1.6 billion preforms per annum. A number hardly anybody believed possible only a few years ago. I'm confident that as our systems continue to be developed, we shall produce more preforms with much fewer machines.



"EXCELLENT TRAINING IN SWITZERLAND HAS ALLOWED US TO COPE WITH ANY ISSUES THAT HAVE ARisen."

Eric Scott, President and CEO

Eric Scott: We are blessed to have the backing of our bottlers under the Coca-Cola umbrella, and I am confident that with the right people, and the right technology, Western has a very bright future.

Many thanks for the discussion and best wishes for your continued success.



Western Container Corporation

Sugar Land (company domicile), Fife, Hattiesburg, Houston and Tolleson (plants)

Founded in 1979

Employees: 330 persons in total

Range of products: preforms and bottles for fillers of The Coca-Cola Company in the USA

Capacity: 6.5 billion preforms, 3 billion bottles



SECOND SPRING.

After more than 10 years of virtually uninterrupted operation, the 24+24-cavity stack mould producing spoons for soft ice cream has now been overhauled at the factory of Otto Hofstetter AG. For the mould's owner, this investment pays dividends in several ways. Thanks to good planning and bundled knowledge, the overhaul presents no problems whatsoever. An experience report.

Anyone who has ever bought the famous vanilla soft ice cream from one of the globally known fast-food chains also knows the spoon that comes with the ice cream. This article developed especially for the purpose is made by injection moulding. Different producers around the world make the spoons by the billions. A suitable mould is needed for the production. A mould made, for example, by Otto Hofstetter AG.

Such a mould was recently overhauled in Uznach. The 24+24-cavity stack mould had been in operation since May 2008, and produced nothing but soft ice cream spoons on five or sometimes six days per week in a six-second cycle. The failure of some cavities and quality deficiencies in the spoons prompted the company to have the mould completely overhauled.

From old, make new.

Thanks to the quality of the materials used, the mature process technology and the precise execution, an injection mould from Otto Hofstetter AG can be overhauled several times. There are a number of advantages if the overhaul is done by the original manufacturer of the mould. The mould is repaired by the same experts who developed, designed and built it. The replacement parts are new or in a new condition and are of course covered by a warranty. The further use of the mould reduces its ecological footprint and the investment in the overhaul amounts to only a fraction of a new procurement.

REPLACEMENT PARTS ARE NEW OR IN A NEW CONDITION AND ACCORDINGLY COVERED BY A WARRANTY.

Good preparation is half the work.

The overhaul of the mould in question started with a visit to the customer's premises. The mould was thoroughly inspected for wear and damage, and the last spoons produced were assessed and measured. Any problems during operation and mould maintenance carried out over the years were discussed with the Works Manager. This enabled the Hofstetter professionals to estimate the time required and the approximate cost of the overhaul. Conclusion: The entire group of inserts and the rack housing had to be replaced. The hotrunner and the remaining parts of the cold side needed comprehensive revision. The total time required was estimated to be 20 weeks, but the mould would be out of production for only half of this period.

Taking advantage of new developments.

Otto Hofstetter AG prepared for the overhaul while the stack mould was still producing flat out. Apart from the ordered quantity of spoons, the customer also moulded the quantity required during the weeks of the overhaul. In Uznach, the original drawings of the 24+24-cavity stack mould were

TO POSTPONE A MOULD OVERHAUL IS AN UNFAVOURABLE CHOICE.

retrieved from the archives and the manufacture of the replacement parts was started. In the 10 years that the mould had served its purpose at the customer's works, the engineers in Uznach had developed the technology further and gained in-depth experience from numerous projects around the globe. The newly made mould components, therefore, were state-of-the-art technology. Part after part was pre-machined and waiting to be fitted.

Fit for the future.

The customer transported the mould to the factory in Uznach, where it was opened. The Hofstetter experts now checked the mould condition in detail. The accuracy of the initial assessment in the customer's production usually corresponds to the effective picture in the mould manufacturer's revision department. The deviations amount to a maximum of plus/minus 10 per cent of the initially estimated values. The experience values were also confirmed in this case. The pre-machined replacement parts were fitted and the other mould components reground and neatly cleaned. At the end of the overhaul, there was hardly any evidence of the fact that the mould had run for more than 10 years and performed well over 20 million cycles.

The spoon mould was then carefully checked and measured. As usual at Otto Hofstetter AG, no deviations from the set values are accepted. Adjustments are made until all settings comply. This is followed by initial internal sampling. The technicians in Uznach will only receive the customer in their test centre when the product (spoon) meets the specification 100 per cent. Cycling under production conditions is then carried out and the outcome checked. The result was an impeccable soft ice cream spoon: no flashes, no voids. Nothing that would not have complied with a perfect product.

The 24+24-cavity stack mould was correctly packed and returned to its proper destination in production. Thanks to a professional assessment and joint planning by the customer and the mould-maker, the overhaul was completed successfully within the agreed time.

To postpone is uneconomical.

Experience gained from many projects makes it clear that it is unprofitable to delay a necessary overhaul. Wear of individual mould components can cause consequential damage, the repair of which is likely to cost at least the amount supposedly saved with the postponement. The enormous forces acting on the mould compress the steel. The vents in the mould section, which are sometimes only fifteen-thousandth of a millimetre wide, can shut and thereby impair correct functioning of the mould. Waiting too long, moreover, affects the mould's economic efficiency. If cavities are lost, the quantity of produced articles decreases, the quality of the product comes down and the number of rejects goes up. It is like with a visit to the dentist: the longer one waits, the longer the inevitable treatment and the higher the cost.

AN OVERHAULED OR CONVERTED MOULD CORRESPONDS TO A NEW ONE IN EVERY RESPECT.

Conversion for a second use.

The moulds of Otto Hofstetter AG are built for an eternity. Subject to proper maintenance and regular overhauls, their durability is usually longer than the life cycle of the packaging products moulded by them. If minor modifications of the product are required, it often pays to ask the specialists in Uznach whether a modification of the actual moulding surfaces would be a possibility and sensible, seeing that an overhauled or converted mould corresponds to a new one in every respect.



The more than 20 million cycles are no longer visible on the 24+24-cavity mould after the complete refurbishment at Otto Hofstetter AG.



WELL
UNDER
WAY.

Since 1 March 2017, Jana Walker has been CEO of Swiss Prime Pack AG in Altstätten, Switzerland.

At **Swiss Prime Pack**, the name says it all. The Swiss family enterprise supplies its **high-grade packaging products** to well-known domestic brands and companies across the border. *inform* met **CEO Jana Walker** at the headquarters in Altstätten and discussed with her about **quality**, the **Swiss domicile** and the **future** of the industry.

Mrs Walker, what does Swiss Prime Pack look like today?

Swiss Prime Pack is a Swiss family-owned company. We specialise in the development and production of industrial packaging products for ice cream and dairy products as well as service packaging articles for the catering trade and fast-service restaurants. Another pillar is the production of cups and accessories for refreshment dispensers. We employ about 140 persons in three-shift operation, half of them here at our headquarters in Altstätten and the other half at our works in Niederuzwil. Among the techniques we apply are plastic injection moulding, extrusion, vacuum forming and various finishing methods.

In which countries can I find products packed in packaging articles made by Swiss Prime Pack?

The majority of our customers are located here in Switzerland. About 60 per cent of our packaging products are used within our country. You will find them at Migros or Coop, for example. The remaining 40 per cent are exported to the bordering regions of the neighbouring EU countries.

Can you name some salient projects?

There are several in every area we are engaged in. For example, the ice cream containers for Mövenpick or Midor. We produce them with a foamed material and in a protected process. Emmi's Caffè Latte cup is also an outstanding product. In the vending segment, the production volume of more than a billion cups alone is impressive. In addition, we use thin-wall technology and fully automatic production from granulate to carton-packed cups. The spoon for McDonald's McFlurry ice cream is certainly complex and therefore challenging.

In 2016, your Chairman of the Board, Eric Stupp, was quoted to have said: "In matters of quality and innovation, the enterprise intends to become the number one". To which market did he refer?

This objective concerns on the one hand the geographic market of Switzerland, and on the other certain applications which we supply to neighbouring export markets. To achieve the mentioned quality means to invest considerably. We at Swiss Prime Pack strive for 100% product safety and impeccable hygiene. This can only be achieved by means of top technology on which we spend much capital. A further factor in this target are clearly defined standards. We train our workforce intensively along these guidelines so that the rules are always complied with.

To what extent is Mr Stupp's wish already fulfilled?

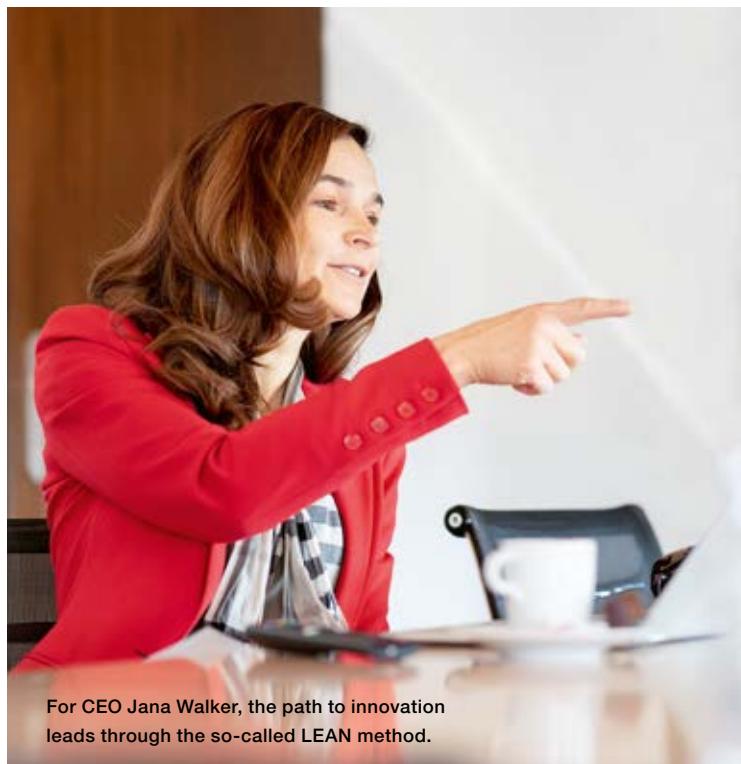
Let's put it this way: we are well under way. However, one never reaches the target, in principle. Striving for the highest quality is a constant process. In the interest of transparent results, we keep asking our customers about their satisfaction and we measure the quality. So far with very positive feedback from our clients and good marks for our quality. But, as pointed out: To rest on our laurels is out of the question.

"WE AT SWISS PRIME PACK STRIVE FOR 100% PRODUCT SAFETY AND IMPECCABLE HYGIENE."

Jana Walker, CEO, Swiss Prime Pack

What measures do you take to live up to the claim of your Chairman of the Board?

For us, the path to innovation also leads via the so-called LEAN method. We record our activities not only in production, but also in procurement, marketing and distribution as well as development. At weekly meetings, interdisciplinary teams coordinate their activities. This active exchange has proven very successful and is paying off in the entire innovation process.



Swiss Prime Pack emerged a little over 10 years ago from the merger of two enterprises. The locations remained. To what extent is this division still perceptible?

To have two locations is of advantage to us in numerous ways. Our catchment area is bigger to find new and qualified personnel, for example. Furthermore, if demand in one area rises sharply in the short term, it will enable us to rapidly release additional capacity in the second plant. In addition, certain customers insist on more than one production site in order to ensure security of supply at all times.

At the same time, redundancy means higher costs, which is a disadvantage.

What are the decisive factors for competitiveness in today's packaging market?

At Swiss Prime Pack, the formula consists of innovation, quality, flexibility and customer service. Price also plays an important role, of course. Even in the case of a new product development, the price is recorded in the specifications as the decisive factor.

Swiss Prime Pack appears to be very sensitive of the issue of energy consumption. What has been done in this respect?

We collaborate with a consulting agency and energy consumption is reduced annually through targeted measures and investments. The ecological footprint of our products is given high priority. When we develop new solutions, sustainability is a key consideration. Hereby we rely on reduced wall sections, recycling and bio-based plastic materials. We have only just launched a new vending cup based on GreenPlast®. The material to be processed is a blend of conventional plastic and natural raw materials. Packaging solutions based on this novel compound leave an ecological footprint less than half of that caused by products made from current polymer materials.

When it comes to vending cups, Swiss Prime Pack submits a quote to the customer that includes recycling.

Will producers be held responsible in future?

We have assumed this responsibility of our own free will and regard it as sensible. This is why Swiss Prime Pack closed the material circuit already many years ago. The cups were returned and recycled in cooperation with a partner. However, the project had to be stopped for commercial reasons. By now, the pressure on the plastics processing industry is so enormous that a fair price might be achieved for this service, which would be useful in any case.



One of the lighthouse products of Swiss Prime Pack is the cup for Emmi's Caffè Latte.

Your company cooperates in this area with the University of Technology of Rapperswil in Switzerland. What is your objective here?

Of key interest are new materials that permit us to further reduce the CO₂ footprint of our packaging solutions. On the one hand, we hope to achieve this by using biowaste in the form of wood, for example, or waste from the foodstuffs industry. The second direction to which we devote ourselves in our mutual research concerns a bio-based matrix. We are eagerly awaiting the results.

When you started as CEO, Eric Stupp announced that Swiss Prime Pack would invest in new production equipment and automation. To what extent is the company now automated?

Some interesting projects have already started well. For example, we have switched from off-line systems to fully automated in-line production. The production of yoghurt cups from the granulate to the film extrusion to the forming, punching, stacking and packaging of the cups is fully automated. We see additional potential in the area of inspection, either using visual systems or sensors. The packaging of products in cartons can also be further automated. Optimisation is still possible, but skilled and conscientious employees will still be needed.

"WITH TWO PRODUCTION SITES, WE CAN RAPIDLY RELEASE ADDITIONAL CAPACITY."

Jana Walker, CEO, Swiss Prime Pack

Swiss Prime Pack relies on standards, as we heard. How can this be reconciled with the customers' increasing demand for individual solutions?

The standards refer to our processes. They guarantee the quality of our products and services. When it comes to individual solutions, every customer will find open ears here and highly experienced professionals who will try hard to meet every wish they have. Thanks to small lot sizes, we are able to offer an incredible multitude of finishes. We develop the solutions individually and usually in cooperation with the customer. In the implementation, on the other hand, everything follows our standardised processes.

According to CEO Jana Walker, skilled and conscientious employees will continue to be very important in the future.



What are the current design trends in the packaging world?

Trend number one is sustainability. In the last few months, the demand for changed functionality has also increased. Things are used differently today than in the past and must therefore be rethought in their form. Plastic is increasingly being substituted with other materials.

Are there reasons for using materials which are not lasting?

With the materials and knowledge already available today, more sustainable packaging can be produced. If the entire ecological balance of a product is considered, the possibility of replacing plastic in food packaging is challenging. Optimising, reducing and recycling is definitely a good idea. Replacing plastic completely leads to higher environmental pollution (CO_2 emissions, water pollution, etc.).

When you took up your job as CEO, in a sense you took over Otto Hofstetter AG as your mould supplier. What do you think of the specialists in Uznach?

When quotations for demanding products are concerned, customers often wish to know who makes the mould. When

they hear the name Otto Hofstetter, the topic is usually dealt with and finished. Our customers attach extremely high importance to the partner we cooperate with. To this extent, one might say that Otto Hofstetter is like an insurance policy for us.

**"SUSTAINABILITY IS ALWAYS
A KEY CONSIDERATION WHEN WE
DEVELOP NEW SOLUTIONS."**

Jana Walker, CEO, Swiss Prime Pack

In what areas could Otto Hofstetter AG still improve?

If we detect a possibility for optimisation within an ongoing project and refer the issue to Uznach, our requests for modification are met quickly and translated in perfect quality. As a rule, however, the impetus for optimisations comes from us. We would be glad if the experts of Otto Hofstetter AG supported us a little more actively and contributed their improvement ideas proactively.



Well-known companies from Switzerland and neighbouring countries rely on the high quality of Swiss Prime Pack.



The future lies in cooperation, they say. Where do you see opportunities for positioning yourself ideally to meet the challenges of the future in cooperation with the Uznach mould-makers?

Support in calls for tenders would be a great way of intensifying our cooperation. The option of procuring complete systems via the sister company Otto Systems looks interesting. I see considerable potential with a view to Industry 4.0. In this context, I am thinking of automatic data acquisition and evaluation, followed by on-site instruction of the employees regarding preventive maintenance and optimisation.

informatics and plastics technology. I was also fortunate enough to find a good solution in my family. Meanwhile, my two daughters have grown up and organisation is therefore easier. I think that most women who get a chance do well in the men's world, but as far as equal opportunities are concerned, we still have some work to do in Switzerland until this question no longer makes sense.

Many thanks for the open and informative discussion, Ms Walker. Our best wishes to you with Swiss Prime Pack and privately.

"OTTO HOFSTETTER IS LIKE AN INSURANCE POLICY FOR US."

Jana Walker, CEO, Swiss Prime Pack

A final, somewhat personal question: In the history of the customer magazine you are only the third woman we meet. How do you get along in this men's world?

From my perspective, it shouldn't be unusual for a woman to manage a technical operation if she meets the requirements. I have studied business administration and then business



Swiss Prime Pack AG

Oberrieterstrasse 53/55, 9450 Altsttten, Switzerland

Founded in 1956

Employees: approx. 150

Sales in 2017: approx. CHF 50 million

Production plants located in Altsttten and Niederuzwil

Development and production of top-quality foodstuffs packaging products for premium brands by injection moulding, extrusion, vacuum forming and finishing

www.swissprimepack.com

PET IS TOP.

An eco-balance study carried out in Switzerland investigated the environmental damage caused by various beverage packaging products. Although the differences are only minimal in many areas, there are no easy solutions for every application. For carbonated drinks, however, PET bottles are clearly superior to other packaging methods from an environmental point of view.

Plastic packaging is currently facing considerable pressure from public opinion, especially in western countries. Its ecological compatibility is said to be questionable and urgently calling for alternatives or guidelines. This is why new options are emerging like the loose sale of foodstuffs or new regulations such as the EU-wide ban on disposable plastic products. With respect to beverages, voices are heard time and again asking for the replacement of PET by glass bottles.

Sixty packaging products tested.

Some time ago, the Swiss Federal Office for the Environment commissioned the independent consulting company Carbotech AG, a specialist in environmental matters, to engage in a study on the eco-balance of generally used beverage packaging products. The investigation focused on about 60 different containers for beer, fruit juice, ice tea, soft drinks, milk, mineral water and wine. As a basis for comparing the different beverage packaging articles, the group of experts relied on current data on production, logistics and utilisation (reuse). The method of ecological scarcity, which looks at the particular product and system, was used to assess the effect on the environment.

THE PRODUCTION OF BEVERAGES IS USUALLY MUCH MORE POLLUTING FOR THE ENVIRONMENT THAN ITS PACKAGING.

Beverage itself more harmful.

The study concludes that, basically, no material necessarily displays a poor eco-balance. Containers that rely on the least possible quantity of recyclable raw material and are designed for reuse are suitable and ecologically sensible. Interesting, moreover, is the fact that the production of a vast majority of the beverages themselves strains the environment many times more than the applied packaging. Losses of content caused by the design of the container, therefore, can be more decisive for the overall picture of the eco-balance than production, transport and disposal of the packaging.

Requirements in three areas.

The study conducted in Switzerland by Carbotech AG also clarifies that no particular type of packaging is the perfect solution for every kind of beverage. In general, containers should meet three basic requirements: One criterion is the protection of the content, which must not suffer any damage

hygienically, technically or due to any other influences. The second characteristic of a packaging article is defined by logistic requirements as regards transport and storage. And, thirdly, there are the demands imposed by marketing. Design, colour and refinement are decisive influencing factors in the choice of beverage packaging.

Transport distance changes the basic situation.

Aspects of relevance to logistics, such as weight, space required and stackability of the containers, affect the eco-balance directly. From the resulting transport efficiency arises the question of the distance. The study investigated to what extent the environmental damage changes when beverages in PET bottles and in returnable glass bottles are transported over longer distances. Thanks to the low weight of PET bottles, their transport distance contributes only insignificantly to a higher environmental strain, while that of returnable glass bottles does this clearly. The comparison of half-litre bottles shows that both display similar values up to a distance of approximately 250 kilometres, but that the PET bottle is more environmentally friendly beyond that. With greater volumes, the threshold is 230 kilometres.

Mineral water best in PET.

From the environmental viewpoint, PET bottles belong to the containers causing the least damage, especially where carbonated drinks are concerned. In this instance, the decisive factors are the low weight and the utilisation possibility. Here it must be observed that Switzerland, achieving a recycling quota of 80 % on a voluntary basis, is an exemplary country compared internationally. A direct comparison of the total strain on the environment caused by the 1.5-litre PET bottle versus that of the 1-litre returnable and the 1-litre disposable glass bottle shows the PET container clearly in the lead. Only tap water suitable for carbonisation would be more environmentally friendly than the PET bottle.

Source: eco-balance of beverage packaging products, Carbotech AG, 2014, Swiss Federal Office for the Environment (FOEN), Media Service web page

Method of ecological scarcity and EDS.

This method evaluates the emissions and consumption of resources with what are known as eco-factors. The latter are calculated from the ratio between the current emission quantities and the target values based on politically legitimate environmental quality objectives laid down by the law. The weighted quantities of emissions and the consumption of resources are expressed in the unit of measurement environmental damage score (EDS). In other words, the higher the EDS, the higher the strain on the environment.

PET BOTTLE IN THE LEAD.

A comparison of the environmental impact of 1 litre of mineral water, including shopping transport.





KEEN ON NEW THINGS.

For 20 years, Friedr. Freek GmbH has been supplying heating elements for the moulds of Otto Hofstetter AG. The family enterprise in the German town of Menden is the global leader in this field and permanently busy holding its position. General Managers Wolfgang and Stefan Kaiser and authorized signatory Michael Ablas rely on the self-responsibility and cooperation of their employees and partners.

For 20 years, the German-Swiss cooperation has been working extremely well: Wolfgang Kaiser, Wilhelm Kaiser, Michael Ablas and Stefan Kaiser from Friedr. Freek GmbH with Stefan Zatti (centre) from Otto Hofstetter AG.

"Sometimes in life, one needs to be lucky. However, without expertise in the particular field, success won't come, either." This is the emphasized and philosophical conclusion that Wilhelm Kaiser draws from his 30 years with Friedr. Freek GmbH. As Kaiser points out himself, he probably has both luck and expertise, judging from what the company looks like today.

Diplomatic flair of the wife.

"The company founder, Friedrich Freek, engaged me as a technical expert in heating elements and asked me to whip the operation into shape. Already on my first working day, i.e. on 1 January 1970, I got the feeling that I had no easy task on my hands." Despite of a major effort on his part, nothing changed within a reasonable time, which is why he handed in his notice and left the place. "My wife then got a phone call from Mrs Freek. She invited us to visit them privately at their home to discuss things once more in peace and quiet." The mission was successful. Wilhelm Kaiser returned and got a free hand to organise the company's development as he thought right and proper.

Embarking on a new era.

At that time, Friedr. Freek GmbH primarily made heating elements for household appliances. In addition to Freek's parent company, the Märkische Metallwerke (Metal Works of Mark Brandenburg), Krupp, Zanussi and the Swedish company Asko were among the customers at the time. Wilhelm Kaiser planned his private holidays so that a call at a customer's was either along the route or easily feasible from the holiday destination. In spite of his tireless efforts, Freek was involuntarily caught up in the bankruptcy of the parent company in 1983. But Wilhelm Kaiser believed in the future of "his" products and launched a new era as sole managing director of Friedr. Freek GmbH, endowed with the bank's trust and majority shareholding.

Mixed products a model for success.

While the medium-sized enterprise is still domiciled in Menden, it belongs entirely to the family and is now managed by Wilhelm Kaiser's sons Wolfgang and Stefan. They rely on the support of about 60 employees and achieve annual sales of approximately EUR 9 million. The production and trading company is recognised globally as a specialist in process heat and develops, produces and distributes electrical industrial heating elements for the plastics and packaging industry. "Our products from own manufacture in combination with trading goods give us the opportunity to offer the market a comprehensive range in spite of our manageable size."

Based on his good experiences, Wolfgang Kaiser regards this mix as a recipe for success. The production of highly innovative HotMicroCoils, often used as nozzle-heating elements for hotrunners in plastic injection moulding, is now the most important business segment of Friedr. Freek GmbH.

"THE SUCCESS OF OUR COMPANY IS OWED TO OUR LONG-STANDING CUSTOMERS."

Wolfgang Kaiser, General Manager

Long-standing customers are the foundation.

Like in the times of the father, technical expertise is one of the most important pillars of the flourishing enterprise. Stefan Kaiser holds a degree in mechanical engineering and, together with his brother, is responsible for the company. His speciality are the project management and all technical issues. In his search for effective solutions, he is supported by Michael Ablas. "Michael has been at the company for 25 years and contributed substantially towards our ability to build up and successfully develop the high-tech production of nozzle-heating elements." Friedr. Freek GmbH owes the rapid development and the present leading role in this area to Michael's expertise in matters of electrical heat technology. Remarkable progress has been made in this field: "In the last 25 years we and our long-standing customers have grown steadily, with new record sales in each of the last eight years." Existing customers enjoy top priority with Wolfgang Kaiser and his colleagues in the management. "We feel committed to our long-standing customers and always try to serve them with useful delivery times and professional advice."

Innovation as part of the DNA.

With two passionate engineers in the company management, it is not surprising that innovation is also highly important to this family business. "We have been active in production research for about 20 years and operate a Technology team which meets every two weeks. Without any particular directive, they ask themselves which problem in the market is waiting to be solved by us." According to Stefan Kaiser, the ideas come from the Friedr. Freek GmbH's Complaints and Innovation Management departments. "These projects are driven by the motivation of the team members, which gives them a much better chance for success." Supplementary to the internal projects, the company cooperates with various external research teams as well as technical universities.

Projects with very promising names emerged from this: Eucopet, Lean, Low2High or StraKosphere. The results of these projects are so convincing that European and national research institutions are interested in them, and the German Federal Ministry of Education and Research even regularly involves Freek in the set-up of its research framework programmes.

The power of cooperation.

Cooperation is a further pillar on which today's success of Friedr. Freek GmbH rests. The philosophy of "Cooperation beats competition" explains the relationship with customers and suppliers as well as the internal organisation. "To describe the organisation, we do not use a box model, but the analogy of an organic cell. The management forms the nucleus, surrounded by the cell areas of purchasing, distribution, marketing, production and service." According to Stefan Kaiser, who developed this model together with his brother and documented it in a book, this type of organisation encourages independent working. That said, it is important to have fellow workers who get to grips with these working conditions and the transparency as regards the ongoing projects and the course of business.

"TO DESCRIBE THE ORGANISATION, WE USE THE ANALOGY OF AN ORGANIC CELL."

Stefan Kaiser, General Manager

Virtual size makes us strong.

Cooperation is also an important part of the innovation project Eucopet. Organisationally, the plan initiated in the mid-1990s is based on a network of competitors. "The positive effect of this cooperation on motivation, engagement and creativity is fascinating." The main objective of the association of independent enterprises from Germany, Italy, Ireland, the UK and the USA is the mutual development of new and improved heating elements and their global distribution. "Thanks to the cooperation within Eucopet and with our numerous supplier partners, we are virtually large. This is how we are perceived in the market and maintain our position in competition with the real big players in the industry. The reason we are so successful in doing this is because we maintain our speed of reaction and service orientation – typical advantages of smaller companies."



Loyalty to partners.

Otto Hofstetter AG has been relying on the heating elements of the Freek company for the last exactly 20 years. "It is indeed a special distinction when, after two decades, the feeling on both sides is that everything went well, that great projects were realised and that both companies prospered magnificently." Wolfgang Kaiser sees the reason for this in the loyalty that has characterised Freek ever since the takeover by the Kaiser family. "Loyalty is the basis for a successful cooperation in the spirit of a partnership. In this fast-moving, globalised world, it is particularly important to have good partners who trust and also stand by each other in harder times."

**"WHEN IT COMES TO
MINIATURISATION AND DURABILITY
OF HEATERS, WE ARE PROBABLY
THE WORLD LEADERS."**

Michael Ablas, authorised signatory

Efficiency in the smallest space.

In the meantime, around 100,000 heating elements have found their way from Sauerland to the mould manufacture in Uznach. These are HotMicroCoil nozzle heaters, the heart of which is an extremely easily formable heating tube that – with its external dimensions of at least 1 millimetre – is more likely to be identified by the uninitiated beholder as a fairly thick wire. Not only the heart but also the heating body "made by Freek" is special. The heating tape developed exclusively for Otto Hofstetter and their high-capacity PET moulds is trimmed for durability and energy-efficiency. Another heating element development with a unique selling proposition is Freek's patented thermoelastic heat conduction system with its versatile, advantageous and Freek-typical overwound slot. Equally well-thought-out is the simple-is-best design, unbeatable in terms of flexibility and price, in a simple yet highly precise reflection tube.

Good is not good enough.

"The heater which Otto Hofstetter AG has been using for many years reveals to be extremely reliable in daily operation", remarks Michael Ablas. He explains, furthermore, that the values for energy-efficiency and gentle use of resources are outstandingly good thanks to the compact and thermally well-thought-out design. "In the miniaturisation of heating systems and in durability, we are likely to play a leading, if

not the leading, role worldwide." He foresees little optimisation potential for a further development of the Otto Hofstetter nozzle heater: "It is a very mature product. On the one hand, we have optimised it all along and, on the other, the prerequisites have not changed decisively. Potential might exist in the applied materials." Seeing that energy-efficiency is currently at the top of the industry's priority list, the team researches in this area. "We carried out comparative tests with the heating used by Otto Hofstetter AG for its moulds. The results confirm its outstanding thermal properties, but at the same time provide ideas on how we might improve our solution in this context."

Best prospects for the future.

Those at Friedr. Freek GmbH feel that the relationship with the Swiss partner is one between friends. "If a mould of Otto Hofstetter AG runs anywhere in the world, nobody will automatically associate it with us. It is always our Swiss partner whose name is at stake." According to Michael Ablas, everyone at Freek is fully aware of this responsibility. Trust, loyalty and continuity should continue to characterise the cooperation. "If a bright idea comes up at Otto Hofstetter AG, we know that they will involve us in the implementation right from the start. This is important to us, because the confidence which has grown over many years forms the basis for a continued successful cooperation in future." Commenting on behalf of the entire Freek enterprise, Wolfgang Kaiser would like to see the cooperation continue for much longer than another 20 years.



friedr. freek
GmbH

Friedr. Freek GmbH

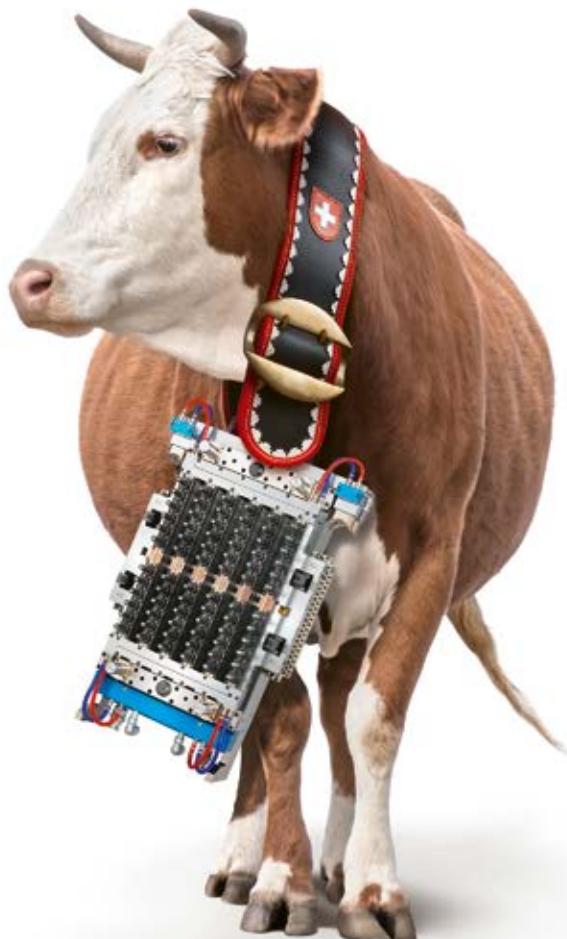
Sudetenstrasse 9, 58708 Menden/Sauerland, Germany

Founded in 1950

Employees: approx. 60

Sectors: plastics and packaging industry, medical and laboratory technology, air conditioning and commercial kitchen technology, solar and wind energy, aerospace technology and many more

Specialised in the development, manufacture and sale of electrical heating elements for industrial use



TOTALLY SWISS.

 Otto Hofstetter

A FAMILY OWNED SWISS COMPANY.

OUR INJECTION MOULDS FOR PET AND PAC FEATURE CRAFTSMANSHIP THAT IS UNIQUELY SWISS. OTTO-HOFSTETTER.SWISS

