Globe

THE GLOBAL MAGAZINE
FOR GF EMPLOYEES

ISSUE 2·2017

A rider of many talents

Virginie Frigo, GF Machining Solutions in Geneva, Switzerland

Our goals: Innovations with a customer focus
Our abilities: Four wheels and a vision
Our markets: Stability for a solar power plant in Morocco

+GF+

HELLO!

Peter Oliver Greza
Montafon, Austria, March 14, 2017, 2:30 PM CET

On this beautiful day I was in the middle of my skiing holiday in the region Montafon in Austria. The picture shows me on one of the "Black Scorpion" pistes. These ski runs are about 2 000 meters above sea level and have gradients of up to 81 percent, which is certainly challenging and gives you a real adrenaline kick.

Peter Oliver Greza is an intern in PR & Internal Communications at GF Automotive in Schaffhausen, Switzerland.

Leon Waller
Epe, the Netherlands, March 14, 2017, 2:30 PM CET

Here my colleague John Kinket (left) and I are re-installing our Strategy 2020 fountain. Just before the winter started we took our fountain to the warehouse to keep it safe from the freezing temperatures. Now, as the temperature begins to rise again, it was time to put the fountain back. Bring on the spring!

Leon Waller is Marketing Manager
at GF Piping Systems in Epe, the Netherlands.

JOIN IN
AND
WIN!

What are you doing **on June 9, 2017 at 9:00 PM CET?**
Send your snapshot with "Hello!" as subject heading and
a short description to: **globe@georgfischer.com**
All entries will be included in our competition on page 40.

02 CONTENT

Sections

EDITORIAL

New thinking for successful innovations

Beat Römer
Head of Corporate Communications

Dear colleagues,

The customer is always right – who would deny that? But far too often, in both the private and the professional sphere, we find ourselves on the receiving end of unfulfilled promises and poor service. In order to place the needs of our customers at the center of everything we do and to meet their requirements in the best possible way, GF is following a new approach: "Design thinking" is fostering innovations in new ways. The respective training initiative is one of the key projects of GF this year and a core element in our Strategy 2020. This issue of Globe provides some impressions from the first workshops, which are being held across GF worldwide.

When Globe first appeared in the new format and featuring new content in 2014, this was in itself an innovation, based on the wishes and needs of our "customers", in other words you, all GF employees. One of the things you wanted was to read more about your colleagues in other divisions and to find out about new projects and customer stories. The innovation has proven fruitful, as the results of our reader survey have shown earlier this year. This survey revealed markedly better feedback for Globe than previous surveys had. We would like to thank you for that. Your positive feedback motivates the Globe team to continue the magazine's evolution and make it even better.

I hope you have an informative and entertaining read.
Do you have any feedback? We look forward to receiving your input at **globe@georgfischer.com**

IN BRIEF

The building is up

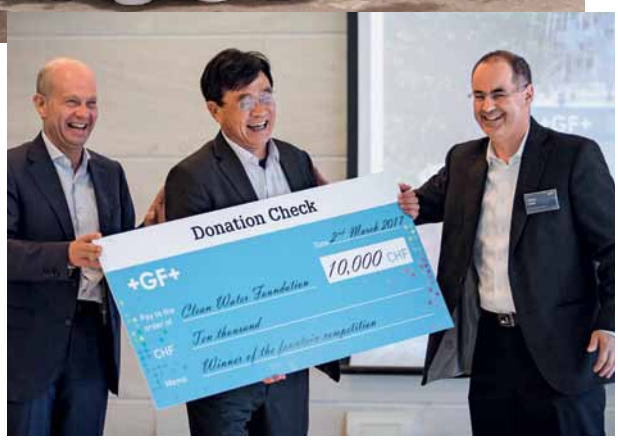
Construction work in Ferncliff Industrial Park in the town of Mills River is proceeding at full speed. There, in the US state of North Carolina, the new light metal plant of GF Linamar – a joint venture between GF Automotive and the Canadian machining specialist Linamar – is currently being built. The building has already been finished. At the moment the installation of the die-casting machines and the interior work are on the agenda. The construction has been 100 percent on schedule to date, with the start of production planned for the end of 2017. At the plant, GF Linamar will be producing light metal components for the North American market, the first key account being a locally based European car manufacturer. ■

Live pictures of the construction site at **https://app.oxblue.com/open/gflinamar/foundry**

New online shop for promotional items

Since the beginning of the year the new webshop for GF promotional merchandise and gifts is online. Employees from all divisions can find an attractive range of products at competitive prices at **merchandise.georgfischer.com**. Additions to the assortment are made several times per year. The new platform is provided by Brand Addition, an experienced solution provider with ten offices worldwide. The team from Brand Addition in Germany will be happy to help if you have any questions or requests. ■

Brand Addition
georgfischer@brandaddition.com
+49 2331 9597 79



GF employees in Shanghai site built the most creative fountain.

Creative fountain design

GF Piping Systems launched a worldwide competition in connection with Strategy 2020 to find out which site was able to design and build the most imaginative fountain using GF products. The winning team from Shanghai, China, was selected at the GF Piping Systems Convention in Valencia, Spain, in March. The prize of CHF 10 000 can be used by the team as a donation to support a Clean Water project of its choice. See **globe.georgfischer.com** for a selection of the many superb fountains from all over the world! ■

PRODUCT
IN FIGURES

Gold Awards 2016

Outstanding teamwork at GF has been rewarded once again. At this year's Corporate Convention in Valencia, Spain, teams from all three divisions received the coveted Gold Award at the beginning of March. The winning team from GF Piping Systems was Georg Fischer Hakan Plastik from Çerkezköy, Turkey. Georg Fischer GmbH from Leipzig, Germany, received the award for GF Automotive, and the prize-winning team for GF Machining Solutions was Liechti Engineering AG from Langnau, Switzerland. The Gold Award has been presented by the Executive Committee every year since 2009. ■

Gold Award winners and nominees
are pleased to receive their distinctions.

For more pictures, see:
globe.georgfischer.com

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of a second is called a femtosecond and is the speed at which ultrashort pulsed lasers pulsate. An example from nature helps to visualize this unimaginable number: in a single second, a hummingbird flaps its wing 50 times. In the time it takes for just one flap of the wing, the laser pulsates 20 trillion times. In some of its latest machine solutions, GF Machining Solutions utilizes the unique characteristics of femtosecond laser: the LASER P 400 U is specially designed for esthetic and functional texturing of extremely small precision parts. The machine can be used to process many different materials, from steels to carbides, to ceramics and sapphire glass. As femtosecond lasers have such a high pulsation rate, there is no heat transfer to the material. Therefore, the technology provides increased texturing possibilities, eliminates the need for post-treatment, and thus results in higher-quality parts.

Laser power: **20W**
Laser pulse duration: **up to 300 femtoseconds**
Smallest laser beam diameter: **25–30 µm**
Integrated in: **e.g. LASER P 400 U**

IN BRIEF

Years in Down Under

Happy birthday, GF Piping Systems Australia! Around 45 employees from across Australia came together on May 10th to celebrate the business's 20th anniversary. Together with the Head of Business Unit Asia, Bruno Meier, and the local management, employees celebrated this special birthday with a varied program of activities. Besides the main site in Riverwood, a suburb of Sydney, the division is represented throughout Australia with sales offices in Brisbane, Adelaide, Melbourne and Perth. ■

New innovation and production center

The groundbreaking ceremony for the new GF Machining Solutions site took place in Biel, Switzerland, on March 8, 2017. Covering an area of around 24 500 m², a state-of-the-art production plant will be built to manufacture machine tools and spindles. The first employees will move in at the end of 2018. The three existing sites of Nidau, Ipsach and Luterbach will be brought together under the roof of the new building, which will provide space for a total of approx. 450 attractive workplaces. Over the next three years GF is investing about CHF 80 million in the new plant in Biel. ■

Under a single roof

GF opened a new office in the Japanese capital of Tokyo at the end of March for the employees of all three divisions. CEO Yves Serra inaugurated the new office in the presence of the management, local partners and guests from the three divisions. Around 50 GF employees will be based in the south of the city in the Shinagawa Crystal Square building. The new location will mainly accommodate sales specialists and replace the three separate offices of the divisions in Tokyo. ■

+ For more pictures, see:
globe.georgfischer.com

HOW DID IT GO?
27 YEARS AT GF

Bruno Meier
Head of Business Unit Asia at GF Piping Systems in Singapore

27 years ago … Bruno Meier began working as Industrial Sales Manager Export at GF Piping Systems in Schaffhausen where he was tasked with developing new markets. “In Asia, for example, we had only one joint venture and a few reps,” as Bruno Meier recalls. So he suggested establishing a sales company. It was no sooner said than done. He initially went out to Singapore in 1994, before moving to Australia eight years later. He was involved in setting up GF companies at both locations. One coup he is particularly proud of is the takeover of the Australian Industrial Pipe Systems Company in 2000. That was how GF acquired a 50-percent stake in Chinaust, a joint venture founded in 1987 with the Chinese Lingyun Group. Chinaust has ranked as the largest company within GF since 2012.

And in the upcoming years? As Head of Business Unit Asia and based in Singapore, Bruno Meier is now tasked with putting the new Vietnam and Indonesia locations “on the road to success”. And what does he do to unwind? He might go swimming, read a book or visit a nature reserve in the north of Singapore. “There’s even wild crocodiles there,” he says with a wink. Which makes him think of his adopted home, Australia. That’s where he and his wife will eventually be moving when they retire. And where the next challenge – kitesurfing – awaits.

PROJECT
ADDITIVE MANUFACTURING

In a joint project GF Machining Solutions and GF Piping Systems improved the quality of mold inserts for the production of plastic valves. The inserts were produced with the innovative machine AM S 290 Tooling, which is based on technology from EOS. The strategic partnership between GF and the global leader in the field of additive manufacturing has been in place since 2015.

ADDITIVE MANUFACTURING

Additive manufacturing, also referred to as 3D printing, is based on 3D design data. Special machines build up an object layer by layer using materials like plastics, metals or composites in powder form. Additive manufacturing therefore differs significantly from traditional machining defined by material removal, such as milling a piece from a solid block of metal. With additive manufacturing, even highly complex structures can be easily created, allowing for a design-driven manufacturing process.

New ways towards the perfect mold

A collaboration between GF Machining Solutions and GF Piping Systems has resulted in improved mold inserts for a plastic valve. A classic win-win situation thanks to additive manufacturing.

A mobile phone case, jewelry, a mug or a vase, even toys – the idea of creating a tangible object is enticing. 3D printing is capturing imaginations. As 3D printers become less expensive, they are making their way into homes. But for quite some time now, 3D printing – or additive manufacturing as it is also called – has found a whole range of uses in industrial settings. "As a relatively new technology, developments are coming fast," says Dogan Basic, who has been Product Marketing Manager for additive manufacturing at GF Machining Solutions in Geneva, Switzerland, since January 2016.

"We are at a stage with the technology in which we are working out what is better to build with additive manufacturing, and where traditional technologies are still the option of choice," explains Dogan Basic. An area targeted by GF Machining Solutions is mold making. In an effort to expand capabilities in this area, the colleagues at GF Machining Solutions were on the lookout for a partner. In the end, the partner they found was basically right next door: GF Piping Systems.

Need for better molds

In initial meetings with GF Piping Systems, it soon became clear that there was room for improvement in regard to cooling the mold inserts used for the lower parts of the pressure regulating valve (PRV) DN50. "As with all injected plastic parts, size accuracy, evenness, flow lines and weld lines have a big impact on functionality. Injection moulded parts that exceed the defined sizes, have to be scrapped, because there is the danger of leakage from the entire valve," says Anton Gansner, Head of Technology at GF Piping Systems in Seewis, Switzerland. The main cause of these quality problems is non-homogeneous thermal regulation during injection, due to suboptimal cooling and heating channels. "When mold inserts are made with traditional technologies, such as milling, electrical discharge machining or drilling, there are limits on creating perfect channels," says Dogan Basic.

A case for 3D printing, the additive manufacturing team from GF Machining Solutions decided. The task was to create identical mold inserts in terms of external geometry, but completely different regarding the internal structure. The advantage of additive manufacturing in this case is that the heating and cooling channels can be designed in a way that they follow the contours of the injection moulded parts. This means that they can be placed in regions which were previously inaccessible when using traditional manufacturing techniques. So thanks to additive manufacturing new mold inserts were created in metal first, and then finished with traditional methods. The best of both worlds.

Goal achieved

The new mold inserts were sampled and tested under production conditions at the GF Piping Systems plant in Seewis. The result is convincing: "Thanks to optimal cooling during production, the new parts meet specified parameters even better. The surface is more even and welding lines could be considerably reduced," reports Anton Gansner.

The new mold inserts are currently undergoing process validation, and once approved they will be used for regular production. "With this application we can produce more safely and in the end with a lot less to scrap," Anton Gansner is certain. Both the teams of GF Machining Solutions and GF Piping Systems were so satisfied with the results that they aim to find additional possibilities for collaboration on further injection moulded parts. "The goal was fully reached," Dogan Basic is pleased to report. A classic win-win situation: GF Machining Solutions has more use cases to improve its additive manufacturing competence, and GF Piping Systems is able to manufacture higher-quality products. ■

Dogan Basic
is Product Marketing Manager for Additive Manufacturing at GF Machining Solutions in Geneva, Switzerland.

Anton Gansner
is Head of Technology at GF Piping Systems at the plant in Seewis, Switzerland.

COVER
EQUESTRIAN EVENTER VIRGINIE FRIGO

Firmly in the saddle

Virginie Frigo is an eventing rider. It is a sport that demands skill and bravery. Last year the SAP specialist from GF Machining Solutions in Geneva even entered the French amateur championships.

Some slight leg pressure from Virginie Frigo is all it takes for her horse Requiem du Crêt to take off at a gallop. The pair cut across country through wet grass and marshy hollows towards a small river before heading uphill, eventually reaching the protective leaf canopy of a sparse woodland of mixed deciduous and coniferous trees. The evening silence is broken only by the horse's snorting and stamping. The 29-year-old woman adapts to the rhythm of her dark brown gelding. She absorbs the horse's regular movements and is totally at one with herself, focused on the here and now. She breathes in the aromatic scent of the earth and the trees and observes her environment carefully. She occasionally picks up the pace, shifting her weight to encourage Requiem to jump over a tree trunk or branch lying across their path. She pats his neck with praise.

After about an hour the pair returns, tired and happy, to the stables. "In the saddle is where I can clear my mind. All my stresses are blown away," says Virginie Frigo, explaining her great love for cross-country riding. A discipline that has its drawbacks – the obstacles are immovable, they don't collapse at a touch like in show jumping. But the petite Frenchwoman has no fear. She is decidedly brave, disciplined and exudes fighting spirit. She even participates in eventing tournaments – a demanding combination of dressage, cross-country and show jumping. She doesn't really mind where she places in the contest. For her, it's all about being able to evaluate her personal performance better.

Riding is a welcome change from her work on the computer at the Geneva office of GF Machining Solutions, where she manages all the available configuration variants for more than a hundred machines. Whenever a new machine comes onto the market or an existing one is modified, the configuration specialist enters all the possible equipment features in the SAP system. With her work she provides great support for the global sales team. That is because more and more customers are looking for a machine precisely tailored to their individual needs. Thanks to Virginie Frigo's work it is possible to check in just a few clicks whether or not the configurations they want can be realized. She is in constant contact with Sales and Product Management across the company in order to get hold of the right data. "I really like working with the colleagues from various countries and cultures. Every one of them is different," she says.

Like a married couple

A keen horsewoman, Virginie Frigo has been working at GF Machining Solutions for the past six years. Exactly the same length of time that she and her gelding have been together as a team, if not friends. But their relationship didn't get off to a smooth start: At just four years old and still inexperienced, Requiem ›

Close relationship: Virginie Frigo and her horse Requiem have immense trust in each other. But if she doesn't give him the attention he seeks, he can quickly turn jealous.

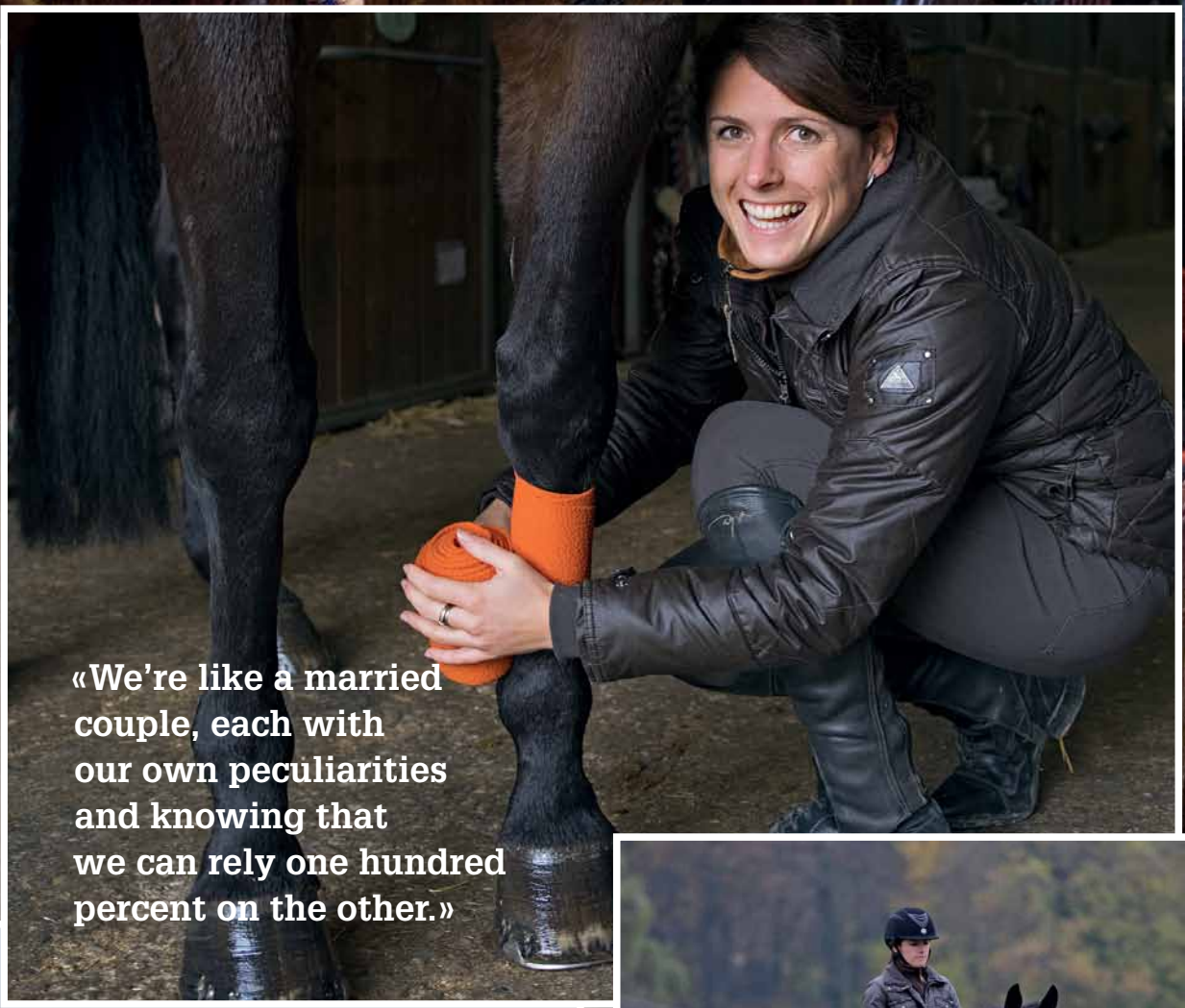
› refused a fence in their first tournament together. It took a great deal of effort and coaxing for Virginie Frigo to get him to jump. Since then the two have been constantly developing their skills and have built up trust in one another in countless hours of training in the dressage arena, around show jumping courses and riding cross-country. "Today we are like a married couple, each of us with our own peculiarities and knowing that we can rely one hundred percent on the other," is how the product specialist describes their special relationship. To illustrate the point, she recounts how Requiem, who is otherwise so calm, quickly gets jealous when his partner doesn't give him the attention he craves. Like if she spends too long getting changed or chatting with her riding friends. "Then anything that gets in his way will be thrown all over the place," says Virginie Frigo with a smile.

Today she knows her horse so well that she can tell exactly what mood he is in. That is especially important when competing so that she can adapt herself to Requiem's form on the day and not overtax him. Because there is no such thing as a practice ride. Therefore, she walks the course several times before every cross-country competition, looking at the ground conditions and planning how she's going to ride up to the obstacles to ensure that Requiem can immediately master them safely even at high speed.

A happy chance

Virginie Frigo came to eventing by pure coincidence. The stables where she took her first riding lessons at the age of ten specialized in the discipline. Step by step she learned first dressage, then show jumping, before trying out cross-country for the first time at the age of 15 – and falling in love with it straight away. Her love of riding has even shaped her career. She decided to study engineering because the university was located close to the stables. It was in a subsequent training program with one of the university's partner enterprises ›

Virginie Frigo spends countless hours with her horse, either out in the field or grooming him in the stables. She can now even sense what mood Requiem is in.



«We're like a married couple, each with our own peculiarities and knowing that we can rely one hundred percent on the other.»

MILITARY ROOTS

Eventing incorporates the disciplines of dressage, cross-country and show jumping. The winner is the pair that ends up with the least penalties. The cross-country test, a hurdle race over massive natural obstacles, is the focal point of eventing and is a not uncontroversial legacy of the sport's very origins. It evolved from a type of military cross-country riding popular at the turn of the 20th century among cavalrymen keen to test the endurance and athleticism of their horses. The considerable strains placed on animal and rider alike regularly led to some bad falls, often with fatal consequences. The competition conditions were made less onerous as a result, and since 1996 every horse has to pass a mandatory veterinary examination after the cross-country test. While only officers were allowed to take part in the sport's Olympic premiere in Stockholm in 1912, women have been participating since 1964.

Close dialog: the SAP specialist is responsible for keeping product features up to date in the SAP system, thereby supporting her colleagues in global sales.

«What I like most about my job is that I get to work with colleagues all over the world. Every one of them is different.»

› that she learned how to do variant configuration in SAP. And in 2011 it was this knowledge that got her a job offer from GF Machining Solutions in Geneva – just half an hour's drive from her stables and her home in France. "A lucky chance," is how she describes it. She likes her work and appreciates the flexible hours it offers. She gets to the office at seven o'clock in the morning to make sure that she has enough time to take care of Requiem after work. Even so, it is not always easy to find enough time for working and riding as well as keeping up with friends and family.

Catching up together

She drives out to the stables every evening and spends about two hours with her horse, which is an important part of her life: the time is scheduled for grooming, riding and feeding. It would be hard for her to free up any more time for training and competing. Her hobby already calls for the strict organization of her day. And that is why it is not so important for Virginie Frigo to ride in too many competitions. So she was quite surprised to find out she had qualified for the 2016 French amateur eventing championships in Tartas. At first she couldn't even believe she had collected the necessary number of points. After all, she rides for pure enjoyment and not for sporting ambition.

But when she does compete she wants to give her best. "Even if it doesn't go so well in the first discipline, you still have to carry on and try to fight your way forwards," is she convinced. Which is exactly what she did with Requiem in the French championships. After a less-than-perfect dressage round she caught up and finished 24th out of 42 starters. Naturally this was thanks to an excellent performance in the dedicated team's favorite discipline: cross-country. ■

✚ For more pictures, see:
globe.georgfischer.com

3x3

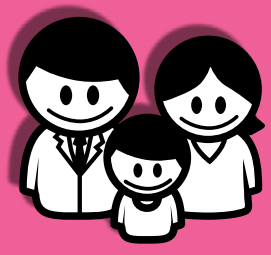
Jusuf Becirovic
Project Manager IT and Communications Technology, GF Automotive, Herzogenburg, Austria

Kelyn Ong
Customer Service Representative, GF Machining Solutions, Singapore

Tim Savarese
Tooling Technician, GF Piping Systems, Easton, USA

I like travelling …

… with my family.
Jusuf Becirovic



… with my family.
Kelyn Ong

… with my girlfriend.
Tim Savarese

My favorite GF team event:

The Oktoberfest in Altenmarkt, Austria, with my colleagues.
Jusuf Becirovic

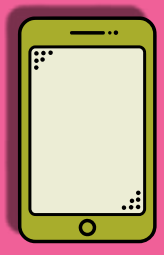
The Christmas Party.
Kelyn Ong

The Steak Cookout.
Tim Savarese

I think the most useful invention in the world is:

FOR ME THERE ARE THREE: THE COMPUTER, THE CELL PHONE AND THE INTERNET.
Jusuf Becirovic

WHEELS. BECAUSE THEY ARE THE MAIN COMPONENTS FOR TRANSPORTATION.
Kelyn Ong



The cell phone.
Tim Savarese

JOIN IN AND **WIN!**

And here are the new questions:
1. The hero/heroine of my childhood was …
2. Letter or e-mail?
3. I've worked at GF for:

Take part and send your answers along with a portrait photo with "3 x 3" in the subject line to: **globe@georgfischer.com**
All entries will be included in our competition on page 40.

PORTRAIT
JUSTIN SORENSON

Gotcha!

For Justin Sorenson, Sundays mean one thing: paintball.
He likes the fast pace and the adrenaline kick that comes from running and jumping around. The sport is a contrast to his job as Field Service Engineer at GF Machining Solutions in Lincolnshire, USA.

Sunday, 7:15 AM. The first rays of sunlight have made it over the mountains near Justin Sorenson's home in Riverside, California. On his way out of the house, he closes the door quietly, careful to not wake his wife. During the week Justin Sorenson is a Field Service Engineer at GF Machining Solutions in Lincolnshire, serving customers in the region that stretches from the Mississippi River to the West Coast. But on Sundays it's all about taking part in paintball tournaments. Justin Sorenson throws his bag of equipment into his car, turns the ignition and his Mazda hatchback springs to life. Half an hour later he is at the paintball field; some teammates are already there. After putting on their protective clothing and doing several warm-up exercises, it's time to play. An air horn blasts and the action starts.

Hooked from the beginning

The 33-year-old has been playing paintball for ten years now – he started while he was in the navy. "A buddy asked me to join him, and I loved it from the beginning," he recalls. For the first year he played just for fun. The goal was to avoid getting hit with a paintball, a gelatin shell filled with biodegradable food coloring launched with a type of air gun called a marker. "But I have a competitive nature and I always want to get better at what I'm doing," he admits. So after about a year Justin Sorenson started playing competitively.

A match starts with two teams of five to seven members each. The teams take their position on the outer borders of the field, which is scattered with inflatable canvas bunkers to hide behind. In the center is a flag – the goal is to capture it. Players hit by a paintball have to retreat to the pit on the sidelines and wait out the rest of the match. It is over when a team scores four points or after twenty minutes have passed – whichever comes first. Then it is time to play against the next team.

It's adrenaline pure: running, shooting, yelling and jumping around. Justin Sorenson loves the action – a fast-paced version of tag, he calls it. For him it doesn't have anything to do with war. "It's a totally different mindset," says the former navy man.

Deep concentration

Justin Sorenson's job as a Field Service Engineer for EDM machines and CNC is in stark contrast to his favorite pastime. At work, Sorenson is calm and methodical, especially when troubleshooting at a customer's site. "Sometimes very little information is available, so I apply deductive reasoning. It can be challenging, but the biggest gratification is when I get a machine back up and running," he says. Paintball has helped with one aspect: "On the field there's no coach to give instructions. So we have to communicate concisely among ourselves, for example to warn of an approaching opponent. I've been able to apply that type of concise communications to the contact with customers," Justin Sorenson reflects.

He has been working at GF Machining Solutions since 2008, almost as long as he has been playing paintball. His job allows him to work with concentration, his hobby enables him to let off steam. His work combined with paintball keep him in balance, which is something his wife is also aware of: "If I end up missing a Sunday tournament for whatever reason, my wife says I get crabby. Then I know it's time to get out there and play paintball," Justin Sorenson says with a smile. ■

For more pictures, see:
globe.georgfischer.com

FROM SURVIVALIST GAME TO COMPETITIVE SPORT

The sport of paintball traces its origins to 1981 when a group of friends got together in the US federal state of New Hampshire and came up with an outdoor survivalist game. By the 1990s, paintball had spread considerably, with technological developments for the equipment keeping pace. At the same time, different forms of the game evolved. One is competitive paintball with local, regional, national and international tournaments. Safety standards are high, and referees stop games if any safety measures are breached.

WHO INVENTED IT?
MSA 4 WELDING MACHINES

Welding made easy

With the latest generation of MSA welding machines GF Piping Systems takes electrofusion to the next level. In launching the MSA 4.1, the division is the first company to deliver an electrofusion unit with a wireless handheld device.

Soon after Roberto Cappon joined GF in 2008, he was in Schaffhausen for a training. He was talking to some colleagues when one of them pulled the first-generation iPhone out of his pocket, saying, "This thing has changed my life – so many tasks have become so much easier." The colleagues agreed that products from GF should not only make everyday jobs easier to accomplish, as they already do, but that they should also be a reason for real excitement.

This experience planted a seed within Roberto Cappon – a seed which took a while to germinate – but which finally bore fruit with the market launch of the MSA 4.0 and 4.1 welding machines in early 2015.

The inspiration for the new generation of machines came to Roberto Cappon directly from his customers. To get an idea of what could best support installers in their daily work, he went out in the field and closely observed each step of the welding process. And he found that customers in the gas and water distribution business were looking for more flexible and future-oriented solutions for jointing plastic piping systems. This experience was really important: "I knew we had to concentrate on a solution which required as few touches and swipes as possible."

Based on this insight, Roberto Cappon and his team developed the new MSA 4.0 and 4.1 machines which guide users through the jointing process: the installer just has to connect the fusion cables to the fitting, scan the fusion parameters and leave the control to the machine. One speciality of the MSA 4.1 is that it comes with a wireless handheld device which automatically transmits the required information to the electrofusion unit via a Bluetooth interface. The device has a similar look and feel to a smartphone and the user can even take photos and videos for documentation purposes. In addition, both the MSA 4.0 and 4.1 have an intuitive interface and can be configured in a snap.

An integrated 2D scanner and GPS help to collect valuable additional information, such as the traceability data of fittings, pipes and tools as well as the coordinates of the weld position. Once the piping system is installed below ground, these data are very helpful to provide efficient service later on. At the end of the welding process, all the recorded data are saved to a high-capacity internal memory which can also be accessed from a personal computer for deeper investigation.

Since the introduction of the new MSA 4.1, Roberto Cappon has received much positive feedback from users. "Especially younger people who have grown up with smart devices really enjoy using the MSA 4.1," he reports. In fact, the reaction has been quite the same as when Roberto Cappon and his colleagues encountered the iPhone for the first time: today, the MSA 4.1 creates a similar buzz with installers. And what makes Roberto Cappon especially proud is that GF was the first to enter the market with an electrofusion unit with a wireless handheld device. ■

Roberto Cappon
studied telecommunications and computer sciences. After holding different positions in the telecommunications sector, he joined GF Piping Systems in Padua, Italy, in 2008 as a Product Management and Development Director. To date he has been involved in the development and successful market launch of five products.

ELECTROFUSION – THE WIRES DO THE WORK

Installers use the MSA 4 welding machines for jointing plastic piping systems used in gas and water distribution. For the welding process, a heating wire molded into the fitting is heated with low-current voltage from the electrofusion unit. The material surrounding the wire subsequently melts and expands with the heat. The heat is also transferred to the pipe, which itself expands and melts in the welding zone. The gap between the pipe and the fitting closes and a homogeneous welding connection forms.

MSA 4.1

Electrical sensors
react in the event of emergency

Lightweight housing
in rugged design to withstand harsh conditions at worksites

Large graphical display
with big fonts, intuitive icons and integrated online help

Plastic feet
keep the electronic core of the machine out of mud and dust

HANDHELD DEVICE

WiFi and 3G
network connectivity

Photo and video function
for comprehensive documentation

Automatic data transfer
via Bluetooth

For a video on the application, see:
globe.georgfischer.com

CUSTOMER PORTRAIT
RINSPEED

Four wheels and a vision

What does the car of tomorrow look like? With its unique concept cars, Swiss company Rinspeed gives an idea of what mobility could look like in the future. With its lightweight components GF Automotive also contributes to these visions.

Living plants inside the car, right behind the windscreen? As far as Frank M. Rinderknecht is concerned, that isn't such an absurd idea. The Swiss automobile visionary has built a mini-garden into his latest concept car, the futuristic city car "Oasis". "Mobile urban gardening" is what Frank M. Rinderknecht calls the concept. The Oasis, which premiered in January at the Consumer Electronics Show (CES) in Las Vegas, is already the 23rd concept car developed by Rinspeed, Rinderknecht's ideas factory. The visionary vehicle studies realized in Zumikon near Zurich focus on topics like e-mobility, digitalization and autonomous driving.

Self-driving cars enable people to use their time on the road for activities other than driving. The Oasis itself is practically a living room on wheels. Rinspeed has equipped its two-seater city car with swivel chairs, which allow a panoramic view through the vehicle's glass sides or can even be used as cinema seats to sit back and enjoy a movie. This all works thanks to the aluminum seat supports from GF Automotive in bionic lightweight design.

No steering wheel, no problem

The Oasis is Rinspeed's fourth concept car that GF Automotive has been involved in. "Our first contact with Rinspeed came about in 2013," explains Guido Rau, Head of Research and Validation at GF Automotive. The fall of that year was when collaboration began on the vehicle study for the "XchangE", a self-driving luxury tourer built on the basis of a Tesla S. One of the clever things about this vehicle, which was showcased at the Geneva Motor Show in 2014, is that the steering wheel can be moved between driver and passenger. When the car is driving in autonomous mode, the steering wheel settles into a position in the middle of the dashboard.

The movable steering wheel carrier comes from GF Automotive. "The question for us is how a component like this needs to look like," explains Guido Rau. The solution was found in a bionically designed aluminum casting, in other words a components whose shape is inspired by nature and transferred to technical structures. This results in extremely stable and lightweight support structures. "We apply our cutting-edge knowledge to the components we develop for Rinspeed," explains Guido Rau. The special challenge: there is much less time available between the development and the finished prototype stage than there is with conventional projects. The engineers from GF Automotive have only about two months to develop the parts. "We are taking the rapid prototyping principle to the extreme here," says Guido Rau.

New components for e-mobility

Through this cooperation with Rinspeed, GF Automotive is demonstrating that the division is fit for the future of the automotive industry, which faces enormous disruption. "The future lies in electromobility," says Guido Rau. He is convinced: "This trend opens totally new opportunities for us." How this could look like GF Automotive has shown, for example, in the "Budii", which Rinspeed unveiled in 2015. The electric city car based on ›

Guido Rau, Head of Research and Validation at GF Automotive, is a strong believer in the possibilities of electromobility.

Rinspeed showcased its self-driving concept car, the "Σtos", at the 2016 Geneva Motor Show. GF Automotive supplied the display carrier next to the steering wheel.

The "Budii", a small electric car based on the BMW i3, enables simple interaction between man and machine. The centerpiece of the car is a functional touchscreen with a lightweight aluminum frame made by GF Automotive.

› the BMW i3 is completely dedicated to the interaction between man and machine. The central operating console and display in the Budii is a large touchscreen positioned between driver and passenger. A lightweight aluminum frame made by GF Automotive holds the display on the center console.

"When it comes to developing parts for the inside of the vehicle, it's not just the functionality we need to ensure but an attractive design too," says Guido Rau. This is a new challenge, given that GF parts are normally built into the vehicle in some hidden location. Components for Rinspeed must suit the style of the car. In the case of the Budii that means clean lines that harmonize with the futuristic look of the vehicle with its swivel steering wheel on a robotic arm and with its telescopic camera.

Innovation demands close coordination

Another display frame, though one of a very different style, was crafted by GF Automotive for Rinspeed's 2016 hybrid sportscar "Σtos". The Σtos is another car for which Frank M. Rinderknecht had a very special idea for the steering wheel. When the vehicle is operating in self-driving mode, the steering wheel disappears completely into the dashboard. At the same time, two curved 21.5 inch monitors appear which enable passengers to look up real-time information on the route, watch movies or make video calls. The aluminum frame made by GF Automotive elegantly complements the sporty look of the Σtos. The absolute highlight of the modified BMW i8 is a drone with a landing platform at the back of the vehicle, which serves as an eye in the sky during the drive.

The ability to realize ideas like these depends on Frank M. Rinderknecht's team collaborating closely with GF Automotive and numerous other partners. "To make sure that all parts of the car fit together, we are in constant contact with all involved parties, during the short design phase," says Guido Rau. The project for the next concept car already began in the spring of 2017. Whether it will end up with or without a steering wheel remains to be seen. But what it will certainly feature is new ideas from Frank M. Rinderknecht and parts from GF Automotive. ■

An agile electric speedster for town and country: the "Oasis" has large glass panels and clad front wheels. GF Automotive supplied a bionic aluminum seat support for this car.

The "XchangE" is a fully electrically powered luxury tourer. The futuristic steering wheel – complete with lightweight support made by GF Automotive – can be electrically stowed in the middle of the vehicle.

For more pictures and videos, see:
globe.georgfischer.com

Frank M. Rinderknecht, founder of the ideas factory Rinspeed, has collaborated with GF Automotive since 2013.

"We want to tell stories"

It all began in the late 1970s with importing sunroofs and selling autotuning kits. But that was not enough for Frank M. Rinderknecht, the founder of Rinspeed AG. He soon began to develop his own visions for future vehicles. Today, Rinspeed is one of the world's leading idea factories for concept cars.

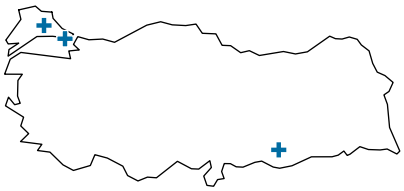
Mr. Rinderknecht, how do you actually come up with the idea for a concept car?
Our vehicles are the result of a long creative process. We are constantly thinking about what the mobility of the future might look like, and we make up stories that we want to tell with our vehicles. For instance, we think about the worsening air quality in our big cities. The Oasis is our vision of how people could be moving around healthily in the city of the future.

How important are the partners you cooperate with to bring these ideas to life?
They are fundamentally important. Without partners like GF Automotive we would not be able to realize our concept cars. They give us access to technologies and expertise on which we depend. On the other side, the companies get a realized vision of a vehicle, which they would not have been able to create themselves. This way, they also can promote their products and services.

What is the expertise that GF Automotive is bringing in?
This is of course mainly the division's lightweight construction expertise. Modern cars are showing a tendency to become heavier and heavier. Not just because they are getting bigger, but also because they need additional components and electronics for new technologies such as autonomous driving. In order for these cars to remain efficient, I believe that lightweight but very stable casting parts made out of light metal will play a key role. This is a craft that GF Automotive has mastered to perfection.

Do you have any ideas for the next concept car already?
You'll have to wait and see. But what I can say is that our cooperation will continue on the next project and GF Automotive will again be contributing an innovative component. ■

SITE PORTRAIT
ÇERKEZKÖY, TURKEY



The best of two worlds

The GF Piping Systems business in Turkey has grown significantly as a result of the Hakan Plastik acquisition in 2013. The pipes that roll off the assembly line in Çerkezköy are primarily for the Turkish market, though many are also sold abroad.

Family company meets corporate culture. East meets West. Could this be a recipe for success? Back in 2013, GF Piping Systems acquired the Turkish family company Hakan Plastik, which is today known in the market as Georg Fischer Hakan Plastik. Founded in 1965, the company initially manufactured and sold piping systems for buildings, water and gas distribution, and agriculture in the Turkish market, and started export sales in 1997. "Definitely a recipe for success," says Batuhan Besler, who joined the company in 2014 and is now Managing Director of Georg Fischer Hakan Plastik and all its sites in Turkey.

The merger brings together the best of two worlds. "On the one hand we have the GF corporate structures and processes, and on the other the Turkish flexibility and ability to adapt. Both have been important for doing business," explains Batuhan Besler. Yet not only has the market responded well to the acquisition, employees are happy about it too because of the added stability.

In total, 730 people work for Georg Fischer Hakan Plastik. Around 80 percent are employed in the company's two production facilities. Since 2002 the primary production site is in Çerkezköy, some 110 kilometers west of Istanbul. The main products manufactured there are pipes and fittings for a whole range of applications. A second plant is operated at the other end of the country in Şanlıurfa. Together the two production sites have a yearly capacity of 200 000 tons of pipes.

The remaining 20 percent of employees work in administration and sales. In August 2016, a new Training & Technology Center was opened in Istanbul. Here the company provides technical and practical courses for its sales employees as well as for key customers, installers, service providers and students.

Expanded footprint

Over the years, Hakan Plastik earned an excellent reputation as a leading provider of plastic piping systems in the building technology and utility segment, not only domestically but also in the Middle East and Eastern Europe. GF Piping Systems was no stranger to these markets either, and particularly in Turkey was present with exclusive distribution contracts. "By coming together in 2013, the two companies have created synergies and a much larger footprint," says Batuhan Besler. Today Georg Fischer Hakan Plastik provides more than 10 000 products to customers in 70 countries worldwide. ›

From Çerkezköy
Georg Fischer Hakan Plastik delivers more than 10 000 piping products to customers worldwide.

Batuhan Besler, Managing Director of Georg Fischer Hakan Plastik, is not only an expert in piping systems. He is also well familiar with managing Western European companies in Turkey.

Cansu Altun – the connector
In 2013, fresh out of college, Cansu Altun joined Georg Fischer Hakan Plastik as an Executive Assistant. Today she is an HR Training and Development Specialist. "My job involves finding the most efficient training courses to ensure that our employees are ready and motivated to support necessary changes to further develop our business," she says. To achieve this, she brings people from all over the company together. Perhaps it should come as no surprise that one of her favorite pastimes is assembling jigsaw puzzles.

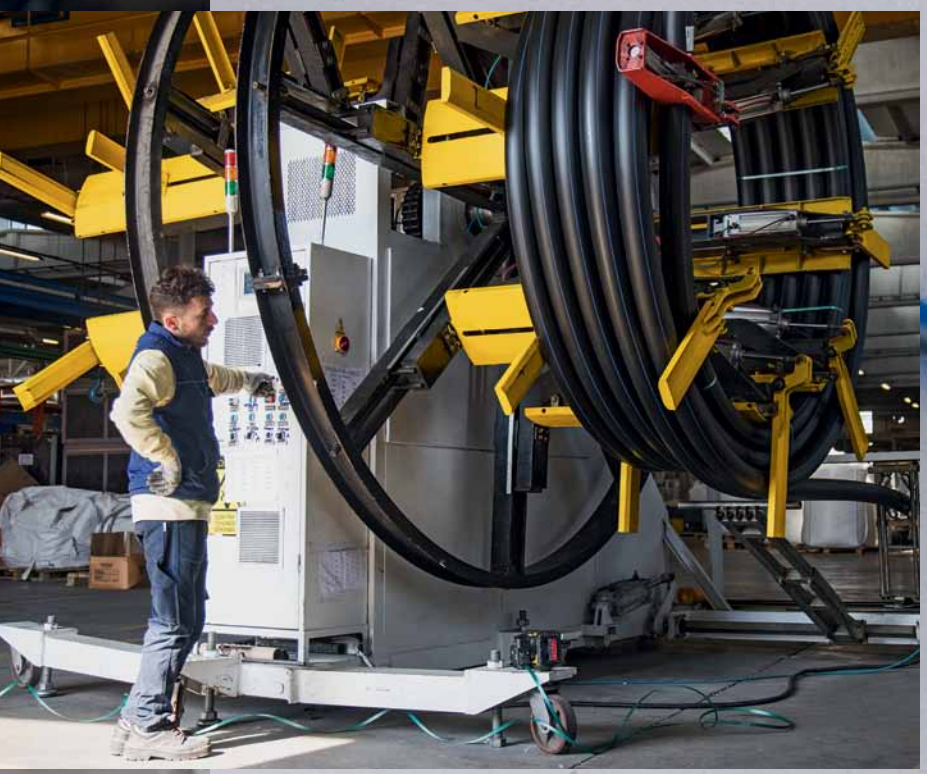
Kemal Celikkaya – the sports fan
As a Quality Assurance Manager at Georg Fischer Hakan Plastik in Şanlıurfa, Kemal Celikkaya naturally has a strict eye on quality. "It's becoming a philosophy of life here in Şanlıurfa," he says. For him, it starts with the mind: "You need to think high quality first." That doesn't mean he is not up for a bit of fun at work with his colleagues when the situation allows. He spends his time off with his family, for example catching a movie or cheering on the Fenerbahçe Sports Club's basketball and soccer teams.

Georg Fischer Hakan Plastik has about 730 employees. Around 80 percent work in production, the other 20 percent in administration and sales.

Hayati Felamur – the constant learner
No two days are alike for Production Manager Hayati Felamur at the Çerkezköy plant. "My job is far from routine, so I have the possibility to learn something new every day," he says. With the fast pace and high tension he experiences on a daily basis, excitement runs high. So in his free time, Hayati Felamur seeks the opposite, for example with long walks in the nature and photography. A perfect holiday destination is anywhere with a river, mountains and forest, he says.

Candan Mumcuoglu – the team player
One of the newest members of the team is Candan Mumcuoglu, who joined Georg Fischer Hakan Plastik in September 2016 as the Marketing Manager. She likes the analytical part of her job, whether it has to do with examining the market, customers or sales. Yet she also enjoys working with people and the variety it offers: "I always like working with different teams from different functions to realize successful projects." Travel is a favorite activity for the mother of a one-and-a-half year old girl.

Since 2016 the new Training and Technology Center in Istanbul has been providing attractive workplaces and modern spaces for training courses.



› Construction remains one of the key sectors in Turkey – a sector that has been growing continuously since 2010. Here Georg Fischer Hakan Plastik has been successful with its soundproof piping system known as Silenta. Urban infrastructure is another area of interest for the company. In addition, Georg Fischer Hakan Plastik has set itself the target to more strongly grow export sales to the Middle East as well as to other destinations like Africa, India and European countries where GF Piping Systems is not yet represented. The primary focus is on big projects in the building sector, such as the Four Seasons Hotel in Kuala Lumpur, Malaysia, and the World One Tower in Mumbai, India.

Well equipped for challenges ahead

The man at the helm, Batuhan Besler, couldn't be better equipped to guide Georg Fischer Hakan Plastik with its East-West, family-business corporate DNA. The mechanical engineer with a Turkish passport has held senior positions since 1996 in a number of companies – including companies with headquarters in Austria and Switzerland. "I was well familiar with managing Western European companies here in Turkey when I took on the job in 2014," he reflects. What makes GF Piping Systems stand out in his mind is that the company lives and breathes its values by acting fast, putting customers first and rewarding performance. Nonetheless, he appreciates the flexible structures which enable adaptations to suit his home market. "Here in Turkey business is very dynamic, but also fragile and volatile. So our people have to be adaptive and find quick solutions even under tough conditions," he says.

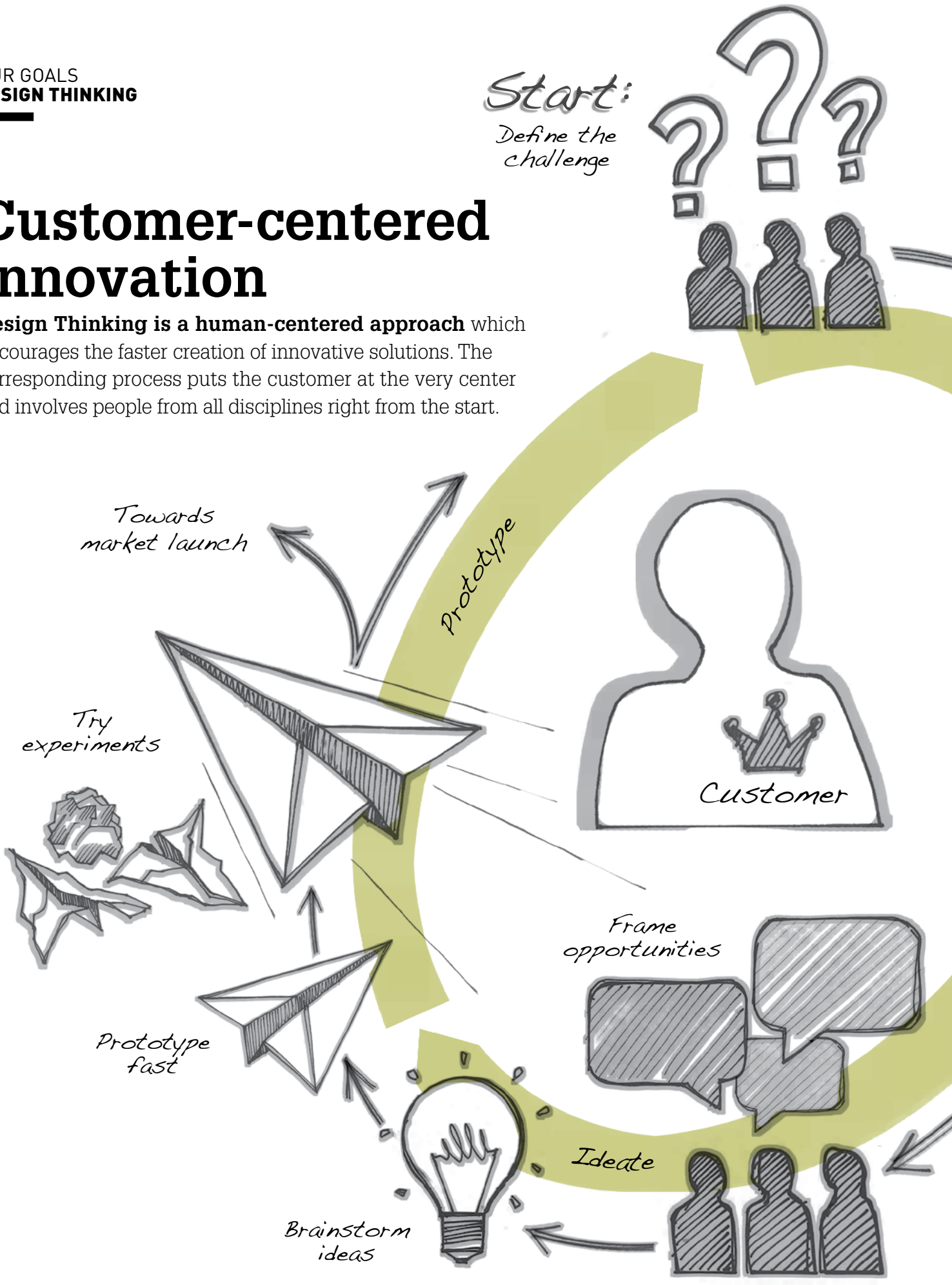
Four years may have passed since the acquisition, but the previous family owners are still connected with the company on an informal basis. "We talk on the phone, get together every now and then. We strive to keep the relationship alive," reports Batuhan Besler. That is Georg Fischer Hakan Plastik – a perfect blend of family business and corporate culture. ■

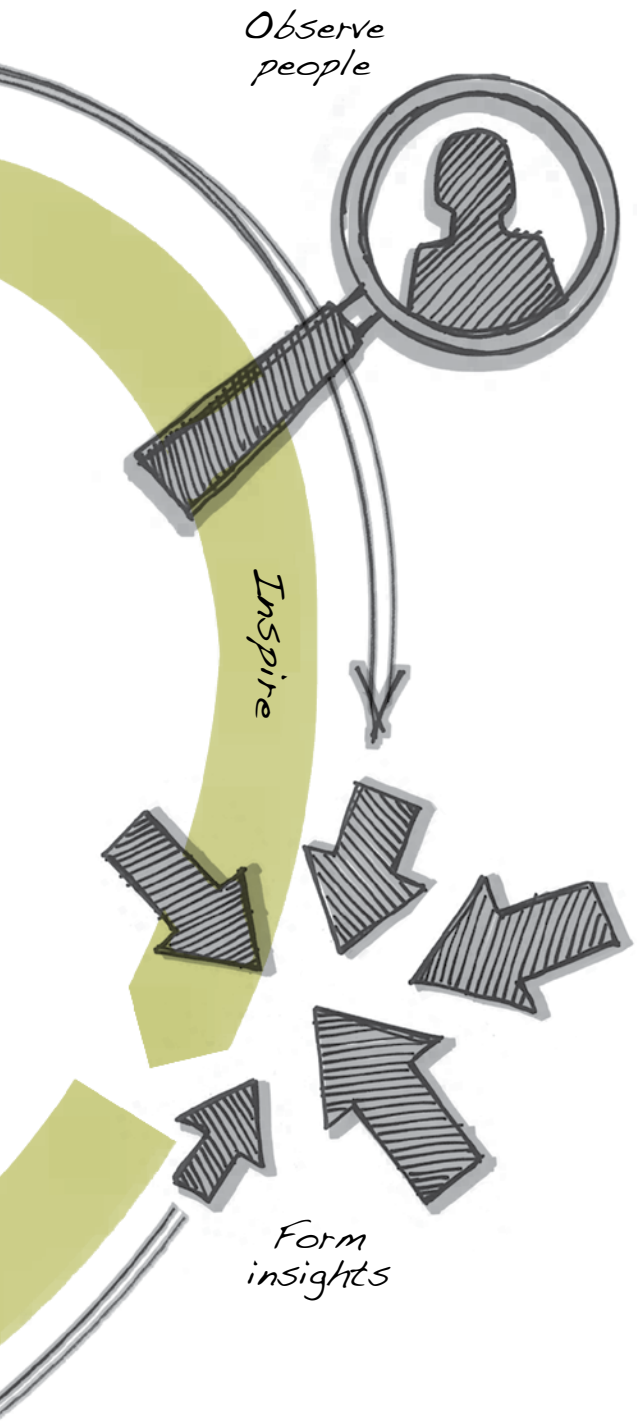
For more pictures, see:
globe.georgfischer.com

OUR GOALS
DESIGN THINKING

Customer-centered innovation

Design Thinking is a human-centered approach which encourages the faster creation of innovative solutions. The corresponding process puts the customer at the very center and involves people from all disciplines right from the start.





“Innovation is not restricted to R&D”

The kick-off of Strategy 2020 also marked the launch of a corporate-wide initiative on Design Thinking. CEO Yves Serra tells us what is so unique about the approach originally developed by the Californian company IDEO.

Mr. Serra, driving innovation excellence is one of the strategic thrusts of Strategy 2020. What can Design Thinking achieve in this context?
Design Thinking puts customers at the center of our thoughts, developing our skills to notice their needs and consequently speed up our innovation tempo. I believe this is what we need in order to differentiate ourselves from competitors and shift our portfolio towards higher value businesses.

Why is the initiative being rolled out across the whole Corporation?
Innovation is not restricted to R&D. It is a team effort spanning all functions. This is why this initiative is being rolled out across functions in all three divisions.

What does that mean specifically? How is Design Thinking being implemented in the company?
We will train more than 1 000 employees across all divisions on the topic of Design Thinking. Workshops are currently running all around the globe. This is well under way. In addition, we have launched initial projects in each division and defined teams which are in charge of the implementation. Our goal is for Design Thinking to quickly become an integral part of our Corporate culture. ■

Design Thinking at GF

More than 800 employees have participated in training on Design Thinking so far. In addition, first reference projects have already started. In each division a core team is responsible for the successful implementation of Design Thinking at GF. The team members provide support and embed the approach across the organization:

«Design Thinking is both a method and a mindset. Everybody can apply it in their daily work and is encouraged to do so!»

Coordinator Design Thinking at GF:
Laura Barrabia Gil,
Strategic Project Manager

«Design Thinking places the customer at the center of attention. This mindset enables us to differentiate ourselves from competitors.»

Coordinator Design Thinking at GF Piping Systems:
Stefan Schaffhauser,
Head Global Market Segment Management

«The fast approach helps us to speed up our time-to-market with solutions that fit perfectly to the customer's desires.»

Coordinator Design Thinking at GF Automotive:
Udo Kreutzarek,
Head of Innovation Management

«Design Thinking allows all project members to contribute their individual skills and creativity.»

Coordinator Design Thinking at GF Machining Solutions:
Rea Schegg,
Strategic Planner

For video statements, see:
globe.georgfischer.com

So far 27 training sessions have taken place at seven GF locations on three continents. Here are some impressions from workshops in Switzerland, Vietnam, China and the USA. More pictures from workshops worldwide at **globe.georgfischer.com**

OUR MARKETS
SOLAR POWER

Sunny outlook

On the edge of the Moroccan desert, one of largest solar power plants in the world is taking shape. Thousands of castings from GF Automotive are playing a supporting role. The contract is a successful example of how attractive markets are being developed beyond the automotive sector.

This is a project that is setting new standards. And "a project that is pushing the door to the significant future market of solar power wide open for GF Automotive," as Norbert Pomplun, Key Account Manager at GF Automotive in Leipzig, Germany, stresses. In the east of Morocco, not far from the town of Ouarzazate, an enormous 30 square kilometer solar power plant is currently being built under the name of "Noor" (Arabic for "light"). From 2018 onward, the four separate plants that make up this construction project are going to supply an output of 580 Megawatts – with the help of innovative solar thermal technology. Of all the mirrors required to realize the project, 3 700 will have their special brackets supplied from the plant in Leipzig.

The components are part of an impressive system within the Noor complex: Positioned in a circle around a 240 meter tall tower, the mirrors reflect the sun's rays onto the top of the tower. Inside, a brine solution heats up to several hundred degrees Celsius and flows into a heat exchanger. The water vapor this produces is enough to generate electricity with a turbine. What's special about it is that the liquid salt stores the heat for around 15 hours, which means that the power plant can operate cost effectively around the clock.

"Solar thermal energy is a new market for GF Automotive. It is a perfect fit for our Strategy 2020, one of the aims of which is to make ourselves less dependent on industry cycles," explains Norbert Pomplun. The contract to produce the brackets was tightly scheduled at just seven months long, and it was also technically and logistically demanding. The size and weight of the components alone was one of the issues: the upper housing and lower flange together weigh almost 600 kilograms. The brackets ensure that the 180 square meter solar mirrors can perfectly align themselves and maintain their position even in a storm. The final parts were shipped from Leipzig to Morocco in February 2017.

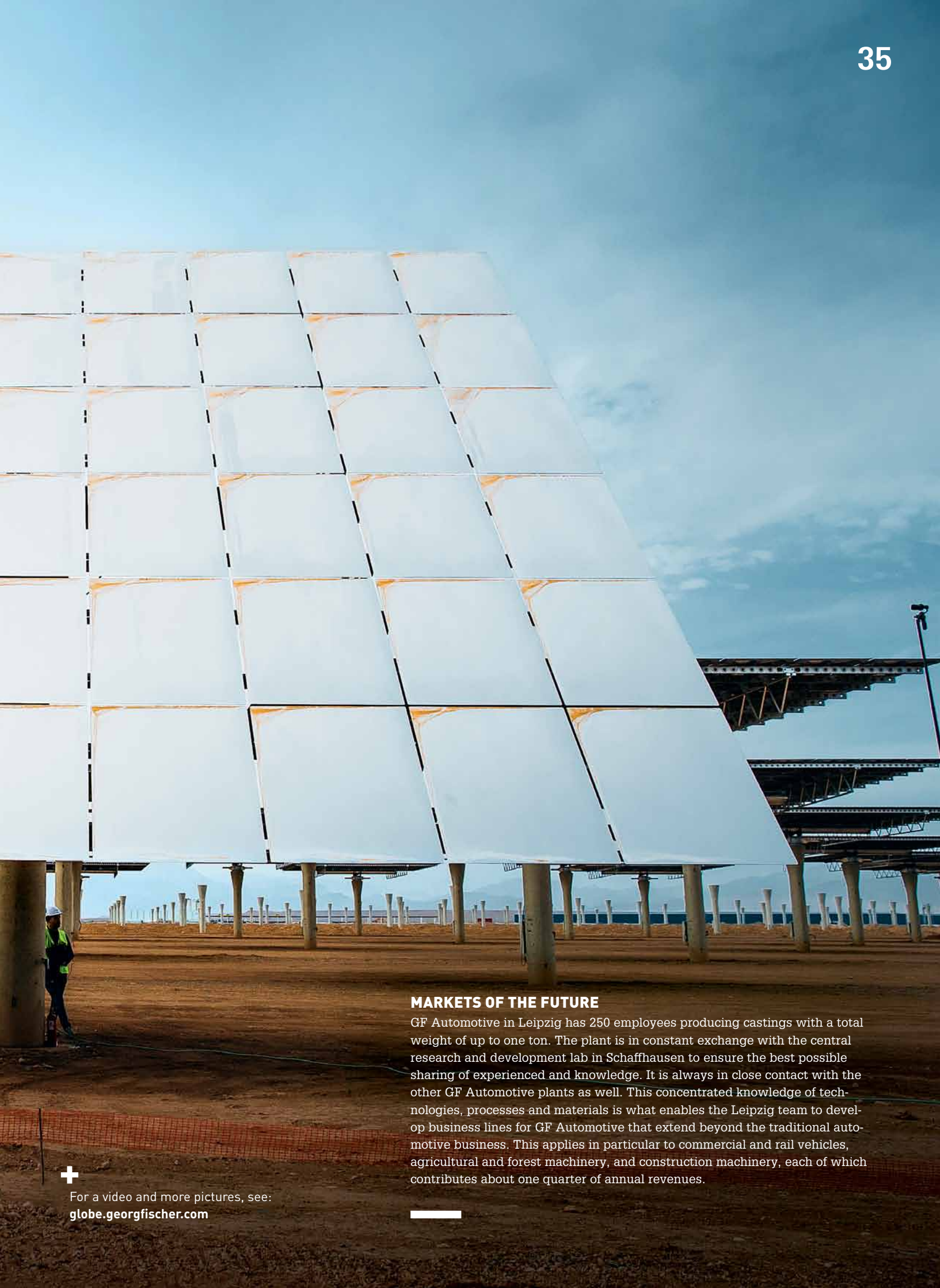
Norbert Pomplun, Key Account Manager Off-Highway and Industrial Applications at GF Automotive in Leipzig.

Growing solar market

GF Automotive gained this assignment on a recommendation: a customer drew the attention of high-tech company Sener to the plant in Leipzig. Norbert Pomplun and his team took the opportunity to convince the international company of the Leipzig plant's expertise as a system supplier. This included the supply of turnkey and specially coated components at top quality, along with the handling of logistics and the inclusion of local machining experts. "We hope that more contracts will follow from Sener," says Pomplun. The company is already working on new solar thermal projects in South America and South Africa.

To date, renewable energies make up around six percent – and rising – of total revenues at the Leipzig plant. About half of the products coming out of the segment go overseas, which is where the biggest growth potential lies. Besides the core markets of Western Europe, Scandinavia and North America, Norbert Pomplun has his eye on the emerging markets of South America and Africa, where solar power is currently booming.

According to a study by international consultancy Bain & Company, the fast growing economies in the emerging nations will need to double their energy investments in the coming 25 years in order to meet the domestic energy needs. Instead of buying in fossil fuels from overseas at high prices, they are increasingly focusing on their own renewable energy projects. Morocco's example demonstrates this quite clearly: the north African nation needs to import 95 percent of its fossil fuel supplies. In a bid to reduce its dependency, the country plans to have more than half of all its electricity generated by renewable sources by the year 2030. So the Noor solar power plant is only the start of this development – from which GF Automotive will also be able to profit. ■



MARKETS OF THE FUTURE

GF Automotive in Leipzig has 250 employees producing castings with a total weight of up to one ton. The plant is in constant exchange with the central research and development lab in Schaffhausen to ensure the best possible sharing of experienced and knowledge. It is always in close contact with the other GF Automotive plants as well. This concentrated knowledge of technologies, processes and materials is what enables the Leipzig team to develop business lines for GF Automotive that extend beyond the traditional automotive business. This applies in particular to commercial and rail vehicles, agricultural and forest machinery, and construction machinery, each of which contributes about one quarter of annual revenues.

For a video and more pictures, see:
globe.georgfischer.com

HEART AND SOUL
MICHAEL SCHUBERT

Cast away in a conservation area

Michael Schubert is what he calls a "casual adventurer". As he puts it, "Whenever there's something exciting to be experienced somewhere, I'm there." A little while ago he saw a TV documentary that piqued his interest in the Baltic Sea island of Ruden. The island is a conservation area for rare animals and plant species. The charity Verein Jordsand e. V. manages the small 24 hectare island and regularly seeks volunteer helpers. That is how Michael Schubert came to find himself on the island for about a week just before Christmas. Completely alone. A real castaway experience.

He stayed in the charity's island cottage, which has no running water; the electricity for his cell phone came from a couple of solar panels. "I was quite unaccustomed to living such a spartan life," he recalls. On the island he managed biotopes, looked after a herd of sheep and made sure there was no unauthorized trespassing on the little island. Michael Schubert could even watch rare birds from up in the pilot tower.

Despite the mostly stormy weather, he really enjoyed his time volunteering in the nature reserve. "I'd do it again any time, even though the loneliness is a challenge. Being able to combine charitable work with an adventure was just a great thing." As a result, Michael Schubert is now an honorary member of the Verein Jordsand e. V. charity. As soon as a new adventure calls, he'll be ready to go. ■

Michael Schubert
has worked at GF Automotive in Leipzig since 2001. In the foundry he is responsible for work processes in the core shop and at the molding line. It's his job to make sure that production runs smoothly. On a personal level he dreams of one day making a round-the-world trip – on a bicycle.

For more pictures, see:
globe.georgfischer.com

ONLINE READER SURVEY 2016

Thank you very much for your feedback!

More employees than ever before took part in our reader survey which for the first time was accessible exclusively online. Some of the key results are summarized for you below. You can read a selection of your valuable comments at **globe.georgfischer.com**

1163

employees shared their opinions with us

Top rated!

1. Pictures (94.1% very good/good)
2. Format/size (91.3% very good/good)
3. Linguistic quality (90.9% very good/good)

83.1%

rated Globe as very good or good

Reasons for reading Globe:

87.2%

Information about GF in general

56%

Getting to know colleagues and employees

50.8%

News about my division

49.2%

News about the other divisions

Your wishlist:

- More background reports (e. g. on innovations, technologies, products)
- More stories about successful customer projects
- More news from around the company

We are always happy to receive feedback and topic suggestions: **globe@georgfischer.com**

CONGRATULATIONS TO THE IPAD WINNERS:

Angelo Cescato, GF Machining Solutions, Losone, Switzerland
Denise Strawn, GF Machining Solutions, Huntersville, USA

MY HOME
SÃO PAULO, BRAZIL

We Paulistanos – as residents of São Paulo are called – love to be outdoors. And there's no better place to witness that than in one of the city's more than 60 parks. That might sound like a lot of parks, but bear in mind that São Paulo itself has some 12 million inhabitants. I work as a Controller at GF Piping Systems. With a commuting time of around 40 minutes one way, I don't have much time to be outdoors during the week. But when the weekend rolls around, I join my fellow Paulistanos for a stroll in Parque Villa-Lobos with friends or my family. In the evenings I like to catch a movie, or have friends over for dinner.

Not to be missed by visitors to São Paulo is our most famous park, Parque do Ibirapuera. Surrounded by skyscrapers, it has a special atmosphere. A major highlight are the four museums within its borders, including Museu Afro Brasil and the Museu de Arte Moderna de São Paulo. Another definite must-do are the shops, cinemas, museums, restaurants and bars in the famous shopping street Avenida Paulista in the heart of the financial district. ■

Márcia Tiguman
joined GF Piping Systems in São Paulo in 2008 where she works as a controller. A native of São Paulo, Márcia Tiguman has three children between the ages of 13 and 22. Her favorite pastimes include exercising at the gym, zumba classes and travel.

Not to be missed in São Paulo

A walk in the park
Make sure to visit one of the city's many parks and witness the Paulistanos at play. The most famous park is Parque do Ibirapuera.

A night on the town
São Paulo is considered the world capital of gastronomy with a lot of renowned restaurants. After dinner, why not join a party? São Paulo ranks fourth worldwide for its nightlife. Be sure to check out Augusta Avenue, or the Vila Madalena neighborhood, which is known as São Paulo's bohemian center.

A treat for the senses
Vegetables, fruits, spices, fish, meat and more are sold at the Central Market. The place dates back to the 1930s and features beautiful stained-glass windows.
www.oportaldomercadao.com.br

High arts
The Ohtake Cultural Complex consists of two office towers, a convention center and a theater. Its most famous resident is the Instituto Tomie Ohtake, one of São Paulo's premier museums with changing exhibitions.
www.institutotomieohtake.org.br/en/

«We Paulistanos – as residents of São Paulo are called – love to be outdoors.»

Márcia Tiguman
Controller at GF Piping Systems
in São Paulo, Brazil

JOIN IN AND **WIN!**

Would you like to present your home to your GF colleagues? If so, please send an e-mail with "My home" in the subject line to **globe@georgfischer.com**. All entries will be included in our competition on page 40.

GLOBE 2·2017
IMPRINT

Published by
Georg Fischer Ltd.
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Amsler-Laffon-Str. 9
CH-8201 Schaffhausen

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Production
Signum communication GmbH,
Mannheim, Germany

Translation
Baker & Harrison, Munich, Germany

Printing of the Chinese edition
DE Druck Europa GmbH, Berlin, Germany

Printing of other editions
abc Druck GmbH, Heidelberg, Germany

Image credits
Bryan van der Beek, Christoph Busse, Darrin Vanselow, David Zentz, Felipe Perucho from the Noun Project, Filipe Frazao, Helmuth Scham, Javier Cabezas from the Noun Project, LSE Designs from the Noun Project, Maxim Kulikov from the Noun Project, Oscar Durand, Rinspeed, SENER

Other images: GF

FSC www.fsc.org MIX From responsible sources FSC™ C006828

carbon neutral natureOffice.com | DE-135-307008 print production

Globe is published four times a year in German, English, French, Italian, Turkish, Spanish and Chinese with a total print run of 14 000 copies.

The next issue will be published in August; the editorial deadline is June 9, 2017.

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COMPETITION

JOIN IN AND **WIN!**

Take your chance!

Win an iPad Air 2, Bose wireless headphones or a JBL Bluetooth speaker. A prize draw will be held among all employees who send in entries under the sections **Hello!, 3×3** and **My home.** Send an e-mail to **globe@georgfischer.com** with the appropriate subject line. We look forward to hearing from you. The winners will be announced in the next Globe.

Here are the winners of the last competition:
1st prize: Katrin Kreimel (GF Automotive in Austria)
2nd prize: Kelyn Ong (GF Machining Solutions in Singapore)
3rd prize: Alex Quanchi (GF Piping Systems in Switzerland)

All entries which could not be included in the printed magazine can be viewed online at: **globe.georgfischer.com**

The closing date for entries is June 9, 2017.

Conditions of entry
The competition is organized by GF. All employees of GF are entitled to take part. The winner will be established by means of a draw among all submissions entered within the deadline. Cash payment, payment in kind or an exchange of prizes are excluded. Participants agree to their name being published if they win. Any recourse to legal action is excluded.