

# Globe

+GF+

THE GLOBAL MAGAZINE  
FOR GF EMPLOYEES

ISSUE 2-2019

## Hitting the water

Glenn Barnes bears a large amount of responsibility at GF Linamar (USA). He's also a top water skier > 12

### Showroom in China

GF Machining Solutions brings customers to its site in the boomtown of Chengdu > 32

### Big goals

New markets and technologies: Carlos Vasto discusses transformation at GF Casting Solutions > 28

### Great atmosphere

Massive data centers keep the Internet up to speed – GF Piping Systems keeps things cool > 22

# HELLO!



Sint-Pieters-Leeuw



## Antoine Schellens

Sint-Pieters-Leeuw (Belgium),  
29 March 2019,  
3:15 p.m.

Today, exactly 30 years ago, our sales company Belgium/Luxembourg was founded – a reason to celebrate together. As I took this snapshot of my colleagues, you don't see me in the picture.

Antoine Schellens is Marketing Assistant at GF Piping Systems in Sint-Pieters-Leeuw.



You can find further submissions to HELLO! online at [globe.georgfischer.com](http://globe.georgfischer.com)



Milwaukee



## Greg Swanson

Milwaukee (USA),  
29 March 2019,  
3:15 p.m.

At that time, I was at the Discovery World Museum in Milwaukee with my family. We were enjoying the sailing ship exhibit, as you can see.

Greg Swanson is Technical Sales Coordinator – System 3R at GF Machining Solutions in Lincolnshire.

### JOIN IN AND WIN!

What are you doing on  
**28 June 2019**  
**at 10:00 a.m. local time?**

Send your snapshot with "Hello!" in the subject line and a short description to:  
**[globe@georgfischer.com](mailto:globe@georgfischer.com)**

All entries will be included in our competition on page 40.

# CONTENT

## 2·2019

**MADE IT!**

### Unique Position on the World Market

Additive manufacturing is picking up pace – including at the GF AMotion Center in Stabio. 10

**COVER STORY**

### Hitting the Water

Glenn Barnes water skis in his free time. He's just as ambitious about it as he is about his work at GF Linamar. 12

**OUR MARKETS**

### How Computers Stay Cool

Innovative products for a new market: GF Piping Systems becomes the leading provider of cooling solutions for server parks. 22

**OUR LOCATIONS**

### Go Southwest!

GF Machining Solutions wins over customers in the booming region of Southwest China with its Center of Competence in Chengdu. 32

**TO GO**

### Small Steps, Big Impact

Valuable tips for sustainable action – at the workplace and beyond. 37

**MY HOME**

### Palm Trees and Circuit Boards

Lorena Hofmann raves about her new home, Singapore. 38

- 02 HELLO!
- 06 IN BRIEF
- 07 PRODUCT IN FIGURES
- 09 TWO POINTS OF VIEW
- 17 3x3
- 36 HEART AND SOUL
- 39 IMPRINT
- 40 COMPETITION



28

**OUR OBJECTIVES**

### The New GF Casting Solutions

Division Head Carlos Vasto on change, opportunities, and his vision for the future.



18

**ONE DAY WITH**

### Powerhouse Kelly Rossi

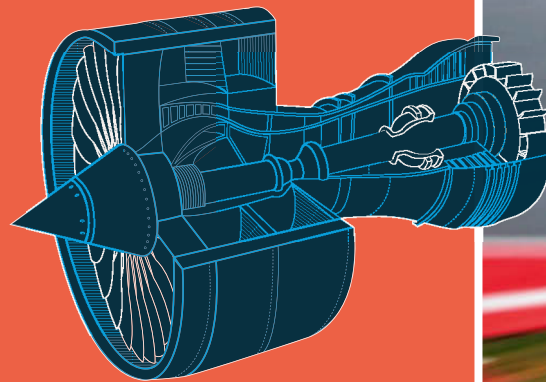
This early riser manages the GF Piping Systems plant in Bakersfield, California, where piping systems made of PVC and CPVC are manufactured.

24

**OUR CUSTOMERS**

### Power and Passion

Renault F1 Team has been relying on products from GF Machining Solutions for over 20 years.



20

**THAT'S HOW IT WORKS!**

### Full Speed Ahead into the Future

3D printing and big data are major trends in aviation and aerospace. What shapes the market, and what role does GF play?



# EDITORIAL

## Blazing New Trails

**Dear colleagues,**

GF is known for its reliability and the quality of its work, among many other things. One of the Corporation's key characteristics tends to go forgotten: Over its 200+ years of existence, GF has always responded to new market developments and societal changes and blazed new trails accordingly.

GF Casting Solutions is currently undergoing this type of realignment. This entails new plants, new market segments, and new technologies – it might sound simple, but it poses a major challenge to management and employees. Read pages 28–31 to learn about how Division Head Carlos Vasto wants to master this challenge, and what employees think about the transformation.

A new market segment has become key to GF Piping Systems over the past few months: data centers. Hundreds of them sustain the global digital infrastructure – and they're growing in numbers and importance. Read page 23 to learn about new opportunities GF sees in this field.

When something new comes around, there's no guarantee that everything will work right away. Our cover story subject, the American Glenn Barnes, has internalized a corresponding motto: "If everything goes wrong, you need to stand back up and do it better the next time around." This passionate approach also defines the partnership between GF Machining Solutions and Renault F1 Team (starting on page 24). This cooperation also continuously demands new solutions – to become even better and stay one step ahead of the competition.

I hope you enjoy reading and learning about these exciting topics.

**Beat Römer**  
Head of Corporate Communications



## IN BRIEF

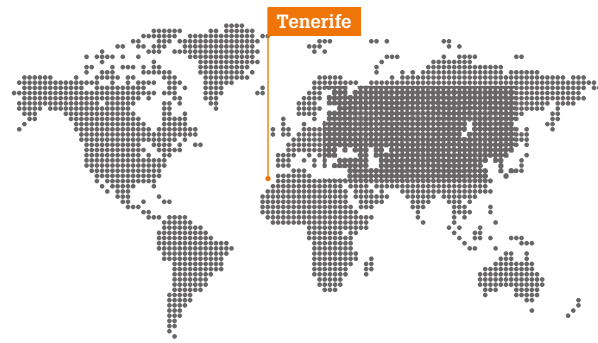


[sustainability@georgfischer.com](mailto:sustainability@georgfischer.com)

**Achieving the Sustainability Targets 2020** will only be possible with the dedication and work of all GF locations and employees. Do you have an idea about how to improve sustainability at your location, or has your team launched a sustainable project? Let us know.

## Even More Sustainable

GF further improved in the area of sustainability in 2018. The interim results show that GF is on the right path to fulfill the Sustainability Targets for 2020 as well. These were defined along the value chain in 2015 and categorized into the areas of products and innovation, procurement and logistics, people and safety, and environment and energy. Further information is available in the 2018 Sustainability Report on [georgfischer.com](http://georgfischer.com).



## Gold Awards for Team Achievements



**Gold Award nominees and winners** with the GF Executive Committee (top photo). In early March 2019, Yves Serra handed out the awards for the last time as CEO at the Corporate Convention.

This year, the Executive Committee of GF also recognized outstanding team achievements with a Gold Award. In early March 2019, the coveted awards were presented by former CEO Yves Serra at the Corporate Convention, which was held in Tenerife (Spain).

Companies from the U.S., Germany, and Poland were recognized for their achievements in the 2018 fiscal year. GF Central Plastics Pipe and Fabrication from Dallas (of GF Piping Systems) received an award. GF Mecco Eckel GmbH from Biedenkopf-Wallau (of GF Casting Solutions) also received an award, as did the Sales Company under GF Machining Solutions in Raszyn. The Gold Awards have been annually granted since 2009. ■

## Mads Joergensen is the New CFO of GF

Mads Joergensen (50) has been Chief Financial Officer and a member of the Executive Committee at Georg Fischer Ltd since 18 April 2019. He succeeded Andreas Müller, who became the new CEO of the Corporation. Joergensen has a great deal of expertise in Finance and Controlling, Strategic Development, M&A, and IT. He previously served as Head of Strategic Planning and CFO at GF Piping Systems. ■



## Paris Air Show: GF Exhibited



From 17 to 23 June 2019, GF Casting Solutions, GF Precicast, and GF Machining Solutions exhibited together for the first time at the international Paris Air Show in France, where they displayed a range of solutions for the aviation and aerospace market segment. Here, at one of the world's largest, oldest, aviation trade fairs, they presented technologies such as additive manufacturing as well as processing machines and series parts for precision casting technology. ■



More pictures and videos on the news in brief at [globe.georgfischer.com](http://globe.georgfischer.com)

## PRODUCT IN FIGURES



# 8004

8'000 variants and over a million designs in the configurator – the 546 modular ball valve by GF Piping Systems is truly versatile. This valve is used in all industrial market segments, for uses ranging from shutting off water pipes through to the automated regulation of chemical processes. The 546 ball valve is available in three different activation models: manual, electric, and pneumatic, meaning adjustable with compressed air. GF Piping Systems put the predecessor model, the 346 ball valve, on the market in 1984. It was followed by the 546 ball valve in 2003; this plastic valve now serves as the reliable standard in over 100 countries. This year will mark the market launch of a new generation of this successful model: the 546 Pro. This features a newly designed lever as well as numerous additional functions, such as electrical feedback on the valve position via sensor, including an LED indicator. It is very easy to upgrade to the new model, since the installation length of the new valve body is the same as for the predecessor model. ■

**Market launch:** 2003  
**Dimensions:** DN 10 to 100  
**Production:** Seewis, Switzerland  
**Materials:** PVC-U, PVC-C, ABS, PP-H, PVDF  
**Areas of application:** All industrial market segments, especially water treatment and the chemical process, marine, and microelectronics sectors



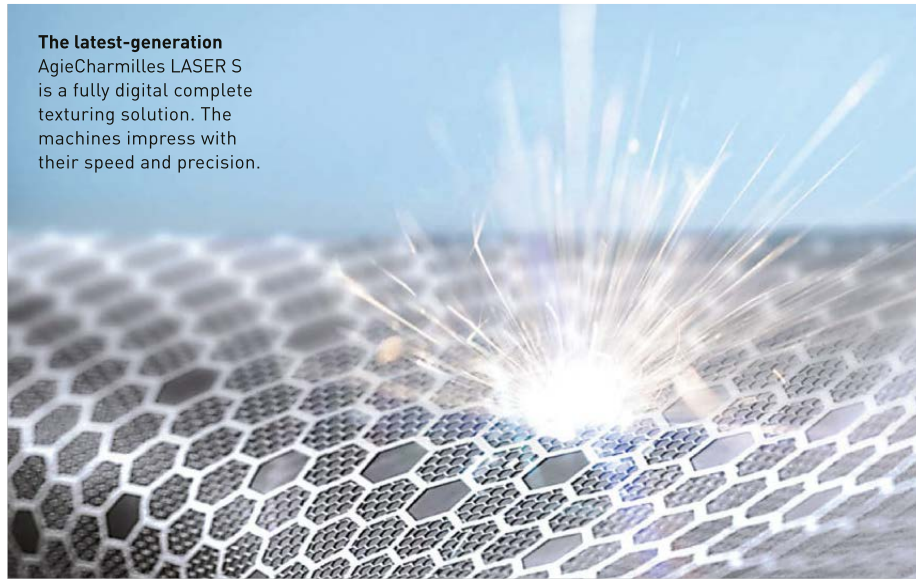
The **Iron Library** is celebrating its 70th anniversary this year. It was founded in 1948 by Georg Fischer Ltd and is integrated into the Klostersgut Paradies near the headquarters in Schaffhausen (Switzerland). At the Klostersgut a matinee as well as a vernissage for a book exhibition and the publication of the latest art guide for the monastery were held on 5 May to celebrate the anniversary. ■



Scan the QR code and watch all the statements at [youtube.com](https://www.youtube.com)

## What Design Thinking Can

The Design Thinking method, which was launched Corporate-wide in 2017, promotes innovation and strengthens the focus on customers. To fortify the initiative and demonstrate its effectiveness, Senior Managers of GF locations around the world recorded personal statements that premiered at the 2019 Corporate Convention. ■



The latest-generation AgieCharmilles LASER S is a fully digital complete texturing solution. The machines impress with their speed and precision.

## New Laser Series

GF Machining Solutions launched a new generation of its AgieCharmilles LASER S machines in spring 2019 in Europe, Asia, and the U.S. – ten years after the first machine in the series came onto the market.

The new LASER S series was developed in order to boost user productivity as well as to guarantee compliance with

the highest quality standards. It provides product designers and mold manufacturers with a highly efficient, fully digital complete texturing solution. It can be used to manufacture difficult-to-implement designs and minimize deviations in quality. Moreover, the new Laser machines offer reduced fine texturing times and minimize possible operating errors. ■

## GF Piping Systems Going Lean

The production team working at GF Piping Systems launched a project that promotes lean management in the division in the spring of 2019. Lean management is a management and organizational concept that is distinguished by continuous process improvement and the efficient design of the entire value chain.

Training sessions are planned to take place at all 28 production companies by the end of 2020. Production employees will receive a week of training and learn in particular how they can streamline processes revolving around their own workplace with the help of certain methods, approaches, and principles, in order to work more efficiently and make optimal use of resources. ■



## TWO POINTS OF VIEW

### “What Does Sustainability Mean for You?”

**Sustainability** has always been important to me; my mother is a biologist. She’s ensured that I’ve always lived in harmony with nature. For example, when I was growing up, we set up composting to make fertilizer for our garden. My mother would bring glass, paper, plastic, and metal to special recycling sites. Today, sustainability has become important to many more people in Brazil. My hometown, São Paulo, introduced a modern recycling system in 2012. So far, around three percent of waste is recycled – it’s not a lot, but it’s a start.

Traffic and air pollution pose challenges here. Thankfully, there are initiatives to address them, such as a bike-sharing service. I tested it out a few times for commuting to work, and then I bought my own bike. Now I bike 14 kilometers to work and back each day. It takes me an hour in each direction – that really keeps me in shape!

Sustainability is also important at my workplace at GF. My team and I try to work with as little paper as possible; even if we only want to jot down a brief note, we do so on our computers. ■



**As I see it, sustainability** means living my life in a way that involves respecting nature and taking care to interact with it in a manner that ensures future generations will also be able to lead quality lives. I think that everyone can make a contribution as far as this is concerned, since even small things can have a big impact when added up. For example, I’ve organized clothing drives and regularly take part in measures to protect nature. Last year, I joined other volunteers to clean the banks of the Rhine River and weed out invasive plants. You can achieve so much in a single day!

At GF, we also take it upon ourselves to act sustainably. In order to drive this value home across the Corporation, it’s important to work together and get all employees around the world involved. I’m currently organizing our 2019 Sustainability Conference, which will be held in China this summer and bring together employees who promote the topic of sustainability at our various locations.

In both my professional and private lives, for me, acting sustainably starts with the little things – such as drinking coffee out of my own thermos instead of a plastic cup. ■

#### Anna Oetinger

studied economics and has been a Corporate Sustainability Specialist at the GF site in Schaffhausen (Switzerland) for two years. She works together with the divisions’ Sustainability Managers on measures that will help to achieve the GF Sustainability Targets for 2020.



More pictures of Lucas Borges and Anna Oetinger are available at [globe.georgfischer.com](https://www.globe.georgfischer.com)

#### Lucas Borges

is a Sales Coordinator and has been working at GF Machining Solutions in São Paulo (Brazil) since 2012. He coordinates the four-member Customer Services team in the Parts and Consumables department and he ensures that customers can be supplied with wear and spare parts at all times.





The AMotion Center Team works on the production of the future. Team members include (from left): Paolo Colombo, Valentina Zangheri, Paolo Gennaro, Davide Beretta, Gianluca Pagani (seated), Marco Salvisberg, Claudio Fiorindo, and Stefan Dahl. Pictured in the background: The DMP Factory 500, one of the world's largest 3D printers.

## MADE IT! ADDITIVE MANUFACTURING IN STABIO

# Unique Position on the World Market

**New possibilities for designing parts**, less time from customer inquiry to delivery: Parts production picks up the pace with additive manufacturing. And thanks to the AMotion Center, GF has a unique position on the market.

**Y**ou have to invest in disruptive technologies in order to develop your business and remain relevant on your markets," explains Antoine Marty, Precision Casting Strategy and Market Manager at GF Casting Solutions. "We can use these technologies to open up new business areas and models." For example, this means using additive manufacturing, which refers to the 3D printing of metal parts like aircraft engines vanes and gas turbine fuel mixers.

The advantages: 3D printing requires less raw material and less manufacturing steps and is faster for small batches than other manufacturing technologies. It is ideal for the production of prototypes and serial production of complex components.

GF is interested in three market segments in the 3D printing sector: aerospace, energy and automotive. "The role of conventional manufacturing techniques in Formula 1, such as forging and casting, is becoming less relevant," reports Marco Salvisberg, Sales Manager at the AMotion Center in Stabio (Switzerland). "This is where 3D printing is used now for manufacturing most turbocharger components, aerodynamic components, and structural parts." On the other hand, Salvisberg continues, it is not likely that monocrystalline engine blades for aircraft turbines will be printed in the future because of the specific metallurgy involved.

**Center of Competence for 3D printing**  
Flashback: At the end of 2016, the former Precicast foundry noticed more and more customers' interests in 3D printing. Understanding the potential of this technology, the

management founded an own company for 3D metal printing: Precicast Additive SA. In 2018, when Precicast became part of GF Casting Solutions, GF Machining Solutions had already started its own activities in additive manufacturing. To leverage its unique position on the market, GF combined its competences in additive manufacturing in the newly called AMotion Center, the former Precicast Additive SA. It is managed equally by both divisions. Offering both traditional and ultra-modern manufacturing methods, GF is able to provide the right solution to its customers. Currently, the focus in additive manufacturing is on very complex components in small quantities. In the medium term, the AMotion Center will support GF Casting Solutions to realize series production.

"We have a unique position on the world market with our combined know-how in casting, machining, and additive manufacturing," concludes Marty. While GF Casting Solutions can manufacture components for customers, GF Machining Solutions can supply all machines for 3D printing and post-processing.

GF's AMotion Center is one of the five companies in the world certified for aerospace part production by additive manufacturing in line with the Nadcap standard, the highest certification level in the aerospace industry. ■



## FACTS AND FIGURES: AMOTION CENTER

**Start of operation:**  
2018 (GF Precicast SA 2016)

**Location:**  
Stabio, Switzerland

**Team:**  
Several Project Managers,  
engineers, and Sales Managers

**Management:**  
In equal parts by  
GF Casting Solutions and  
GF Machining Solutions



## BENEFITS OF ADDITIVE MANUFACTURING

**Better**  
Additive manufacturing offers greater freedom in designing parts. For example, it enables the production of complex structures in components that are impossible to achieve with other processes.

**Lighter**  
Additive manufacturing makes it possible to manufacture components that are both lightweight and robust, thanks to the ideal use of materials.

**Faster**  
3D printing considerably reduces the development time for prototypes and small series runs.

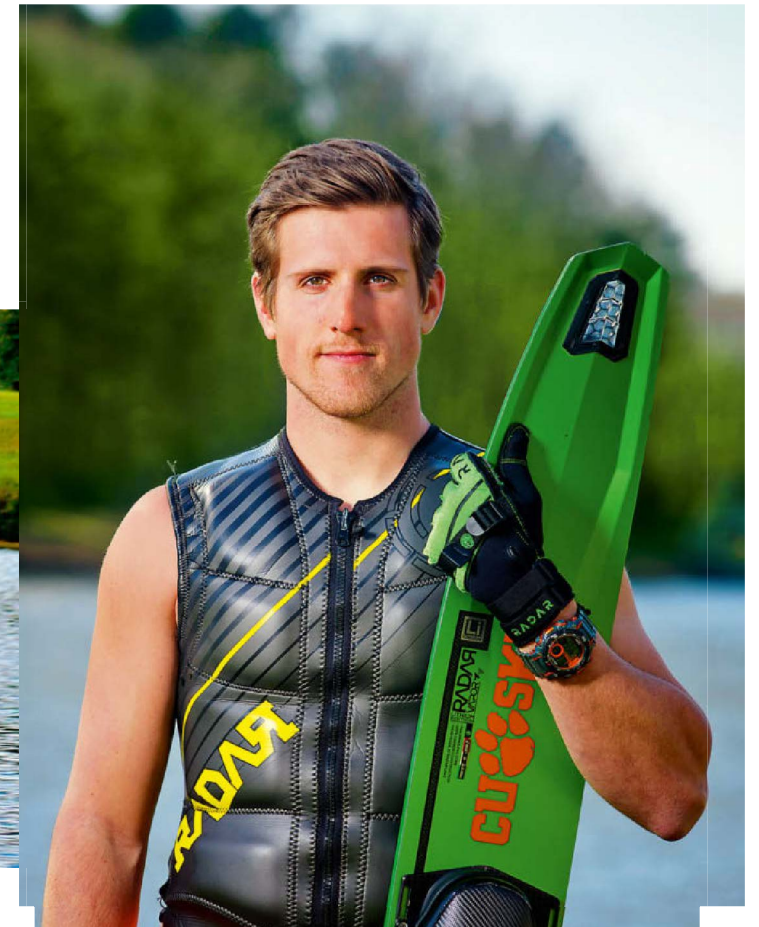
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More pictures at  
[globe.georgfischer.com](http://globe.georgfischer.com)

**COVER STORY**  
WATER SPORTS CHAMPION GLENN BARNES



**One man, three disciplines:** When it comes to waterskiing, Glenn knows no boundaries. To the left, he is navigating a slalom on a monoski, rounding a buoy obstacle course.



# Always Catching the Right Wave

**As a Program Manager at GF Linamar** in the state of North Carolina, Glenn Barnes bears a large amount of responsibility. To unwind, the 23-year-old goes waterskiing in his spare time. Glenn isn't fazed by setbacks – he sees them as opportunities to improve.

**G**lenn Barnes knows this jump isn't going to end well before he even takes off. He barrels out of the water and up the ramp, the sudden pressure knocking him off balance. On his feet, Glenn is wearing specially manufactured water skis, while his hands cling to a rope attached to the stern of a roaring speedboat. Skimming through the wake of the zooming craft, Glenn had just reached a speed of more than 65 miles per hour as he hits the ramp. He tips forwards, the skis coming off his feet. Then, Glenn is being hurled headfirst over the jump-off platform for 40 or 50 meters.

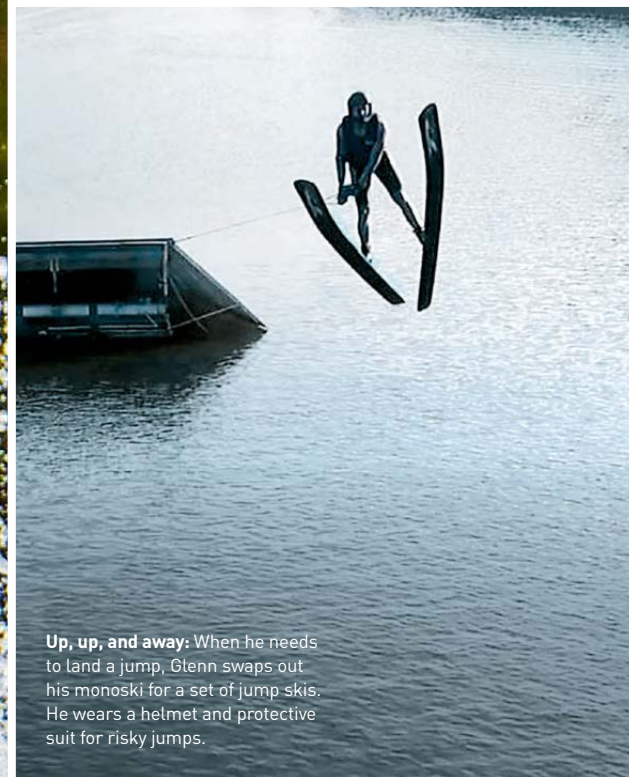
A murmur ripples through the spectators gathered on the water's edge. Instinct kicks in and Glenn performs a roll in mid-air, so he lands on his back. Then comes the impact. A cloud of mist is thrown into the air as Glenn skims the surface of the water like a pebble. His helmet and special suit prevent anything worse from happening. One shaken athlete and one cracked water ski are all that's left to prove the spectacle ever took place.

Glenn's hobby is not one for the faint of heart – at least if you're as ambitious as the >



**Name:** Glenn Barnes  
**Position:** Program Manager  
**Company:** GF Linamar  
**Location:** Mills River, NC  
**Part of GF since:** 2018

**Making a splash:** When navigating a slalom, water skiers dash across the water at nearly 40 miles per hour in an inclined position.



**Up, up, and away:** When he needs to land a jump, Glenn swaps out his monoski for a set of jump skis. He wears a helmet and protective suit for risky jumps.



23-year-old American, who works as a Program Manager for GF Linamar at the Mills River production facility in North Carolina. "My parents first took me waterskiing when I was three years old. During the summer, we always drove our boat down to the lakes in South Carolina on the weekends," he says. His parents are pure "freeskiers" for whom having fun takes front and center. "I, on the other hand, began to practice waterskiing as a competitive sport." He joined the water sports club on his first day at Clemson University and was soon successfully taking part in competitions. Glenn now practices every discipline: jump, freestyle trick, and slalom.

In summer 2018, Glenn celebrated his biggest success to date: At the U.S. national championships, he jumped 51 meters, earning him second place in his age category. His goal: first place. Also, he wants to test himself against the professionals one day. Glenn invests a lot into the sport as his weekends in the summer are dedicated to waterskiing. In the winter, he does strength training, swimming, rock climbing, and cycling to keep himself in shape. "But there are muscles that only waterskiing can train," laughs the athlete with the short, blonde hair. "It always hurts like hell at the start of the season."

**A high-flyer over water and at work**

Glenn also brings his strong will to the job. He studied for five years before he completed his bachelor's degree in mechanical engineering. To earn some money on the side, he worked for three semesters with an engineering company in Asheville. He also met the Head of Facility Safety, who was hired by GF Linamar in 2017 and quickly remembered Glenn and his work ethic. "In mid-2018, everything got going for me at GF Linamar as well," Glenn recalls.

The 23-hectare production facility is a joint venture between GF Casting Solutions and manufacturing expert Linamar. Both companies bundle their expertise to produce lightweight components for the automotive industry, with some customers being only few kilometers away.

Glenn has to shoulder a lot of responsibility. He makes sure the series production for an engine block for Volkswagen runs smoothly. "As a Program Manager, I have to keep an eye on every aspect of the manufacturing process," says Glenn. That includes choosing the right suppliers, monitoring budgets and schedules, ensuring the performance of teams and machines, quality management, and not least contact with customers. He now also coordinates the manufacturing of a strut support for BMW.

His working day normally begins with production meetings to go over the events of the previous day, followed by meetings with the teams involved. Glenn phones Europe and China, orders replacement parts, and optimizes processes. He is excited by the teamwork that his job involves, and the fact he gets to learn new things every day. "I once even helped to set up a die-casting machine and put it into operation," he says. It didn't matter to him that he was thrown in at the deep end. "I work in a dynamic environment here; it's never boring," he says.

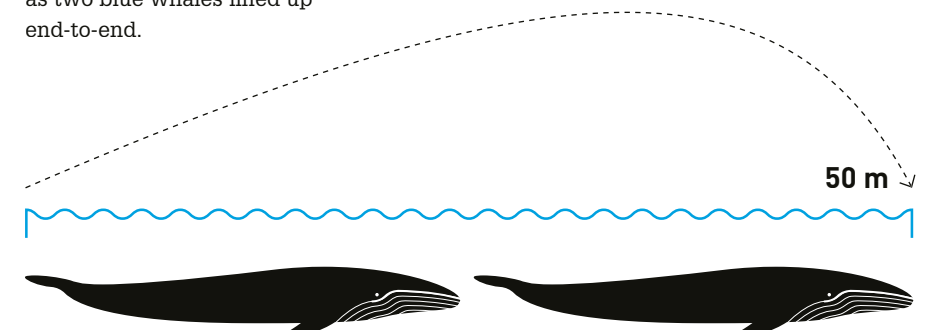
**Water skiing is more than just a hobby**

Waterskiing is the best way for Glenn to switch off. Competition is important to him, but the scene offers more than that – friendships, a familiar environment, support even among competitors. "Waterskiing is whatever you put into it," says Glenn – an attitude that isn't just useful in sports.

Glenn holds a license as a boat driver for competitions and regularly sits on the judge's stand to evaluate the tricks of other competitors. He loves coaching. "As president of the water sports club at Clemson University, I learned how to lead people and assume responsibility," says Glenn. These abilities would also come to help him in his job at GF Linamar. "I want to grow in my position and learn everything there is to know about pressure die-casting and the machines." And then? "Move up into senior management, that's my dream," says Glenn, confidently.

Having goals and ambitions are all well and good, but how well does Glenn deal with setbacks? "It doesn't always go according to plan. Things break or don't arrive on time. You can't always have a perfect result," says Glenn. "But if something goes wrong, you have to pick yourself back up and do it better next time." ➤

**Glenn jumped over 51 meters** at the U.S. national championships. That's the same distance as two blue whales lined up end-to-end.



**FUN FACTS ABOUT WATERSKIING**

The sport was founded in **1922** by the American **Ralph Samuelson** in Minnesota.

**The first patent** for water skis was filed by Fred Waller in October 1925 for his "Dolphin Akwa-Skees."

There are an estimated

**11 million** active water skiers in the U.S.

**FUN FACTS ABOUT GLENN**

**Glenn's favorite trick on the water:** the backflip.

You have to be traveling at **over 65 miles per hour** to achieve distances of 50 m and more with a jump. The fastest speed on water skis that Glenn has ever been measured at was over

**70** miles per hour.





As a Program Manager at GF Linamar, Glenn is responsible for tasks including quality assurance measures. He is responsible for ensuring that everything runs smoothly when it comes to engine block production for VW.

**GF LINAMAR**

- The joint venture GF Linamar was founded in 2015.
- Construction began in January 2016.
- The 23-hectare plant located in Mills River opened in October 2017.
- New areas for processing, assembly, and shipping were completed in the spring of 2019.
- Partners GF Casting Solutions and Linamar will invest around \$100 million into constructing and expanding the location by 2022.

**“If something goes wrong, you have to pick yourself back up and do it better next time.”**

**Glenn Barnes**  
Program Manager, GF Linamar

Initially, says Glenn, there were problems when starting the die-casting production of new engine blocks at Mills River. The first few attempts developed something what are known as “hotspots” – hard points on the surface of the cast component. “You need experience to adjust the cooling process so that these types of errors don’t happen anymore,” says Glenn. Back then, the GF Linamar team was lacking this experience. So he and some of his colleagues traveled to Germany in June 2018 to pick up a few tips and tricks at the GF Casting Solutions facility in Werdohl. The trip was a great experience for him, not just because of the expertise he acquired, but also because he got to discover a new culture – and was able to take part in a waterskiing competition that took place in Germany at that time.

Calmness, positive thinking, and determination – these traits help Glenn both in the facility and on the water. Even after his spectacular crash in the summer of 2018. “The crucial thing is to get back on the skis and go for the next jump while the adrenaline is still pumping through you,” explains Glenn. Five minutes later, he was back out and taking a run-up to the next giant leap. This time, he got the timing right, sailed through the air in a perfect V-shape, and landed smoothly.

The reward: a place on the podium – and the assurance of always being able to do a little better. ■



More pictures and a video of Glenn Barnes are available at [globe.georgfischer.com](http://globe.georgfischer.com)

**3x3**

My favorite GF Product?  
Today for lunch I had ...  
For me, sustainability means ...



**Kedar Mangaonkar**  
Plant Controller  
GF Piping Systems  
Ratnagiri (India)

**1. Tapping Saddles.**



**2. Dal (curry made of lentil) and steamed rice.**

3. ... to **use innovation** for developing a new world where we don't waste and shrink our resources.



**Anna Christiansson**  
Web Digital Marketing Coordinator  
GF Machining Solutions  
Geneva (Switzerland)

**1. I love our new CUT P Machine Series.**



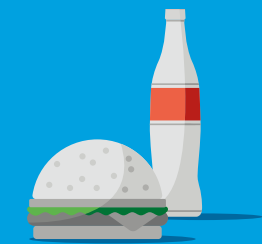
**2. SPORTS!**

3. ... small everyday actions like taking the stairs or eating **eco-friendly foods.**



**Didem Çalışkan**  
Sales Support  
GF Hakan Plastik  
Şanlıurfa (Turkey)

**1. PE100 pipes.**



2. ... **a burger,** potato chips, and coke.

3. ... to **preserve** our **natural resources** for future generations.



**Here are the new questions:**

1. I would like to travel to:
2. Country living or big city flair?
3. Today on the way to work ...

Take part and send your answers along with a portrait photo and “3x3” in the subject line to: [globe@georgfischer.com](mailto:globe@georgfischer.com)  
All entries will be included in our competition on page 40.



You can find further submissions to 3x3 online at [globe.georgfischer.com](http://globe.georgfischer.com)

ONE DAY WITH  
KELLY ROSSI



**Name:** Kelly Rossi  
**Position:** Plant Manager  
**Division:** GF Piping Systems  
**Location:** Bakersfield (U.S.)  
**At GF since:** January 2018

## The Early Riser

Kelly Rossi manages the Bakersfield plant of GF, where PVC and CPVC piping systems are manufactured. She leads a team of 42 employees. It is important to her to offer her colleagues more than just a safe working environment; Kelly is convinced that employees need to enjoy their work in order to be truly motivated and efficient.



5:00 a.m.:

The early bird catches the worm; and in Kelly's case, this means to catch up with the night shift employees. Her alarm clock goes off bright and early at 4:00 a.m. Kelly gets into her Honda HRV equipped with a mug of coffee while her three dogs and fiancé, Fidencio, are still sleeping.



6:08 a.m.:

After an hour's drive, she reaches Bakersfield. The plant manager puts on her steel-toe boots and safety glasses, then greets each member of the night shift crew with a handshake and checks if everything is fine. This morning tour lasts about an hour.



8:50 a.m.:

As she does every morning, Kelly meets with plant management in the "Solution Zone" for their daily exchange. They frequently address the scrap rate, line speed, and changeover times.



11:02 a.m.:

Kelly doesn't eat breakfast, so she takes her lunch break relatively early, around 11:00. On days when she doesn't bring a bag lunch, she goes out to eat with her colleagues. Today, they're having a classic California meal: In-N-Out burgers with fries.



1:27 p.m.:

After her lunch break, Kelly examines the mini power plant built from fuel cells which supplies the production area reliably with energy. This natural gas aggregate was installed last year and significantly reduces CO<sub>2</sub> emissions. Kelly and her colleagues at the Bakersfield plant are constantly looking for new ideas of how to make production more sustainable.



2:15 p.m.:

Whenever "Big Mama" malfunctions, Kelly's alarm bells go off and she teams up with her colleagues to solve the issue. This huge machine, which is officially named "Line 10," produces piping systems that are up to 24 inches in diameter. Today Kelly is happy – everything works just fine!



6:48 p.m.:

CrossFit helps Kelly wind down after a long day of work. Afterwards, she and her fiancé like to take it easy; for example, as today, by taking their French bulldogs Leila and Tito and their boxer Mila for their daily walk.



More pictures of the day with Kelly Rossi at [globe.georgfischer.com](http://globe.georgfischer.com)

**THAT'S HOW IT WORK!**  
AVIATION AND AEROSPACE TRENDS

# Full Speed Ahead into the Future

Aviation and aerospace are important markets for GF. GF Casting Solutions and GF Machining Solutions are global leaders when it comes to aircraft components and the machines that manufacture them. However, this market is changing: The demand for more sustainable products is posing new challenges in terms of aircraft engines efficiency. New production methods such as 3D printing accelerate the pace of developing new engines. Moreover, larger volumes of data are necessary to design and produce new parts. The infographic depicts how these major trends are affecting GF.

**55%**

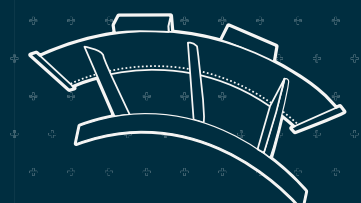
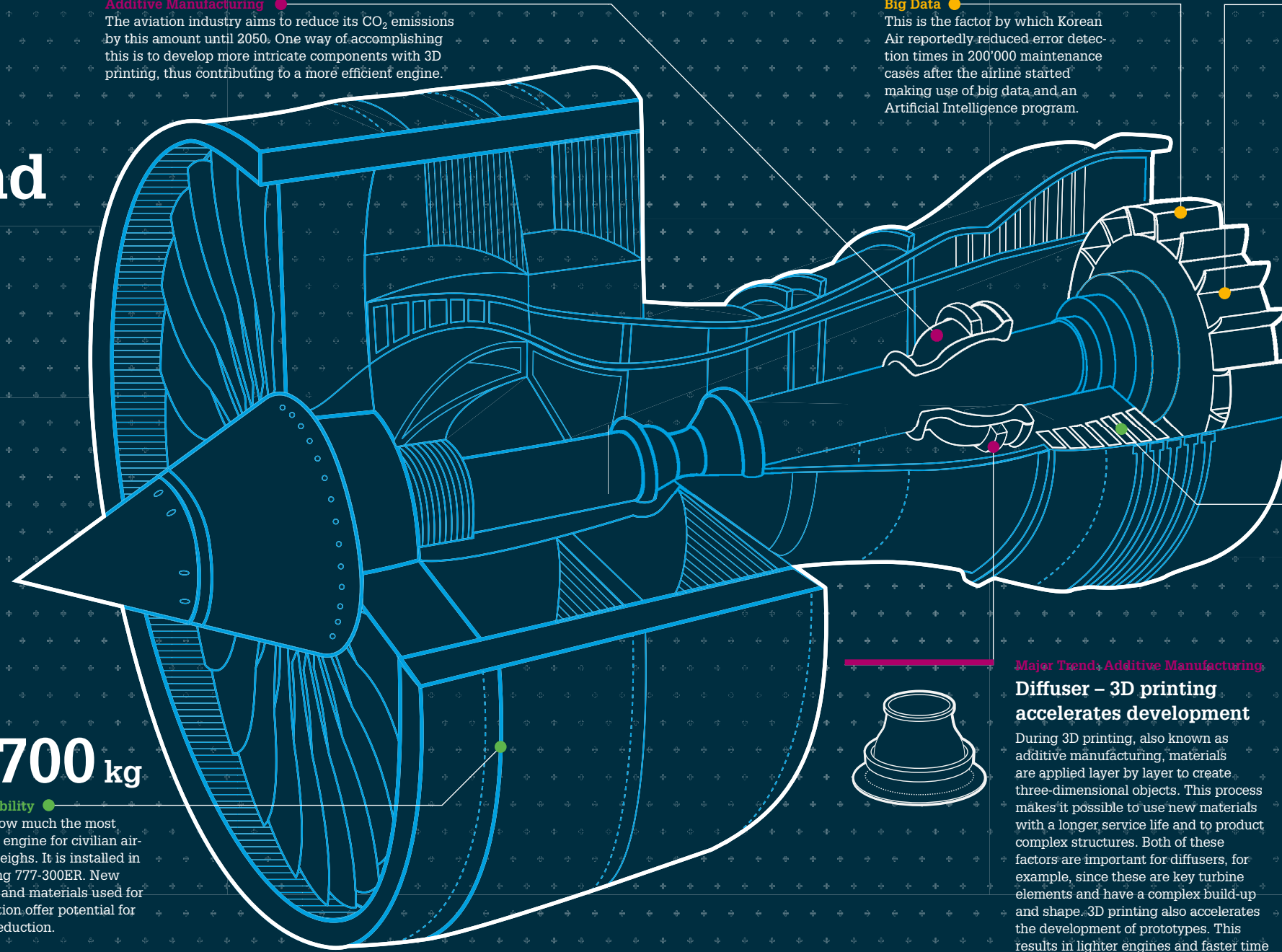
**Additive Manufacturing**  
The aviation industry aims to reduce its CO<sub>2</sub> emissions by this amount until 2050. One way of accomplishing this is to develop more intricate components with 3D printing, thus contributing to a more efficient engine.

**90%**

**Big Data**  
This is the factor by which Korean Air reportedly reduced error detection times in 200'000 maintenance cases after the airline started making use of big data and an Artificial Intelligence program.

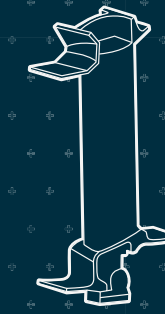
**8'700 kg**

**Sustainability**  
That is how much the most powerful engine for civilian airplanes weighs. It is installed in the Boeing 777-300ER. New methods and materials used for construction offer potential for weight reduction.



**Major Trend: Big Data**  
**Turbine Rear Vane: Repair Prior to Defects**

Sensors close to the turbine rear vane demonstrate these components' actual load in practical application. Large volumes of data are collected and evaluated in the process. This enables manufacturers such as GF Casting Solutions to better predict and lengthen the service lives of the components. Downtimes are reduced because the vanes are replaced before they become defective.



**Major Trend: Sustainability**  
**Titanium Turbine Blades: Lighter and More Robust**

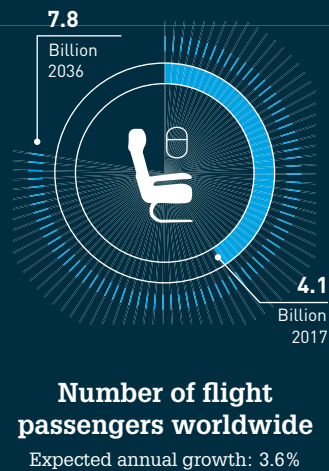
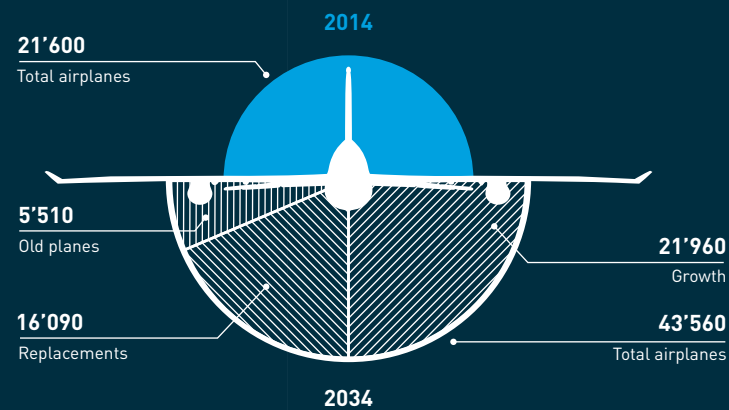
New materials are making planes lighter and more fuel-efficient. Turbine blades made of titanium-aluminide alloys boast low weights and high durability. Processing these blades calls for highly precise milling or grinding devices with high performance capacities. GF Machining Solutions has addressed this need, and is pioneering the development of new machines accordingly. Moreover, manufacturers will also reduce material waste using 3D printing in the future.

**Major Trend: Additive Manufacturing**  
**Diffuser – 3D printing accelerates development**

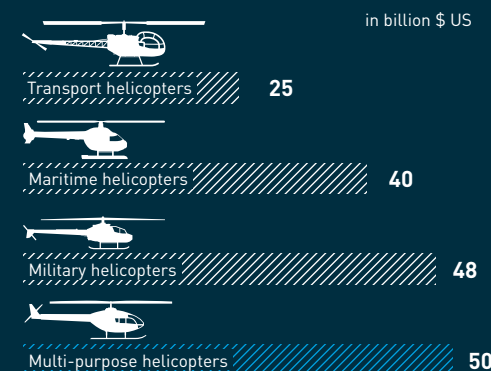
During 3D printing, also known as additive manufacturing, materials are applied layer by layer to create three-dimensional objects. This process makes it possible to use new materials with a longer service life and to produce complex structures. Both of these factors are important for diffusers, for example, since these are key turbine elements and have a complex build-up and shape. 3D printing also accelerates the development of prototypes. This results in lighter engines and faster time to market.

Sources: Flug Revue, Frost & Sullivan, GF Machining Solutions, Global Space Industry Market and Technology Forecast, IATA, IBM, Morgan Stanley

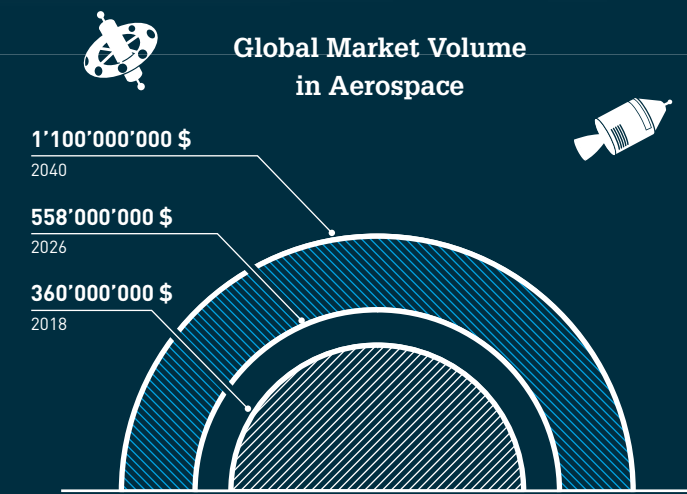
**Passenger airplanes worldwide**



**Global Investments in Helicopters 2018-2026**



**Global Market Volume in Aerospace**



## OUR MARKETS

### DATA CENTER COOLING

# Cooling for a Connected World

**GF Piping Systems** has entered an exploding data center market with its innovations. The division is aiming to be the global provider for data center cooling. But how did this become such an exciting market?

**P**ick any industry and imagine its next breakthrough product – a calendar that calls your dentist, a fridge that plans your dinner, or a TV that records a show it knows you don't want to miss. The engine for these products are data centers. With its offering for cooling data centers, GF Piping Systems is poised to be a driver of future innovations around the world.

#### Unprecedented amounts of data

Hyperscale data centers are giant factories of computer processing power needed to handle the enormous and ever-increasing amounts of data being stored and shared in the cloud. They have at least 5'000 servers and 10'000 square feet each. There are only 430 of them in the world, but their numbers are growing quickly. In the first half of 2018, USD 53 billion in investments poured into hyperscale data centers – and investments continue to climb.

Cooling a data center accounts for 25-30 percent of the mechanical and electrical costs, creating real potential for cooling solutions. All data in computers are broken down in to 1s and 0s – and these binary values are represented by different electrical voltages. Electrical currents pass through resistors to create, change, move and store all data, and in doing so they generate heat. Cooling down one server might not be so tricky, but putting 5'000 into one building creates considerable challenges. It means special products can have an incredible impact – like GF Piping Systems' COOL-FIT products.

#### A dynamic market for cooling

Richard Trevaskis, Head of Region North Europe, is also the Director of Data Center Development at GF Piping Systems. He is establishing GF Piping Systems' strategic position in the cooling market and explains its development as follows: "It began with contractors from the semiconductor business. The quality assurance philosophy that was a requirement for the semiconductor projects fit perfectly to the data center market." Approaching new data center owners is complex and the division has to be mindful of their needs. "A big challenge in this market is that new projects are kept highly secure, and rightfully so, due to the sensitive infrastructure involved. You can't just knock on the door of a new project to pitch a solution. We are building a reputation for innovative cooling solutions and a consistent experience worldwide."

GF Piping Systems has not only created innovative products like COOL-FIT 2.0 and 4.0 for its customers, but is also building services like engineering and off-site fabrication to go with them. While these services are up and running in the U.S. and U.K., there is still work to do to expand around the world. "In the long term, GF Piping Systems will be known for delivering an identical package of products and services for data centers in Asia, Europe or the Americas," says Trevaskis. "That is highly valuable for our customers." ■



#### THE BENEFITS OF COOL-FIT

COOL-FIT 2.0/4.0 provides critical cooling with significant energy savings. Architects benefit from its light weight, which reduces the load buildings need to carry. Construction companies save time and costs thanks to its easy-to-install components. COOL-FIT is made of plastic, which prevents corrosion. And, thanks to innovative pre-insulation, condensation is no factor, keeping points of use safe from water. COOL-FIT has the potential to deliver up to 30 percent in energy savings compared to metal solutions.



#### Richard Trevaskis

- 1999: Starts his career with GF Piping Systems Coventry (U.K.).
- 2008: Takes over as Managing Director of GF Piping Systems U.K.
- 2013: Appointed Head of Region North Europe.
- January 2019: Additional responsibilities as Director of Global Data Center Development. Starts to build a global sales, technical, and engineering support team.

## 0–60 °C

Range in which Cool-Fit 2.0 can help maintain precise temperatures in a data center.

## 14.3 billion

U.S. dollars – Size of data center cooling market by 2021

## 40 %

increase in hyperscale data centers by 2021

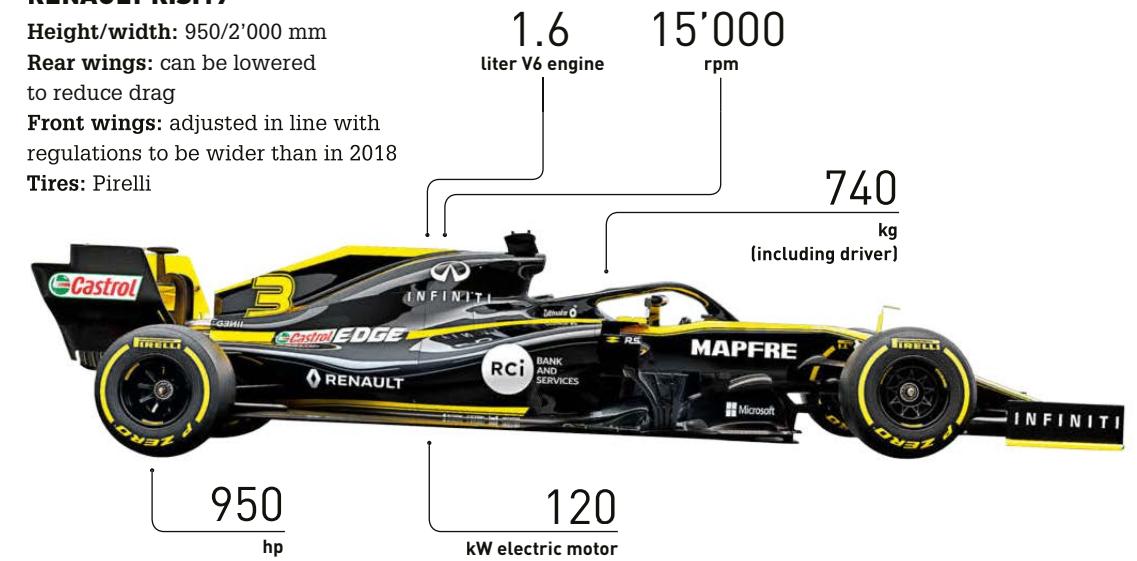
OUR CUSTOMERS  
RENAULT F1 TEAM



Group photo with the latest racecar (from left): Ian Pearce (Head of Production, Renault F1 team), Phil Parkin (Key Account Manager, GF Machining Solutions UK), Luca Mazzocco (Head of Technological Partnerships, Renault F1 team), and Rob White (Operations Director, Renault F1 team). Renault F1 Team wants to establish itself as a contender for the world championship – with the R.S.19 and drivers Nico Hülkenberg and Daniel Ricciardo. GF Machining Solutions is supporting the team with cutting-edge machines and first-class service.

**RENAULT R.S.19**

**Height/width:** 950/2'000 mm  
**Rear wings:** can be lowered to reduce drag  
**Front wings:** adjusted in line with regulations to be wider than in 2018  
**Tires:** Pirelli



# Power and Passion

When it comes to succeeding in Formula 1, speed is not everything; you also need extreme accuracy. That is why Renault F1 Team in Enstone has been relying on GF Machining Solutions for over 20 years.

**B**eige brick houses with gray tiled roofs, a family-run store and a small post office make up nearly all of Enstone, an English village near Oxford that seems, at first glance, like your typical rustic locale in the Midlands. And that is exactly what it would be, were it not for the Formula 1 racing team based at its eastern border. Enstone is home to a mere 1'100 residents, whereas Renault F1 Team UK employs more than 700 people.

In contrast to the rural surroundings, the Technical Centre seems like a different world. It features modern white buildings with large glass façades, clinically sterile rooms and – to top it all off – the R.S.19. This is the black-and-yellow 950 hp racecar that Nico Hülkenberg and Daniel Ricciardo will drive this season, hoping to consolidate the team's reputation as a top contender. In order to bring a competitive car to the grid, every single member of Renault F1 Team has to push their limits race after race. Nothing less is expected of their Technical Partners, including GF Machining Solutions. In fact, Rob White, the Operations Director, considers GF to be one of the most important suppliers. He describes the partnership with GF as a "cooperation based on trust," emphasizing that "not many partners are so deeply involved with our operations."

The fact that GF is a partner, not just a supplier, is a distinction that is also important to Martin Spencer, Managing Director of GF Machining Solutions in Coventry (UK). "The close relationship that we've built up with Renault F1 Team over the past 23 years is based on mutual respect, trust, and integrity," he states. "All of us here at GF Machining Solutions greatly appreciate that."

Within Formula 1, speed and precision are decisive factors on the racetrack, in the pit lane and in manufacturing. "We produce most of the car in-house, using ultra-lightweight materials with a wide range of properties," explains Ian Pearce, Head of Production at Renault F1 Team. "This work would not be possible without the contribution of GF Machining Solutions."

It's a perfect match; the most technologically advanced category in motorsports provides the perfect context for GF Machining Solutions to demonstrate its capabilities. "Our advanced five-axis Milling, wire-cutting and die-sinking solutions and our automation technologies are pushed to their limits and deliver amazing results," says Phil Parkin, GF Machining Solutions Key Account Manager for Renault F1 Team.

The following anecdote illustrates the quick turnaround Renault F1 Team must be able to rely on. During one of the test sessions in spring, the team experienced an issue with their Drag Reduction System (DRS), a device

**The Milling centers** of type Mikron HPM 1350U enable precise machining of sensitive components for the latest racecar. In order to ensure that these Milling centers are also able to reliably work with non-metallic materials, GF has custom-tailored the machines for Renault F1 Team.



**High performance on and alongside the racetrack:** In Formula 1, the events behind the scenes need to be just as quick as they are on the race-course. The machines used to manufacture many parts of the R.S.19 also need to fulfill these requirements.

› designed to facilitate overtaking by reducing the negative aerodynamic repercussion when approaching a slower car. The DRS flap tore off the R.S.19 on the main straight on a Wednesday morning and, by Wednesday evening, engineers in Enstone had already produced a new design and fed production data into the relevant machine. On that same night, the new DRS component was completed in Enstone and flown from England to Barcelona on Thursday morning. The tests were a success. On Friday, Renault F1 Team achieved the fastest lap of the February pre-season test at the Circuit de Catalunya.

Renault F1 Team currently uses 18 GF machines. "They constitute the core of our metal production facilities," says Head of Production Ian Pearce. But GF does not stop at supplying machines; they also strive to design customized solutions that keep in line with the requirements of their customers. The latest two five-axis Mikron Milling centers delivered at Enstone are a good example. The team needed this solution to mill non-metallic materials such as epoxy resin, carbon fiber reinforced plastic and rigid foam.

In order to collect the dust generated during the Milling process, GF experts fitted the two Mikron HPM 1350U with highly efficient extraction systems. In order to mill larger components, Renault F1 Team also required these machines to be bigger than usual and GF was also able to fulfill this requirement, which impressed production managers.

To ensure that components are efficiently manufactured with the highest precision, machines are replaced every three to four years. The goal is clear: continuing the momentum of Renault F1 Team's fourth place finish in 2018 to establish themselves as a championship contender for years to come. ■



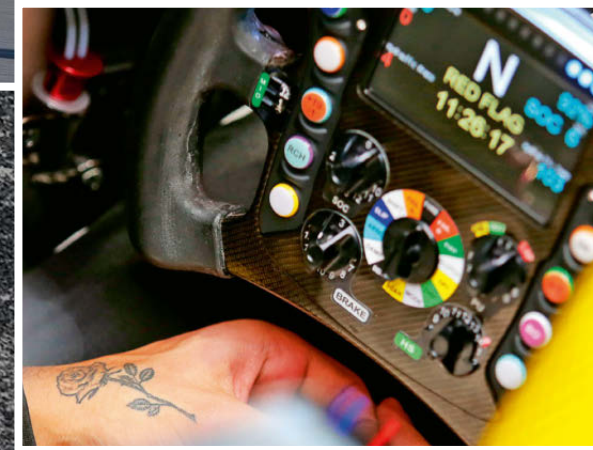
**FACTS & FIGURES  
RENAULT F1 TEAM**

**Greatest successes:**  
2005 & 2006 World Constructors' Champion and World Drivers' Champion (drivers: Fernando Alonso, Giancarlo Fisichella)

**Driver team:**  
Nico Hülkenberg (Germany) & Daniel Ricciardo (Australia)

**Employees:**  
Over 700 in the U.K.

**2019 season target:**  
Continue the team's positive momentum and solidify its ambitions as a top contender



**"The Same Level of Commitment"**

Luca Mazzocco, Head of Technological Partnerships at Renault F1 Team in Enstone (UK) is responsible for the relationship with Technical Partners and suppliers. In the interview, he talks about the team's longstanding cooperation with GF Machining Solutions.

**Mr. Mazzocco, Formula 1 manufacturing demands absolute precision under a great deal of time pressure. What do you expect from your suppliers?**

A Formula 1 car is a constantly evolving prototype. This season, we designed and built the most complex car ever – within the shortest period of time. To stay innovative, our Technical Partners must be able to embrace – and I'd say also enjoy – our challenges in design, production and logistics. We need to be able to rely on them 100 percent. We carefully select our suppliers. They need to bring the same level of commitment we demand of ourselves.

**What makes your cooperation with GF Machining Solutions special?**

Our partnership is based on trust and technological excellence. In fact, GF is our longest-standing technical partner. We've been working with GF Machining Solutions in various ways since 1997, when we purchased the first EDM machines from them. Our partnership has constantly expanded ever since.

**What does this cooperation entail in concrete terms?**

We currently have 18 EDM and Milling machines from GF. We replace them regularly to make sure we're working with the latest technology. But our cooperation goes well beyond a typical customer/supplier relationship. Our GF contacts regularly visit our plant in Enstone – they're available day and night if we need them. They are an essential part of our extended team. In return, we offer them the opportunity to use our Technical Centre as a living showcase of their capabilities and of the excellence they bring to the team.

+

More pictures at  
[globe.georgfischer.com](http://globe.georgfischer.com)

OUR OBJECTIVES  
INTERVIEW: CARLOS VASTO



**A man of many talents:** Cosmopolitan Carlos Vasto has gained a wealth of management expertise at GF. He has worked in South and North America, as well as in Europe.

## “Let’s Shape the Future Together”

**GF Casting Solutions is transforming:** From an automotive supplier with a focus on iron casting to a diversified solutions provider. This path has been a challenge for management as well as for employees from the start. Division Head Carlos Vasto talks about changes, opportunities, and his vision for the future.

**GF: Mr. Vasto, GF Casting Solutions has greatly changed in the past few years. What, in your opinion, were the biggest milestones reached?**  
**Vasto:** GF Casting Solutions has consistently acted in line with the Strategy 2020. This has included constructing and commissioning new plants in the U.S., purchasing light metal plants in Romania, the acquisition of Precicast in the precision casting sector, and implementing additive manufacturing. In addition to becoming far more international, we’ve also tapped new markets, spanning even more applications in the fields of industry, aviation and aerospace, and energy. Alongside our specialty in the automotive sector, we have new opportunities to diversify our positioning – around the world. But we also bid some traditions farewell when we sold the two large German iron foundries in Singen and Mettmann. That wasn’t an

easy decision, but it was an important step towards realigning the Division.

**How have employees responded to these changes?**

I think that many employees have been feeling uncertain in light of all the changes that our Division has experienced. Moreover, the current market situation, particularly “Dieselgate,” the trade war between the U.S. and China, and the Brexit are giving rise to additional uncertainties. My colleagues from the Division Management and I find it important to communicate even more with our employees worldwide, given the nature of these times, and to assuage their fears to the greatest possible extent. That’s why we’ll be visiting as many locations as possible this year. We can only successfully implement changes when we fully support our colleagues and continue to strengthen our collaboration. We

can’t forget that we’ve already achieved several important goals and that we have outstanding employees who give their all for us to become even better.

**At present, what are the greatest challenges your Division is facing?**

After implementing the numerous organizational and personnel changes, we need to create stable processes again. Our clear objective is to set global standards within the next two years, to achieve ambitious goals in terms of production, and to make use of internal as well as external best practices. Changes require time and openness. In Europe, our focus clearly lies on strengthening our sense of team spirit, improving performance in production, and establishing stable processes. In the U.S., we’re focusing on ensuring the successful commissioning of our plant in Mills River. In China, we want to win market shares in iron casting and aluminum high-pressure die-casting as well as continue to expand in the areas of die-casting tools and refined solutions.

**What’s happening in terms of innovations, and how important are these to your Division?**

Together with the Research and Development team in Schaffhausen, the Center of Competence for Structural Parts in Altenmarkt (Austria), the development experts in Suzhou (China), and the precision casting specialists in Novazzano (Switzerland), it’s our clear objective to become even stronger in the area of innovations. We’ve created a new innovation process that will help us to become faster and gain an even better understanding of our customers’ needs. A shift in thinking is currently taking place, thanks to Design Thinking and our interdisciplinary teams that are working on this. I’m excited about that.

**Additive manufacturing is a massive trend. Where do you see the potential here for GF Casting Solutions?**

We’re applying this technology in three areas. The first of these is our AMotion Center in Stabio (Switzerland), where we’re developing the 3D-printed solutions of the future and hope to implement series applications. Together with GF Machining Solutions experts in 3D printing and all downstream processes, GF is developing an offering for our customers that’s the only one of its kind in the world. Moreover, manufacturing prototypes offers significant potential. The second area of application is in die-casting processes,

**“Our unique team sets us apart from the competition.”**



**CARLOS VASTO**

**Born:**  
1963 in São Paulo (Brazil)

**Education:**  
Material science engineering, economics (B.A.)

**Career:**

- 1987–2005 Various positions at GF Automotive in Germany and England
- 2005–2010 Executive Vice President of Acotecnica SA (Brazil)
- 2011–2015 Founded and led the consulting start-up Intra do Brasil
- 2015–2018 Managing Director GF Linamar (USA), built die-casting plant
- 2018 Head of Iron Casting & Precision Casting Europe Business Unit
- As of September 2018 Head of GF Casting Solutions

**Personal details:**  
Married, two children

where additive manufacturing represents a clear process advantage. We’re already printing cooling inserts for our die-casting tools. This increases the tools’ service life and helps improve the processes. The third area of application involves the 3D sand core printer at our iron casting plant in Leipzig (Germany). It allows us to manufacture prototypes within just a few weeks, which gives us a real competitive advantage.

**Will these new manufacturing technologies soon replace the traditional casting processes?**

New technologies are helping us to develop even better solutions for our customers, and thereby secure our future in the areas of iron casting, die-casting, and precision casting. At the same time, we are able to apply our collective know-how, from the research and development stages through to ready-to-install solutions. In the future, we’ll still manufacture some components using casting processes, and use printing for others – we now have the development and production expertise for both of these in-house. We offer the right process and solution for every application.

**It sounds like there are many positive projects for the future underway at GF Casting Solutions. You’ve held your position for under a year – what’s your personal vision?**

In the future, I’d like for us to grow even more closely together around the world and to take a more global approach to the way that we think. We need to carefully observe the market developments and our competition. I think that what sets GF Casting Solutions apart from our competition is our unique team. We always stick together, in both good times and bad, and we help one another. Cultural changes require an open attitude and approach, and I hope that we’ll be able to succeed in convincing employees that we can address and solve problems together. Let’s shape the future together. ■

# Entering the Future – As a Team

Alongside high-pressure die-casting and cast-iron components, which are primarily applied in the automotive industry, GF Casting Solutions now offers two additional manufacturing technologies. As such, the Division now has solutions for six markets in its portfolio. This development was made possible by employees' openness to new things. Six of them share their vision of the future.



**“We need to be able to attract clever minds to work with us.”**

**Zackary Welch**  
Environmental, Health and Safety Manager  
GF Linamar, Mills River (USA)

My motivation comes from the fact that I am part of a joint-venture greenfield location that has the potential to be the #1 supplier of light-castings in the NAFTA market. This is an opportunity that many professionals wait for their entire life. We have the expertise of GF in melting and die-casting, as well as the expertise of Linamar in heat treatment and machining. Through teamwork and collaboration, this knowledge is being transferred to our local work force. One of the greatest challenges for GF Linamar is to develop a culture that leads people here. Employees entering the workforce are now looking for that “sexy”, modern facility where they can grow, and help others grow as well. We have to be able to connect with these bright minds.



**“An innovative spirit, adaptability, and hard work will ensure success.”**

**Lukas Blumenauer**  
Head Additive Manufacturing,  
GF Casting Solutions, Leipzig (Germany)

The clear strategy and accompanying investments in future technologies – such as the ones made at the site here in Leipzig in an automatic casting machine, cleaning robots, and additive production methods – reduce costs, reduce workloads for employees, and open up new markets. Striking the right balance of innovative spirit, adaptability, and hard work will keep our site successful over the long term. Consistently promoting employees, offering further education opportunities, and hosting team events are good ways to reward the team for 300, 600 or 1'000 days without workplace accidents. Rolling out the “Zero Risk” initiative allows us to focus even more strongly on safety at work – for ourselves and for our colleagues. All of that gives me the feeling that GF Casting Solutions is always at the forefront.



**“We want to grow and improve in order to remain competitive.”**

**Federico Grimaldi**  
Team Leader Structural Parts,  
GF Precicast, Novazzano (Switzerland)

New products are becoming increasingly complex. That's why production at GF Precicast in Novazzano is also constantly further developing. We're focusing on training programs for our employees, modernizing our machine fleet, and optimizing our work processes. This has proved to be decisive for ensuring production capacity during the development, run-up, and production phases for complex structural components. We manufacture these for key customers such as Rolls Royce and Safran. We'll be facing just as many challenges, if not more, in the future. As part of GF, we want to continue to grow and improve in order to remain competitive.



**“We can show our customers innovative solutions at an early stage.”**

**Alexander Lindner**  
Technical Assistant Operating Technology,  
GF Casting Solutions, Altenmarkt (Austria)

You can see our slogan “Altenmarkt – one team, one future” on display from the moment you enter our production hall. We live by that motto here. After all, teamwork will lay the groundwork for lasting success in a future landscape marked by increasingly volatile markets, constantly changing customer requirements, and shorter development times. Since we are involved from the start of development more and more frequently, we can demonstrate innovative component solutions for our customers at an early stage. Here at GF Casting Solutions, we're well-positioned – from a technical standpoint, what with new additive production techniques, as well as from an organizational standpoint, what with the recently introduced Design Thinking method for the development process. What's important is that we act as a team on a global scale.



**“Personal motivation and teamwork are the keys to success.”**

**Laura Raducanu**  
Senior Logistics Manager,  
GF Casting Solutions, Pitesti (Romania)

New challenges, new opportunities, new ideas: I'm a logistics manager, and no one day for me is like the next. I'm really grateful for that. GF Casting Solutions S.R.L. in Romania highly values employees' well-being. It's a give and take: We've recently got a new building at our site, new machines, increasing automation, and training opportunities, plus benefits such as medical screening. That definitely motivates all the employees here in Pitesti to get involved and give something back. Personal motivation and teamwork are the keys to success.



**“New challenges also bring about new opportunities.”**

**Yuan Hongwei**  
Head Technical Project Management,  
GF Casting Solutions, Suzhou (China)

Good organization and a strong sense of responsibility for one's own work are the things that impress me the most at GF Casting Solutions. The collaboration with our various sites – from other ones here in China to ones around the world – is also remarkable. Our company culture motivates me to always look for even better solutions. We did that successfully in the past in Suzhou, where we addressed production, sales, and new projects, such as components for electric vehicles. The future will be just as exciting, if not more so. We want to promote innovative projects while reducing costs. I'm optimistic – after all, new challenges also bring about new opportunities.



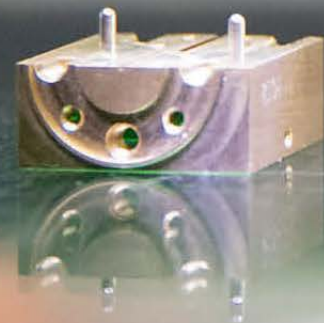
OUR LOCATIONS  
CHENGDU (CHINA)



As the capital of China's Sichuan province, Chengdu has always been a political hub. Over the last decade, the city has also become an economic centre for western China. Apart from the electronic industry, machine building and aircraft construction are the main drivers of economic growth. More than 14 million people live in the Chengdu metropolitan area.



The house is open:  
With its centre of competence,  
GF Machining Solutions  
connects with its customers.



# Go Southwest!

GF Machining Solutions is taking advantage of China's plan to revamp industries in its southwest region. The division recently opened a Center of Competence in Chengdu, enabling the company to better serve a fast-growing customer base.

In history, Chengdu was such a cozy place to live that according to a Chinese idiom "the youth should not come because they will lose ambitions". But the saying is no longer true today, as the southwest area has become one of China's key industrial bases. Agie, Charmilles and Mikron had set up offices in the region since the 1990s; as the companies merged, their presence also evolved. In September 2018, GF Machining Solutions set up one of China's four Centers of Competence (CoC) in Chengdu to provide better demonstrations and trainings on Milling, EDM, and advanced manufacturing solutions.

Staffed with 22 employees in Sales Application and Customer Services, the Chengdu CoC serves almost 700 customers in the southwest region, including big names like Molex, Flextronix and Bosch. It features an exhibition hall of 800 square meters, displaying eight machines such as the go-Mill 350, the Mikron MILL P 900, and the Mikron HSM 500.

"The CoC is a fantastic facility to display our products and provide training for customers," says Chen Yingjun, Southwest Regional Sales Director. "In the old days we had a much smaller space, and our customers often had to fly to Shanghai or Beijing

to experience our products live or receive trainings."

### School-enterprise cooperation

In addition to its business functionalities, the Chengdu CoC is also an education and research facility. Sitting on the campus of Chengdu Aeronautic Polytechnic, the CoC collaborates with the school on training its students and developing new manufacturing techniques. The students that are trained on the machines are very likely going to work for the division's customers after graduation, which will create closer bonds between GF Machining Solutions and its clients, according to Johnson Chen, Head of Market Region China. Partnering with a public educational institution also brings good PR — since its grand opening, the CoC has received more than 1'000 visitors from both private and public sectors, Johnson Chen says.

What's more, the partnership could help GF Machining Solutions tap into China's ambitious plan to develop its own passenger airplanes, says Johnson Chen. The C919 and ARJ121, both jetliners made by the Commercial Aircraft Corporation of China, have already received more than 800 orders globally, according to media accounts. To be able to challenge the dominance of Boeing and Air-



Wang Yun

Yun joined GF Machining Solutions in 2007 as a Service Engineer in the EDM team. His main responsibilities are installation and troubleshooting for customers. "The key to this job is preciseness, responsiveness and attitude." Yun was once a GF customer himself, supervising a team of equipment technicians at Johnson Electronic. At that time, he was already impressed with the high quality that the GF Machining Solutions machines provided. In his spare time, Yun loves playing table tennis and going mountain climbing with his family.

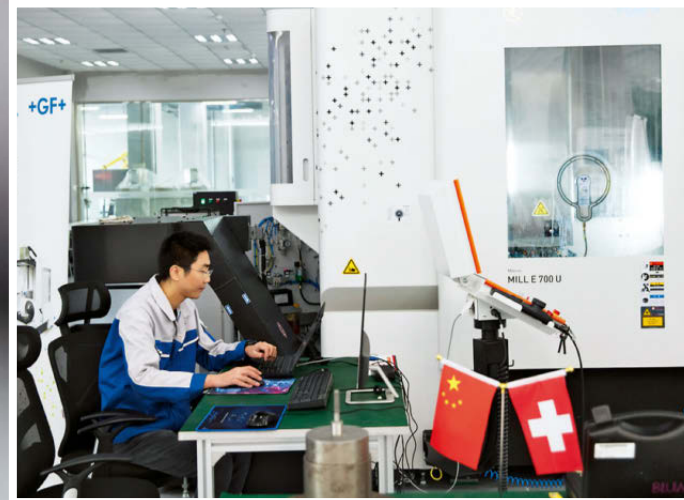


Zhang Xiaohua

Xiaohua, who also goes by her English name Sonia, works as Machining Operation Support Engineer. "My essential role boils down to helping our customers use our machines better, and I really enjoy my work," Xiaohua says. Her friendly attitude might be the reason why she has become friends with some of them. In her private life, Xiaohua is a happy mother who loves traveling and playing badminton.

**Innovators across borders:**

Even in faraway China, GF's Swiss origin is always present. Even if there is a great distance between the markets, the goal is the same: Creating innovative technologies.



**Long Yong**

Yong is a Regional Sales Manager with more than twenty years of sales experience with Mikron machines. Through his long career, he formed a deep understanding of local markets and customer demand. "I'm very proud to provide customers with our high-quality GF machines." Outside of work, Yong is an enthusiastic badminton player who has won a number of championships in amateur contests.



**He Zhengbin**

Zhengbin is an Application Engineer who specializes in Milling machines. "Our customers have very high expectations," he says. "It's important to provide them with satisfying solutions and services." He recently completed a project in Guizhou province and hopes the customer will purchase more GF solutions in the future. After work, Zhengbin enjoys riding his bike and going mountain climbing as a means of relaxation.

bus in the future, China is on track to upgrade its local supply chains and enhance its manufacturing capabilities. The southwest region has an important role to play: In the next few years, its annual output in the aerospace sector is expected to exceed 83 billion yuan (12.4 billion Swiss francs). By teaming up with a well-known university in the industry, GF Machining Solutions is well positioned to further participate in this development, according to Johnson Chen.

**Ride on the tide**

Looking forward, China is set to revamp industries in the southwest region. Infrastructure investment is set to rise, and old-timers such as steelmaking and mining will be replaced by modern logistics networks and high-tech manufacturing. For GF Machining Solutions, this transition means tremendous growth opportunities. "The Chengdu CoC allows us to provide better services to our customers and help them elevate capabilities and efficiency," Chen Yingjun says. "This will be a key driver for sales growth in the future." ■

**AT A GLANCE**

**Company:**  
GF Machining Solutions  
Center of Competence (CoC)  
in Chengdu (China)

**In Chengdu since:**  
1990 (first offices)  
September 2018 (CoC)

**Employees:**  
22

**Customers:**  
about 700, including Molex,  
Flextronix and Bosch



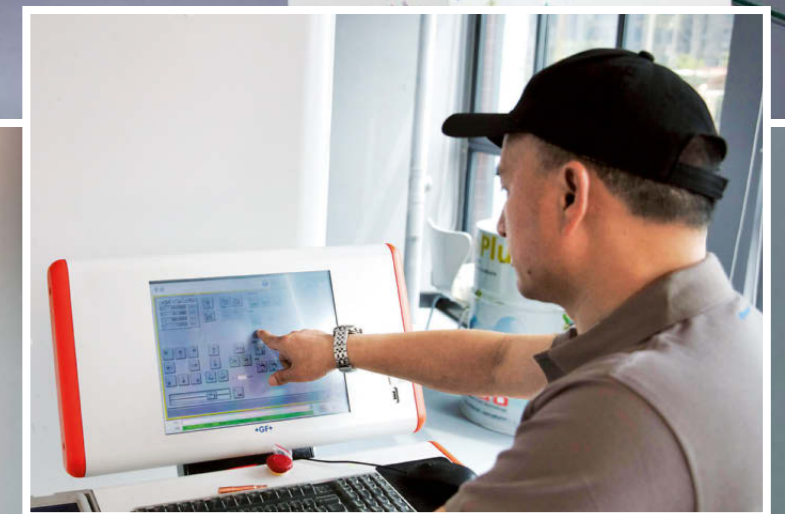
**Extent:**  
Eight Machines in an exhibition hall of 800 square meters

**Competencies:**  
Demonstration, training and research on Milling, EDM & other manufacturing machines

**Market segments:**  
Manufacturing solutions, especially for Milling



More pictures at  
[globe.georgfischer.com](http://globe.georgfischer.com)



**Playground for machine lovers:** In its Chengdu showroom, GF Machining Solutions not only puts eight state-of-the-art machines on display but also offers extensive training opportunities. In doing so, the company helps its customers in improving their capabilities and efficiency.

**HEART AND SOUL**  
FOR THE LOVE OF STRAY DOGS

Hande Günbattı does all she can in order to help animals in need. She organizes donations and finds new owners for stray dogs.

**JOIN IN  
AND WIN!**

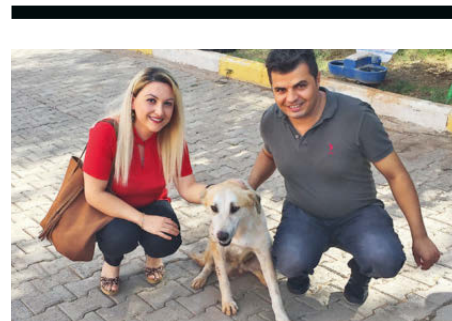
Are you committed to social causes? Does a colleague of yours do a lot to help those in need? We would like to hear your story: [globe@georgfischer.com](mailto:globe@georgfischer.com)  
All entries will be included in our competition on page 40.

**Giving Stray Dogs  
a Chance**

In her professional life, Hande Günbattı helps other people, and in her free time, she's dedicated to supporting animal welfare. Even as a little girl, she not only fed her own cat, but also all of the local animals. "I've loved animals for as long as I can remember," the 28-year-old recalls. She was all the more outraged, then, by the state of stray animals in Şanlıurfa [Turkey], when she arrived at the East Anatolian city to start her new position at GF Piping Systems in 2018. "There was no shelter at all, and the animals looked neglected," says the Human Resources expert.

When she saw a puppy get run over by a car right in front of her, it broke her heart. She decided to do something. "Taking care of helpless creatures gives me a tremendous amount of energy."

After that incident, Hande started working for the animal welfare associations HayKonfed and Kihayko Şanlıurfa: "I want to raise awareness of animals' suffering." She finds homes for stray dogs through social media. Her greatest success: With the support of the city, Hande and other animal welfare activists from Kihayko built an animal shelter around three years ago. Supermarket chains and catering companies donate animal food, while veterinarians provide free treatments. In honor of World Animal Day on October 4, her colleagues from GF Piping Systems visited the animal shelter to drop off food donations in person. "It would be great if we could do this every year," Hande says. ■



Hande Günbattı is a 28-year-old Human Resources expert. She started working for the HR department at GF Piping Systems in the East Anatolian city of Şanlıurfa (Turkey) in January 2018.

More pictures at [globe.georgfischer.com](http://globe.georgfischer.com)

**TAKE AWAY**  
EVERYDAY SUSTAINABILITY

**Small Steps,  
Big Impact**

**Sustainability** is an important component of the GF business model. This doesn't stop at the workplace, either: Everyone can make a contribution, even by taking small steps that are easy to incorporate into your everyday. Did you know, for example, that ...

**... THERE ARE SUSTAINABLE SEARCH ENGINES?**

Alternatives to the market leader Google not only offer equally helpful search results, but also do good. The search engine Ecosia ([ecosia.org](http://ecosia.org)), for example, plants trees using the proceeds from ads – one every 0.8 seconds, according to its figures.

**... THAT YOU CAN CREATIVELY REPURPOSE PLASTIC BOTTLES?**

As compared to old lightbulbs, LED lightbulbs hardly give off any heat. As a result, plastic bottles can now be safely repurposed to serve as stylish lampshades. The creative options here are boundless.

**... YOU CAN CUT YOUR COMPUTER'S POWER CONSUMPTION?**

Working at 50 to 70 percent screen brightness reduces your computer's power consumption and protects your eyes. Also, many apps have a "dark mode." The benefit: Black pixels use less electricity than bright ones do.

**... IT'S EASY TO AVOID PRODUCING FOOD WASTE?**

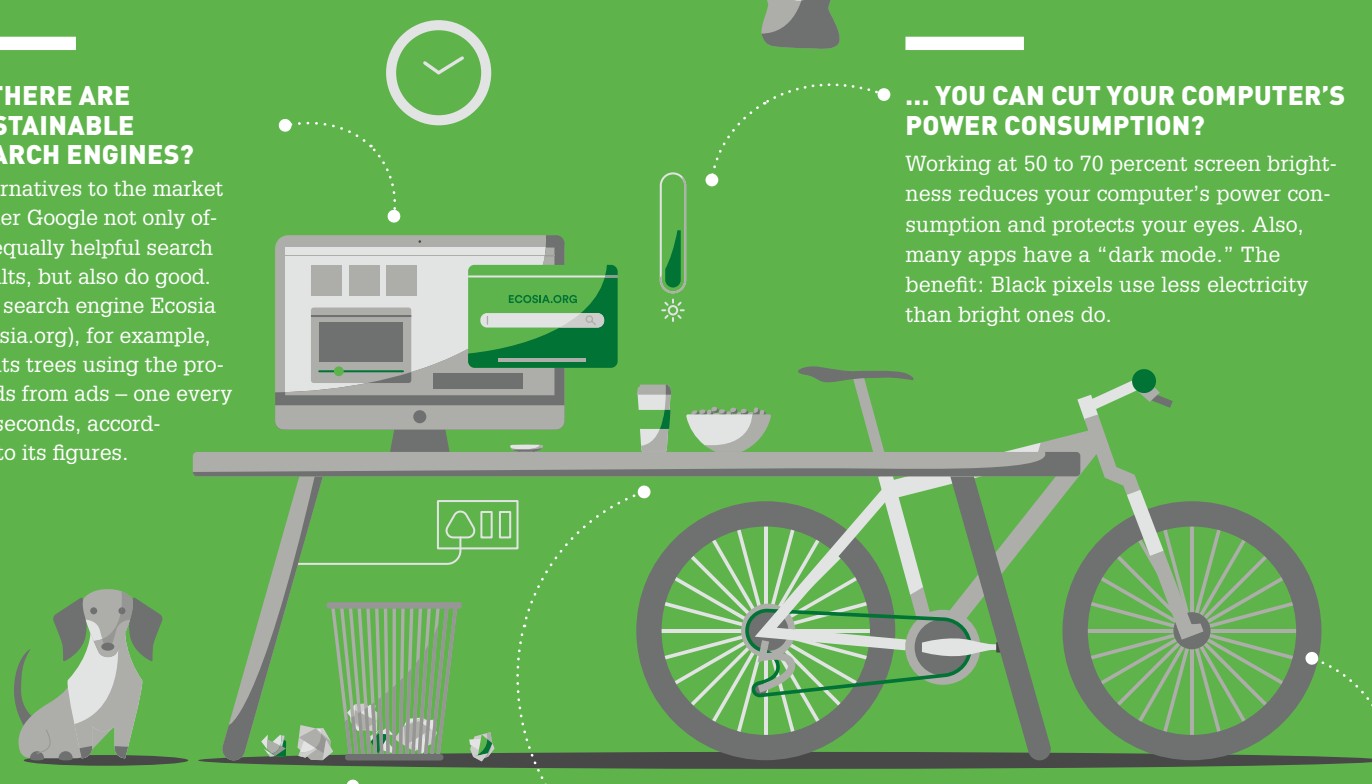
Food waste reduction apps such as Too good to go and Flashfood connect supermarkets, restaurants, and customers to keep food out of trash cans. However, you don't need a smartphone to cut waste: You could also save leftovers from dinner to enjoy as a snack the next day. Also, make sure that the office fruit basket doesn't contain any ripe fruit before everyone leaves for the weekend.

**... THERE ARE RETURN-REUSE SYSTEMS FOR COFFEE CUPS?**

Many cities already have these set up. If yours doesn't, carry around a reusable cup to reduce paper waste and keep your coffee warm for much longer. If you want to cut down on your coffee consumption, you can take sustainability as a good source of motivation: Believe it or not, it takes 140 liters of water to grow the coffee beans used for a single cup.

**... YOU CAN TAKE A SUSTAINABLE ROUTE TO WORK?**

Hopping on a bike pays off in two different ways: If you bike to GF for half the working days out of the year, you'll save around 470 kilograms of CO<sub>2</sub> (for a 20 km commute). You'll also burn 500 calories each day that you bike.



MY HOME  
SINGAPORE



**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](mailto:globe@georgfischer.com)  
All entries will be included in our competition on page 40.

The Marina Bay Sands may well be Singapore's most famous landmark. The 191-meter-tall hotel towers are connected by a massive rooftop garden and pool.



## Palm Trees and Circuit Boards

**D**id you know that nearly 20 percent of Singapore's land has been artificially created? Here in my new hometown, nature and human progress are intertwined. These two forces shape the city: On the one hand, it's an industrial and commercial metropolis. But on the other hand, it's full of idyllic bays and gardens that make it easy for me to forget that I'm living in a city of millions.

I think it's great how green Singapore is. The whole city is clean, and sustainability is taken seriously here. People who want to drive cars need to pay a lot of money to get a license. And driving isn't necessary, since it's very easy to get everywhere in the city with public transport.

I moved to Singapore together with my husband a year ago in order to pursue a new

professional challenge. Moving here naturally took some adjusting, and sometimes I miss the beautiful Swiss mountains. But we've felt very comfortable here from the very outset.

The biggest change so far involves my job: In Schaffhausen, our marketing team was bigger, while here I do everything together with one other colleague. The great thing about that is I'm involved in all kinds of different marketing activities, and my tasks are quite varied. I've learned a lot about local customs and celebrations from my colleagues. There are a lot of those, since Singapore is a cultural melting pot. Superstition is important here, and many traditions are based on it. My colleagues are helping me get to know and immerse myself in the culture here more and more. ■



**Lorena Hofmann** came to GF as an intern in 2014. After completing her studies, she began working in the Global Communications section at GF Piping Systems in Schaffhausen, Switzerland, in 2015. Last year she became a Senior Marketing Executive at the Sales Company in Singapore.

**MORNING  
THROUGH  
THE TREETOPS**



A single day in Singapore definitely isn't enough. But you can still catch some of the highlights in 24 hours. The perfect start to the day is taking a walk over the Henderson Waves Bridge, which is part of the Southern Ridges hiking trail. The gorgeous path ascends to heights of up to 36 meters and over the treetops.

This route also goes directly to Vivo City, the largest shopping mall in Singapore. From there, you can directly reach the Sentosa theme park island.

## One Day in Singapore

**LUNCHTIME  
STROLLING**

Take the subway to the Little India neighborhood – from there, it's easy to reach Arab Street and Haji Lane, which are great places to walk around. Those boulevards really let you see how multicultural Singapore is. Strolling past the colorful shops can easily fill up an entire day. From there, you can easily get to Merlion Park to take the obligatory photo with the Merlion Statue and capture the Marina Bay Sands in the background.



To see more of Singapore, go to [globe.georgfischer.com](http://globe.georgfischer.com)

**EVENING  
LEGENDS  
IN A NEW LIGHT**



When it comes to activities for the evening, I recommend taking a walk on the water along the Marina Bay Sands, the legendary three-towered hotel featuring a one-of-a-kind rooftop garden with a pool. It's also worth it to admire this landmark from the inside. But make sure to be outside at 7:45 p.m. for the light show in the Gardens by the Bay! To top off the day, you should eat at one of the many restaurants in the Telok Ayer or Tanjong Pagar neighborhoods, where you can also gaze at gorgeous murals.

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The next issue will come out in September 2019; the editorial deadline is the end of June 2019.

## COMPETITION

# Take Your Chance!

Enter our competition for the chance to win an iPad Wi-Fi, Bose wireless headphones, or a JBL Bluetooth speaker. A prize draw will be held among all employees who send in entries to the sections **Hello!**, **3 × 3**, **Heart and Soul**, and **My home**.

Send an e-mail to [globe@georgfischer.com](mailto:globe@georgfischer.com) with the appropriate subject line. We look forward to your entries. The winners will be announced in the next issue of Globe.

### Here are the winners of the last competition:

**First prize:** Marius Trasca (GF Casting Solutions in Romania)  
**Second prize:** Antoine Schellens (GF Piping Systems in Belgium)  
**Third prize:** Anne Fimpel (GF Corporation in Switzerland)

Further entries which could not be included in the printed edition of the magazine can be viewed online at: [globe.georgfischer.com](http://globe.georgfischer.com)

**Entries for the next Globe issue have to be submitted by the end of June 2019.**



# 1.

### iPad Wi-Fi

32 GB  
8-megapixel camera,  
9.7" multi-touch display



# 2.

### Bose SoundSport

Wireless in-ear headphones  
Six-hour battery life



# 3.

### JBL Go2

Bluetooth loudspeaker  
Waterproof

### Conditions of entry

This competition is organized by GF. All employees of GF are entitled to take part in the competition. The winner will be selected by means of a draw held among all submissions that have been entered by the stated competition deadline. Cash payment, payment in kind, and an exchange of prizes are excluded. Participants in the competition agree to their name being published if they win. Any recourse to legal action is excluded.

## More on Globe Online!

You can conveniently enjoy reading the magazine for GF employees on your smartphone or tablet, too. Click on in to get started!



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