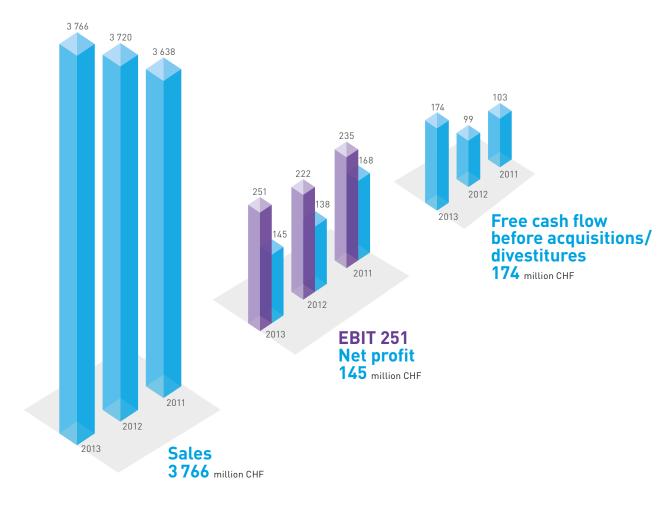
## +GF+

## **Innovations – inspired by our customers**

Georg Fischer Annual Report 2013

Short version

## **Key Figures 2013**



#### Sales 2013 by region (in %) (100% = CHF 3.77 billion)



Gross value added 2013 by region (in %) (100% = CHF 1.29 billion)



Employees 2013 by region (in %) (100% = 14 066)

23%	Germany
18%	Switzerland
14%	Austria
6%	Rest of Europe
25%	Asia
<b>9</b> %	Americas
5%	Rest of world

nillion CHF	2013	2012	2011
Sales	3 766	3 720	3 638
EBIT	251	222	235
Return on sales (EBIT margin) %	6.7	6.0	6.5
Return on invested capital (ROIC) %	16.7	15.7	13.3
Free cash flow before acquisitions/divestitures	174	99	103
Dividend (proposed) per registered share in CHF	16	15	15
Employees at year-end	14 066	13 412	13 606

The figures 2011 have not been adjusted according to Swiss GAAP FER.

## Acting on our customers' needs

At GF innovation processes are based on a close collaboration with customers in order to address their specific needs. GF's quest for customer-oriented solutions is reflected in its global R&D centers, which contribute their expert knowledge to the development of well-adapted solutions - to remain our customers' first choice.

> 600 specialized engineers for innovative solutions

CHF invested in research &

development



new patents registered in ÷

20

**R&D** centers worldwide

÷

÷

## All about GF

**Our Profile** // GF comprises three divisions GF Piping Systems, GF Automotive, and GF Machining Solutions. Founded in 1802, the Corporation is headquartered in Switzerland and is present in 32 countries, with 124 companies, 48 of them production facilities. Its approximately 14 000 employees generated sales of CHF 3.77 billion in 2013. GF is the preferred partner of its customers for the safe transport of liquids and gases, lightweight casting components in vehicles, and high-precision manufacturing technologies.

#### **GF Piping Systems**

GF Piping Systems is a leading supplier of piping systems made of plastics and metal. The division focuses on system solutions and high-quality components for the safe transport of water and gas in industry, utility, and building technology. Its product line includes fittings, valves, pipes, automation and jointing technology and covers all water cycle applications.

GF Piping Systems supports its customers in over 100 countries through its own sales companies and representatives. The division is present in Europe, Asia and the Americas with more than 30 manufacturing sites and research and development centers, which also support energy-saving use of raw materials and resources.

#### **GF** Automotive

GF Automotive is a technologically pioneering development partner and manufacturer of lightweight cast components and systems made of ductile iron, aluminum and magnesium for the global automotive industry as well as a variety of industrial applications. The highly complex lightweight components contribute to making modern vehicles lighter and reducing the CO<sub>2</sub> emissions.

GF Automotive manufactures some 600 000 tons of lightweight components at 9 production plants in Germany, Austria, and China. In those countries as well as in Switzerland, Korea and Japan it operates sales offices. The lightweight research and development competency is in Schaffhausen (Switzerland) and Suzhou (China).

#### **GF Machining Solutions**

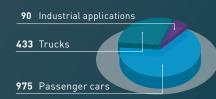
GF Machining Solutions' electrical discharge, high-speed milling and laser texturing machines, along with automation solutions, make it the world's leading provider to the tool and mold making industry and to manufacturers of precision components. Most important customer segments are information and communication technology, aerospace, and the automotive industry.

The division has its own sales companies in more than 50 countries and production plants in Switzerland, Sweden, and China. GF Machining Solutions operates research and development centers in Meyrin, Losone, and Nidau (Switzerland), Vällingby (Sweden), Beijing, and Changzhou (China).





#### Sales: CHF 1 498 million



#### Sales: CHF 867 million



	GF Piping Systems		GF Automotive		GF Machining Solutions		
million CHF	2013	2012	2013	2012	2013	2012	
Sales	1 402	1 299	1 498	1 579	867	842	
EBIT	141	135	70	53	51	45	
Return on sales (EBIT margin) %	10.1	10.4	4.7	3.4	5.9	5.3	
Invested capital (IC)	621	559	384	437	274	273	
Return on invested capital (ROIC) %	18.7	18.6	16.1	12.1	15.2	16.4	
Employees at year-end	6 095	5 282	4 947	5 188	2 873	2 798	

Countries

Companies Production

## Content

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## Highlights 2013

### 4th Technology Day in Schaffhausen

- Innovative solutions // At the 4th GF Technology Day in October more than 60 analysts and journalists came for a presentation of several key innovations and for a glimpse at what is in store at GF regarding technology. The company invested more than CHF 100 million in research & development and registered 46 new patents last year. The three divisions showcased their latest innovations that were explained during workshops and key notes by the heads of the divisions.
- **Cutting-edge disinfection technology** // GF Piping Systems presented new high performance plastic water systems, free of dead space and featuring an innovative disinfection technology to prevent potential health risks caused by legionella.
- Reducing weight // Among others, GF Automotive presented an innovative structural component for car bodies (strut dome), replacing previous assemblies of ten different parts welded together.
- Precise machining of aircraft components // GF Machining Solutions presented a novel way of machining key components of aircraft engines with electro-erosion machines in order to substitute the expensive broaching process.
- Impressed guests // The Technology Day offered visitors a special opportunity to be better acquainted with the products and services of GF, while getting a sense of what the R&D strategy is. At the same time, making it possible to speak to management directly, guests got a lot of valuable market news, which facilitates the assessment of the financial and strategic future of the company.
- **Revisit on YouTube //** GF is present on Social Media channels. The video of the Technology Day is available on GF's YouTube channel www.youtube.com/georgfischercorp or via the QR-Code below:



6 GF Annual Report 2013 Highlights 2013









### Welcome Hakan Plastik



GF announced the acquisition of a majority stake in Hakan Plastik A.S. in Cerkezköy (Turkey) in May. Hakan Plastik is the leading provider of plastic piping systems in the building technology and water infrastructure markets in Turkey, the Middle East and Eastern Europe. Jointly, GF Piping Systems and Hakan Plastik provide a unique platform for further growth in the growth markets of those regions.

### Largest pipe ever built

For the first time GF Piping Systems built a polypropylene spiral winding sewage pipe with a diameter of 3.5 meters – the largest pipe GF Piping Systems has ever produced. In the province of Haining, close to Shanghai (China), the pipes of this size are used for municipal water transfer and also serve industrial purposes.

## Major order for GF Automotive

GF Automotive received a major order for over CHF 400 million from Audi in June. The light structural parts for the German car manufacturer Audi will be produced by aluminum pressure die-casting in Europe and China for several new car models. The new design features a better functionality and a lower number of components, resulting in a weight reduction of over 50%.

### IMA Lightweight Design Award

GF Automotive won the first prize at the International Magnesium Association (IMA) Lightweight Design Awards last May in China. The GF roof header forms the central part of the roof of Opel's convertible model Cascada. It was top of the category "Cast Component Design", an award which the division has won for the second time.

### Inspiring at the EMO 2013



At the EMO fair in Hanover (Germany) last September, GF Machining Solutions presented innovative products, solutions, and services and highlighted its application and process expertise. Customers visiting the divisions' stand were impressed by the new ways in which they can enhance their businesses in fast-growing market segments and placed major orders for over 100 machines as well as numerous customer services contracts.

## Renaming: GF Machining Solutions

On 1 January 2014, GF AgieCharmilles has been renamed GF Machining Solutions to better reflect the diversity of its present offering featuring electrical discharge machining, milling, laser texturing and automation lines. The new name also offers the division the opportunity to communicate its far broader scope than merely being a supplier of machine tools.

# A substantial rise in performance

### **Dear shareholders**

GF generated sales of CHF 3 766 million in 2013 for a nominal increase of 1%. On a like-for-like basis, corrected for changes in the scope of consolidation and currency effects, growth amounted to 2%.

After a weak first quarter, sales recovered especially in the second half year, which showed growth of 4% on the back of better market conditions but also market share gains.

Operating profit (EBIT) rose 13% to CHF 251 million as plants were better loaded in the second half and overhead costs were kept at the previous year's level.

The EBIT margin went up from 6.0% to 6.7%, and the return on invested capital (ROIC) from 15.7% to 16.7%. All three divisions contributed to the profitability increase and generated ROICs well above their cost of capital.

Free cash flow before acquisitions went up 76% to CHF 174 million thanks to the higher profit but also as net working capital was kept at previous year level and capital expenditures went slightly down. The number of employees increased by 654 to 14 066 mainly on account of the acquisition of Hakan Plastik (Turkey) in July 2013.

Net profit grew 5%, amounting to CHF 145 million after the deduction of CHF 26 million resulting from the divestment of the gravity die-casting business of GF Automotive.

Earnings per share stood at CHF 34, after the abovementioned one-off effect. The Board of Directors will propose a dividend of CHF 16 (CHF 15 in 2012) at the Annual Shareholders' Meeting.

#### Significant progress towards strategy implementation //

The acquisition in July 2013 of Hakan Plastik, a leading Turkish plastic piping systems manufacturer with annual sales of CHF 100 million, brings GF Piping Systems a strong presence in Turkey, in the Middle East and Eastern Europe as well as a whole array of complementary products, which will be sold by the whole GF Piping Systems sales organization.

The divestment of the aluminum gravity die-casting plant of Herzogenburg (Austria) at the beginning of 2014





Yves Serra, President and CEO and Andreas Koopmann, Chairman of the Board of Directors.

allows GF Automotive to focus on its core iron sand casting as well as aluminum and magnesium pressure die-casting activities.

The cost reduction program of CHF 25 million announced at the beginning of the year has been implemented in full and already supported the second-half result. It will be fully effective in 2014. All three divisions increased their sales and operative profits

### **GF** Piping Systems

GF Piping Systems increased its top line by 8% to CHF 1 402 million, of which acquisitions accounted for 5% and organic growth 3%. A long and cold winter impacted sales negatively during the first four months in Europe, compensated however by higher revenues as of May, especially in Asia.

Industrial applications recovered in the second half in all regions. Building technology went up significantly thanks to new products in Europe and a larger customer base in China. Utility-related sales remained subdued in Europe but increased significantly in the Americas and in Asia.

Thanks to the acquisition of Hakan Plastik as well as higher growth in Asia and North America, sales outside of Europe accounted for about 60% of the total.

The division increased its operating profit by 4% to CHF 141 million thanks to a better plant load factor and despite negative currency effects in Turkey, India, Japan and Brazil.

#### **GF** Automotive

GF Automotive saw a nominal 5% decrease in sales to CHF 1 498 million owing to the divestment end of 2012 of its sand casting aluminum plants in Germany. Organic growth stood at 1%.

The Chinese car industry again reported double-digit growth, and the two plants of GF Automotive in that country were fully loaded.

The passenger car industry in Europe however remained on a downwards trend especially during the first half. In the second half, however, the division significantly increased its truck-related sales in Europe as customers increased production in view of the year-end Euro 6 deadline but also thanks to significant market share gains on new generations of commercial vehicles.

The division increased its operative result by 32% to CHF 70 million, thanks to a better plant utilization in the second half and as the cost reductions implemented in the first half-year became effective.

The capacity of the two Chinese plants of GF Automotive is being increased by 50%, effective 2015. In Singen, (Germany) the construction of a cutting-edge production line for light-weight components will be started this year for completion end of 2015. It will replace two existing lines, boosting the productivity and competitiveness of this important facility.

#### **GF Machining Solutions**

GF AgieCharmilles has been renamed GF Machining Solutions to better reflect the diversity of its present offering featuring electro-erosion, milling, laser texturing and automation lines.

The division increased sales by 3% to CHF 867 million in an overall subdued market, thanks to its success in less cyclical market segments like aeronautics, medical devices and smart phones.

Sales in Europe and the US rebounded whilst demand declined in countries affected by currency depreciations such as India or Brazil. In the important China market, the sales development was pretty uneven as tighter financing affected privately owned companies.

The operating profit of the division went up 13% to CHF 51 million thanks to better margins and higher productivity.

At the EMO 2013 in Hanover (Germany), GF Machining Solutions presented products adapted to its key market segments and in particular new solutions to replace broaching with wire-EDM for the production of key aircraft engine components.

Financing secured // GF emitted two bonds of CHF 150 million each in August 2013 with maturities of 5 and 9 years respectively and coupons of 1.5% and 2.5%. The corporation tapped the favourable market conditions in order to secure funds for the redemption of its 4.5% CHF 300 million bond due in September 2014 but also to allow for the financing of further acquisitions. The equity ratio stood at 31% end of 2013.

#### Accounting and objectives adapted to Swiss GAAP FER //

GF has changed its accounting standard from IFRS to Swiss GAAP FER as from fiscal year 2013 on. The 2012 figures have all been adapted as follows in order to ensure a correct comparison with 2013: The change of the accounting standard had no material impact on the 2012 results. It just led to a slight EBIT rise of CHF 1 million, therefore bringing it to CHF 222 million. In the balance sheet, the major change concerns goodwill, which has been offset with equity.

This leads together with other effects to a reduction of equity in the amount of CHF 262 million as per 1 January 2012. The ROIC objective of 15% at the horizon 2015 has been translated into a 16% to 20% range, reflecting the deduction of goodwill from the invested capital according to Swiss GAAP FER.

Mid-term objectives confirmed // Markets remain volatile but the second half has shown an upwards trend in several markets relevant to our corporation. GF Automotive and GF Machining Solutions built up a strong order book, certainly a good sign for 2014.

Moreover, thanks to the latest transactions, a better portfolio balance will be achieved in 2014 with GF Piping Systems and GF Automotive accounting each for about 40% of total sales. This is a further milestone in the implementation of the 2015 strategy of the corporation.

The management of GF is therefore convinced, that barring unforeseen circumstances, further increases in both top and bottom lines are possible in 2014 and confirms its 2015 profitability objectives of a ROIC in the 16% to 20% range and an EBIT margin above 8%.

Articles of Association to be adapted for all listed companies in Switzerland // The ordinance against excessive remuneration in listed companies that came into force on 1 January 2014 requires certain adaptations in the Articles of Association at all listed companies in Switzerland within two years.

Accordingly, the Board of Directors will propose at the 2014 Annual Shareholders' Meeting the revision of a number of articles, including those related to the representation of shares, the elections of the Board of Directors and Compensation Committee members, as well as the limitation of mandates held by the members of the Board of Directors and the Executive Committee of Georg Fischer Ltd in other companies.

The revision of the Articles of Association regarding the remuneration of both Board of Directors and Executive Committee will be reviewed by the Board of Directors during 2014, upon the assessment and advice of the newly elected Compensation Committee, and submitted for approval to the 2015 Annual Shareholders' Meeting.

Working together to serve our customers // We express our gratitude to our investors and our banks for their continuing trust as evidenced by the successful placement of our two bonds in 2013. We also send our heartfelt thanks to our customers for their constant feedback and close collaboration which inspires and allows us to serve them better and quicker. Finally, our special thoughts go to our employees whose willingness to live up to our values and work together across borders makes all the difference.

Andreas Koopmann Chairman of the Board of Directors

4/j.

**Yves Serra** President and CEO



## "Customers are a key source of inspiration for us"

#### "Innovations – inspired by our customers" is the title of your annual report. What do you mean by this?

Customers are a key source of inspiration for us. By noticing how they use our products, by working together on addressing their needs, we bring about innovations which have a better chance to really serve them.

#### Can you provide examples of such GF innovations?

Take the three cases presented on the following pages. GF Piping Systems developed the large-size fittings and valves as well as all sensors required for the huge amount of water used at the vast water-based amusement park near Sydney. We guarantee therefore their compatibility, eliminating leaks and contamination. GF Automotive was involved in the development of the new DAF commercial vehicle at a very early stage and designed components which allow DAF to reduce the weight of each truck by 70 kilograms. This clearly helps to reduce diesel consumption and CO<sub>2</sub> emissions. In the aeronautics sector, GF Machining Solutions worked together with its customer MTU and adapted its high speed milling machines, including a new CNC (Computerized Numerical Control) to fit the needs of its customer regarding the large scale production of blisks for the new aircraft engines to be mounted on the Airbus A320neo.

Yves Serra, President and CEO





#### GF has decentralized its R&D centers. Why?

Customers in our market sectors want to have partners who are located in their countries and therefore who can better understand their needs and quickly act upon them. That is why we have decentralized R&D operations in the major markets where we operate, in Europe, in the Americas, and in Asia.

### "Customers in our market sectors want to have partners who are located in their countries."

#### What is the role of Switzerland in this regard?

We have over the years accumulated a huge amount of expertise in Switzerland and our central R&D facilities and are therefore located in this country. In addition, we are producing the core components for our machine tools or our piping systems in Switzerland because this is where we have the know-how to do so. The R&D facilities worldwide benefit from the support of our engineers based here, for example in the transfer of technology and expertise. We also coordinate from Switzerland the worldwide R&D activities to make sure of their efficiency and avoid duplications.

### All the more important to have the right talents. What are you doing to make GF attractive to them?

We continuously offer a large amount of internships to business and engineering students across the world. We collaborate on numerous research and development projects with the key universities located in the main markets. For example, in 2012 we started a new collaboration with the Department of Management, Technology and Economics (MTEC) at ETH Zurich, one of the world's leading universities. The project, which will continue in 2014, offers master class students projects for their theses which give them insights into an actual company environment, while we get an outside perspective and new ideas. All the above we do to make sure GF not only remains but is also regarded as an attractive employer offering interesting jobs internationally.

**Cameron Woods,** Sales Manager at GF Piping Systems, Australia, is very proud of the recently opened Wet'n'Wild amusement park, near Sydney. The water that runs through the racy slides comes out of pipe systems supplied by GF.

+GF+

## "A refreshingly different solution"

## 6 800 000 liters

volume of water in the largest pool

At Wet'n'Wild Sydney, the world's largest waterpark with over 40 exciting waterslides, a piping system of GF ensures constant action and watery fun. Cameron Woods, Sales Manager NSW (New South Wales), convinced the customer to purchase a complete solution for the highly complex facility.

Fun in the water // Sunshine and temperatures during daytime of 30°C plus in the middle of December are totally normal in Sydney! After all, when winter rules the northern hemisphere, it's the height of summer in the south. Except for its famous beaches like Bondi Beach, the Australian metropolis has few alternatives to offer for cooling off and feeling refreshed. In the western part of Sydney – almost 40 kilometers away from the ocean – Wet'n'Wild Sydney opened its doors in December 2013 as the world's largest waterpark, covering more than 25 hectares with over 40 waterslides and attractions.

00 meters of pipes // Cameron Woods, Sales Manager NSW at GF Piping Systems Australia, is also looking forward to a day full of fun and relaxation at Wet'n'Wild. All the pipes, fittings and valves that supply the park's swift waterslides and huge pools come from GF.

Around 2 200 meters of piping with 3 756 cemented connections and over 600 valves were installed in the massive facility in the months prior to opening. "As project manager, I supervised the construction at Wet'n'Wild Sydney from start to finish," says Woods. Now he can finally relax a bit, the park's grand opening on December 12, 2013 went off successfully. By 8 o'clock in the morning, hundreds of impatiently waiting Wet'n'Wild fans stormed the entrances to the waterpark to test the spectacular and breathtakingly-fast waterslides for the first time. 65 000 people visited the park in the first week alone.

**rk of superlatives //** Some of the highest and fastest waterslides in the world can be found among the more than 40 attractions at Wet'n'Wild. Adrenaline junkies can get their fill on "360 Rush". After a 12-meter-long nearly vertical start, it goes into a 360° loop at speeds up to 60 km/hour. Only people who don't mind getting dizzy should plunge into the eye of the "Tropical Cyclone" with its wild eddies. In the "Half Pipe", after a wild ride through the darkness you feel almost weightless for a moment before you drop another 16 meters down a steep ramp.

Wet'n'Wild Sydney is the fifth waterpark in the Village Roadshow Theme Parks family under this label, joining locations in Gold Coast, (Australia) Hawaii, Phoenix and Las Vegas (USA). Village Roadshow invested circa CHF 96 million in the new Park in Sydney, circa 6.5 million of which was budgeted for marketing. The waterpark creates around 300 new jobs in northern Sydney. The operating company anticipates revenues of over USD 500 million in the first ten years, and a value of up to USD 320 million for the domestic economy. Wet'n'Wild Sydney expects over 900 000 visitors in its first season.

## 42

number of waterslides and attractions

2200 meters of piping



adhesive bonded joints

Naturally, Wet'n'Wild Sydney also has something to offer for calmer guests and families. "The Beach" is Australia's largest pool with more than 6.8 million liters of water, waves and a large sandy beach for sunbathing and relaxing. Or you can float down "Boomerang Bay" on an inner tube, enjoying an almost 500-meter-long artificial river with a sandy shore and several different currents. The "Surf Deck" is a total novelty, a surf simulator that can generate waves in a wide variety of shapes and sizes. That is why it is safe for beginners, but also challenging for surf pros.

### 3 questions:

Mark McLaughlin, Director of Swimplex Aquatics, about working with GF.

## Have you ever had a project as big as Wet'n'Wild Sydney?

No, Wet'n'Wild was a much larger facility than we normally build. We needed a vast number of different components for the park's piping system. Our biggest concern was getting all the components at the right time and in the right number. Only GF Piping Systems was able to deliver all the components as a complete system. GF's team in Sydney quickly convinced us that not only would they sell us the parts: they could actively support us during the installation as well.

## What advantages did GF Piping Systems' products and service offer?

Naturally, there was no doubt as to the high quality of GF Piping Systems' products. For Wet'n'Wild, we needed a solution that is cost-effective and guarantees a long service life. GF's excellent support offered another major advantage. The GF project team has supported us continually with technical advice, whenever we had questions or problems – in particular during the delicate approval phase for the waterpark.

#### Could you sum up the Wet'n'Wild Sydney project?

I am very happy that we were able to finish the park right on time for the opening day, considering the very short installation period of only three months. The opening was a great success, it was a wonderful day and everything went well. We are now in a transitional phase, in which we once again check whether everything is working seamlessly, before Wet'n'Wild takes on full responsibility for the park. We found a reliable partner in GF Piping Systems, one that we would gladly work with again anytime.



Eleven water slides are spread out over the 25-hectare compound.

## "We succeeded in safely combining a variety of different standards."

**One-stop shopping //** The operating company, Australian media group Village Roadshow Limited, invested circa CHF 96 million in Wet'n'Wild Sydney. Swimplex Aquatics construction company was responsible for building the water attractions and slides. "This project was a big challenge for us," says Mark McLaughlin, Director of Swimplex Aquatics. GF Piping Systems was the perfect partner for his company. "We were the only provider that could deliver all the necessary components for the piping system from a single source," explains Cameron Woods.

Metric meets imperial // PVC pipes with diameters ranging from 15 to 375 millimeters were used, in addition to ball valves and butterfly valves of every conceivable size. But another difficulty came with the large number of different parts: Since the waterslides were constructed in the USA, the engineers in Sydney had to combine imperial-sized conduits with metric fittings and pipes. "We succeeded in finding a solution for this challenge as well and combining the different standards safely," reports Woods. GF Piping Systems used piping and



With GF Signets 9900 Transmitter, all relevant water parameters are visible at a glance.

components from its subsidiaries all over the world at Wet'n'Wild Sydney. PVC-U pipes and fittings in imperial sizes came from GF Harvel and GF Sloane in the USA; metric PVC pipes and valves from Switzerland; ELGEF fittings from Australia and instruments for monitoring water pressure and flow rates came from GF Signet in the USA.

On-site training // "This was truly a global project," says Cameron Woods. He and a dedicated project team ensured that the right parts were at the construction site at the right time. GF trained the Swimplex Aquatics employees on location for the proper installation of components. "In addition, we were available to the customer around the clock to answer questions," explains Woods. This enabled them to wrap up the installation in a three months record, right on time for the opening day. "Wet'n'Wild and Swimplex Aquatics were extremely satisfied with our performance," Woods notes with pleasure.

Marcus Wackermann, Market Segment Manager for utility vehicles at GF Automotive, is GF's heavy-truck expert. He is the link between the customer, the R&D department and the manufacturing sites. Together with his colleagues, Wackermann developed innovative lightweight components for the new DAF XF.

## "Great mutual respect and trust"

## 70 kg

weight reduction in the rear axle of the new DAF XF thanks to lightweight components made by GF Automotive

To compensate for the extra weight of new truck emission control systems, the lightweight expertise of GF Automotive is in high demand. Marcus Wackermann, Market Segment Manager Commercial Vehicles, supervised solutions for the Dutch truck manufacturer DAF in close consultation with the sites of the division. Thanks to the good collaboration, new DAF XF trucks are constructed with lightweight, innovative components from GF Automotive.

Demanding emission standards // Sometimes, heavy-duty vehicles really are faster than passenger cars – not necessarily in terms of their top speed but in their willingness to adopt innovations. Right now, that is exactly what's happening with the introduction of new, more stringent emission standards. Starting from the 1st of January 2014, only utility vehicles that meet the "Euro 6" norm can be registered. By contrast, a longer transition period is available for passenger cars, still allowing new Euro 5 models on the roads.

But the implementation of the Euro 6 standard presents an enormous challenge for the makers of heavyduty vehicles: "Adding the new emission controls can increase a truck's weight up to 280 kilograms, which could reduce its payload by the same amount," says Marcus Wackermann, Market Segment Manager for utility vehicles at GF Automotive. "The added weight of Euro 6 technology would be completely unacceptable for freight forwarders." That's because first, every additional kilogram the vehicle weighs means higher fuel consumption, and second, the smaller payload reduces overall transport efficiency, which is the lifeblood of the industry. Accordingly, the makers of such vehicles have been feverishly looking to offset the unavoidable additional weight that comes with emission control systems by finding intelligent weight reduction in other areas.

Search for ways of saving weight // That is certainly true for the Dutch utility-vehicle maker DAF Trucks, where the conversion to Euro 6 engines was carried out even before the law required it. The top model of its new generation of vehicles, the new DAF XF, presented at the IAA Commercial Vehicle Show in 2012, showed transport industry customers that everything had been done to offer the Euro 6 technology without increasing the overall load. In their intensive search for ways of saving weight, DAF engineers were also able to take advantage of their long-standing partnership with GF Automotive, a company with outstanding competence in lightweight materials. "DAF got us on board early in the development of the new XF," recalls Marcus Wackermann. Since 1996, DAF Trucks N.V. belongs to PACCAR Inc, one of the USA's largest commercial vehicle groups. It is among the most successful truck manufacturers in Europe. The keys to success: first class trucks and comprehensive service offerings. This is supported by a network of over 1000 independent dealers in Europe, the Middle East, Africa, Australia, and Brazil. DAF has its own production facilities in the Netherlands, Belgium, and the UK.

## 510

horse power of the strongest version of the NEW EURO-6-MOTOR PACCAR MX-13

## 150000

the distance between maintenance intervals in km

**19%** DAF's share of the European

heavy utility-vehicle segment



Relationship with DAF // "That gave us the chance to apply our ideas and expertise from the start in the best way possible. Exhibiting at a large-scale road show was invaluable: we actively showed customers all the things we could do – a strategy that worked for us and introduced new ideas to the customers." Of course, it helped that the relationship with DAF had existed for many years and was "characterized by great mutual respect and trust", Wackermann emphasizes.

## "DAF got us on board early in the development of the new XF truck."

Highlight rear axle design // It is no surprise that the components found in the new XF come from a broad range of the GF Automotive services portfolio. These include frames, cabs, chassis and drivetrains. "We were able to help in several aspects," Marcus Wackermann explains. In terms of weight, the rear-axle design is a highlight, developed jointly for DAF with the auto supplier ZF who is nominated as rear-axle module supplier. Compared to its predecessor, the new rear-axle model alone is almost 70 kilograms lighter - proof of the high level of competence in lightweight design of GF Automotive in collaboration with DAF. "Through our mold and casting techniques, we are able to reduce wall thickness reliably to as little as five millimeters and in this way contribute to lighter designs." But also in vertical manufacturing, GF Automotive and DAF have ushered in a new era: what gets shipped out at the end of the production line of the GF Automotive Herzogenburg plant in Austria is no longer an unfinished component but, for the first time, a complete exhaust manifold, ready to be installed during engine production.

For DAF, that means higher quality and optimal lead times – a strategy that can also be applied to other areas. But GF Automotive can be useful to DAF from another, quite different perspective as well: flexibility. When several components from another supplier had to be replaced at short notice during the development phase of the XF, GF Automotive immediately stepped in. Ensuring that these parts were of higher quality than the original ones was the stated goal of GF Automotive.



Flexibility // "DAF is an important customer," explains Achim Schneider, Business Development & Sales Manager at GF Automotive. "For one thing, it is an extremely innovative company, one that has long been interested in our know-how with lightweight components. Second, its brand is continually gaining market share in a highly competitive European market." In fact, despite the difficult market conditions in the heavy semi-trailer tractor segment, which includes the new XF, DAF has risen to be number one in Europe with a 19% share of the market.

Its global growth is even stronger, not least due to the fact that DAF is part of the largest American utilityvehicle maker PACCAR, which also owns the US brands Kenworth and Peterbilt. All three models make use of the MX-13 and MX-11 "world engines", which also contain technology from GF Automotive. And according to the forecasts of the majority of logistics experts, the global utility-vehicle market will continue to grow. So it is no surprise that Achim Schneider emphasizes: "The utility vehicle segment is strategically very important for GF Automotive. It already accounts for more than one quarter of our sales. Because it is increasingly becoming more global, it represents an interesting growth potential for our high-performance components."

### **3 questions:**

Jos Smetsers, Procurement Director PACCAR Europe, Board of Management DAF Trucks, about working with GF.

## How would you describe the relationship between DAF and GF?

With all our suppliers, we look for a demanding, professional collaboration based on mutual respect. At DAF, we realize that our suppliers play a key role in making optimal transport solutions available for our customers.

How can GF Automotive contribute to your success? There are many possibilities for improving transport efficiency. An extremely important role, for example, is played by weight-reduction measures. We always look forward to the innovative ideas and suggestions proposed by GF for improving the operating efficiency of DAF vehicles.

What else would you ask from GF as a DAF partner? In everything we do, our mindset has to be: good today, better tomorrow, so that we can offer our customers continuous improvements. GF is an extraordinarily capable company that offers the best solutions available on the market with excellent quality. We are a strong team.

Jürg Suter, Head of Customized Solutions at GF Machining Solutions in Nidau, shows a lot of flexibility and dedication in fulfilling the special demands of the aircraft engine manufacturer MTU. By 2016, 20 milling machines will be delivered to the customer.

1

## "Our machines are up to the task"

## 6000 hours

availability of the machines during the year, as requested by MTU

MTU Aero Engines, a global player in the aircraft engine industry, has chosen the milling technology of GF Machining Solutions. Jürg Suter, Head of Customized Solutions in Nidau, has to supply machines that meet the very high standards of this important customer. In aerospace, absolute precision and hundred-percent quality are not an option but an obligation.

Hidden Champion // Only a few realize that at one of the busiest autobahn sections in Munich, there's a nerve center of global mobility: the headquarters of MTU Aero Engines, a leading player in the world's aviation industry, is located at Munich-Karlsfeld, where day after day, thousands of commuters and truck drivers have to deal with stop-and-go traffic. Michael Eder who as Key Account Manager for GF Machining Solutions is in charge of the MTU Aero Engines account remarks with a smile: "The slogan 'hidden champion' has rarely been truer." At the next traffic lights, Eder turns his car into the visitor parking lot at the MTU plant. Eder has an appointment with Walter Sürth, Director of Blisk Production. It's important because in the spring of 2013, MTU Aero Engines started up a new manufacturing hall, in which GF Machining Solutions milling machines create highly complex engine components

Swiss precision // The machines of the MIKRON HPM 800U type are produced by GF Machining Solutions in Nidau. There, Jürg Suter, Head of Customized Solutions, is in charge of the processing of the MTU contract. The first milling centers were delivered in October 2012, and by 2016 there will be 20 of them installed, if the customer continues to be satisfied with their performance and service. Jürg Suter appears confident. "Naturally, their demands are high, but our machines are up to the task." Nevertheless, visits to Karlsfeld are not taken lightly, because, as Suter knows, MTU Aero Engines is rightfully "a very exacting customer."

**Invative technologies //** MTU Aero Engines, with its 8 500 employees and close to EUR 3.4 billion annual sales, is one of the world's leading suppliers of engine components – along with Rolls-Royce, GE Aviation, and Pratt & Whitney. These companies drive the continuing growth of the total aviation industry. Estimates by ICAO, the international civil aviation organization, suggest that world-wide, some 3 billion passengers travelled by plane in 2013, and the trend is rising. EADS and Boeing forecast passenger numbers to grow by 5% annually until 2030. This boom is being driven by innovative engine technologies, as Walter Sürth explains at the MTU production site in Munich: "The big aircraft manufacturers are racing for efficiency. For example, the new Airbus A320neo should use 15% less fuel than its MTU Aero Engines is Germany's leading manufacturer of aircraft engines and a big player in the international aeronautics industry. This high-tech company develops, manufactures, sells and supports civil and military aircraft engines. Emerging from BMW Aero Engines, MTU was part of the MAN Group until 1985, then owned by Daimler Chrysler. In 2005, the company became independent and went public. About 60% of its shares are in free float.

20

number of GF milling machines in the new blisk manufacturing hall

## -15%

fuel savings of the A320neo engine compared with the current A320 engines

**65** 

investment for the expansion of the blisk production, in million EUR predecessors. Noise levels must also be reduced. Those are the challenges the engineers of the engine makers are facing."

Custom designed solutions // MTU has accepted this challenge and invested some EUR 65 million in building the hall, equipped with a modern manufacturing and logistics system for making high-pressure and medium-pressure compressors using blisk (blade integrated disk) design. These engine components are particularly efficient and light. Blisks are high tech products that are fully manufactured in a single piece - at MTU, this is done using GF Machining Solutions milling machines. Blisks improve aerodynamics and efficiency of the engines. The Munich firm is the worldwide leader in this domain and makes no compromises with respect to either quality or process stability. Michael Eder - Key Account Manager for GF Machining Solutions in charge of the MTU Aero Engines account - has the corresponding level of responsibility: "MTU is planning to expand its blisk production capacity from the current 600 to up to 3 500 by 2016.

### 3 questions:

Walter Sürth, Director of Blisk Production MTU Aero Engines, about working with GF.

### What are the biggest challenges of making blisks?

Blisks are extremely complex components. That's why the biggest challenge is to provide continuous process stability and control the necessary supply chain. Given our production volumes, there is simply no room for errors or instabilities in our order processing, so we have to be able to rely on our machinery one hundred percent.

## Why did MTU Aero Engines decide to use machines from GF Machining Solutions?

The decisive point was the compact machine design with the integrated pallet changer. The machines can be loaded from behind, which is a unique feature that, as far as I know, no competitor offers. Moreover, GF Machining Solutions has adapted the machines for us and our control standards.

## Series production has been going since September 2013. Can you already give a first evaluation?

The initial experiences have shown that even with the most demanding tolerance specifications, the production results are very good, especially with respect to reproducibility. That is extremely important to us: the precision demanded for the parts is so high that we cannot allow even minimal deviations. Due to the uniform results of the GF Machining Solutions machines, we are completely flexible.



As super alloys get even tougher and more heat resistant, EDM becomes the solution.



Conventional engine blades are made up of many individual parts.

Modern blisks are milled from a single piece.



The machines in the compact series MIKRON HPM 800U are among the most productive milling centers of their kind, also thanks to their flexibility and accessibility.

To succeed, GF Machining Solutions is delivering custom designed solutions to MTU." Actually, the machines already installed in the blisk hall have very little in common with standard milling machines. "A team of engineers around Jürg Suter has adapted the machines exactly to customer requirements. We even adapted the MIKRON HPM 800U to be able to use Siemens controls, even though this type of machine wasn't designed for that interface at all."

## "Our engineers have adapted the machines precisely to the requirements of MTU."

**480 engines annually //** Currently, the GF Machining Solutions milling machines are working on compressor stages for the fuel-efficient and especially quiet engines of the PurePower family from Pratt & Whitney. The decisive benefit for MTU: every machine can make every component, so that different blisks for different engine models can be in process when necessary.

Starting in 2014, the lion's share of production will be dedicated to parts for the geared turbofan engines of the A320neo, 2 500 of which have been ordered, making it the bestseller for Airbus. About half the aircrafts are to take off with power units from Pratt & Whitney. For MTU, that means that, as quickly as possible, production of components for the A320neo must be ramped up from zero to as many as 480 engines annually. Once fully installed, the GF Machining Solutions machines should be able to produce up to ten blisks a day. "That is an enormous quantity and the MIKRON HPM 800U will be able to do it all," says Michael Eder, explaining, "with MTU Aero Engines we have promised to provide machine availability of 6 000 working hours per machine per year. That corresponds to working constantly for 250 days. That's a promise we will keep."

## **Five-year overview Corporation**

lion CHF	2013	2012	2011	2010	2009
Order intake	3 795	3 691	3 734	3 625	2 906
Orders on hand at year-end <sup>1</sup>	577	565	666	579	475
Income statement					
Sales	3 766	3 720	3 638	3 447	2 900
EBITDA	380	351	370	329	10
Operating result (EBIT)	251	222	235	180	-20
Net profit/loss	145	138	168	108	-23
Cash flow					
Cash flow from operating activities	309	230	250	243	24
Cash flow from investing activities	-201	-211	-147	-93	-14
Free cash flow before acquisitions/ divestitures	174	99	103	150	10
Free cash flow	108	19	103	150	9
Balance sheet					
Assets	3 126	2 664	2 925	2 838	2 91
Liabilities	2 148	1 685	1 702	1 714	1 76
Equity	978	979	1 223	1 124	1 15
Invested capital (IC)	1 224	1 217	1 476	1 418	1 59
Net debt	352	334	294	321	47
Key figures					
Return on equity (ROE) %	14.8	14.2	14.0	9.5	-18.
Return on invested capital (ROIC) %	16.7	15.7	13.3	9.1	-12.
Return on sales (EBIT margin) %²	6.7	6.0	6.5	5.2	-2.
Asset turnover	3.0	3.2	2.5	2.3	1.
Cash flow from operating activities in % of sales	8.2	6.2	7.0	7.0	8.

In 2012 change of definition for GF Piping Systems.
In 2009 before special charges.

The consolidated financial statements have been prepared in accordance with Swiss GAAP FER since the beginning of 2013. Prior year figures have been adjusted accordingly. The years 2009-2011 are represented according to IFRS.

## Balance sheet as per 31 December 2013

Cash and cash equivalents	641		330	
Marketable securities	12		8	
Trade accounts receivable	568		524	••••
Inventories	647		630	
Income taxes receivable			5	···•
Other accounts receivable	63	<u> </u>	62	
Prepayments to creditors	16		15	<b>.</b>
Accrued income	13		10	
Accided income	23		IU	
Current assets	1 989	64	1 584	Ę
	1 707	04	1 364	;
Property, plant and equipment for own use	965		923	
Investment properties	43		47	
Intangible assets	23		20	
Deferred tax assets	90		79	
Other financial assets	16		11	
Non-current assets	1 137	36	1 080	L
Assets	3 126	100	2 664	10
Trade accounts payable	421		348	
Bonds	300			
Other financial liabilities	149		124	
Loans from pension fund institutions	26		27	
Other liabilities	60		50	
Prepayments from customers	47		45	
Current tax liabilities	43		39	
Provisions	38		29	
Accrued liabilities and deferred income	175		177	
Liabilities held for sale	23			
Current liabilities	1 282	41	839	(
Bonds	496		497	
Other financial liabilities	34		24	
Pension benefit obligations	128		124	
Other liabilities	46		45	
Provisions	120		116	
Deferred tax liabilities	42		40	
Non-current liabilities	866	28	846	,
	000	20	040	;
Liabilities	2 148	69	1 685	(
Share capital	41		41	
Share premium	60		121	
Treasury shares	-9		-5	
Retained earnings	843		778	
Equity attributable to shareholders of Georg Fischer Ltd	935	30	935	
Non-controlling interests	43	1	44	
Equity	978	31	979	
Liabilities and equity	3 126	100	2 664	1

The consolidated financial statements have been prepared in accordance with Swiss GAAP FER since the beginning of 2013. Prior year figures have been adjusted accordingly.

### Income statement for the year ended 31 December 2013

lion CHF	2013	%	2012	
Sales	3 766	100	3 720	10
Other operating income	28		38	
Income	3 794	101	3 758	10
Cost of materials and products	-1 804		-1 859	
Changes in inventory of unfinished and finished goods	-38		21	
Operating expenses	-658		-654	
Gross value added	1 294	34	1 266	
Personnel expenses	-914		-915	
Depreciation on tangible fixed assets	-126		-125	
Amortization on intangible assets	-3		-4	
Operating result (EBIT)	251	7	222	
Interest income	3		2	
Interest expense	-36		-35	
Other financial result	-12		-2	
Share of results of associates			1	_
Ordinary result	206	5	188	
Non-operating result	1		1	
Extraordinary result	-26		-16	
Profit before taxes	181	5	173	
Income taxes	-36		-35	
Net profit	145	4	138	
– Thereof attributable to shareholders of Georg Fischer Ltd	139		132	
– Thereof attributable to non-controlling interests	6		6	
Basic earnings per share in CHF	34		32	
Diluted earnings per share in CHF	34		32	

The consolidated financial statements have been prepared in accordance with Swiss GAAP FER since the beginning of 2013. Prior year figures have been adjusted accordingly.

## Statement of cash flows for the year ended 31 December 2013 (condensed)

lion CHF	2013	201
Net profit	145	13
Depreciation and non-cash income/expenses	264	25
Use of provisions	-24	-2
Changes in net working capital	15	-5
Changes in other receivables and accrued income	-4	-
Changes in other liabilities and accrued liabilities and deferred income	-13	-1
Interest and income taxes paid	-74	-(
Cash flow from operating activities	309	23
Cash flow from investing activities	-201	-21
Free cash flow before acquisitions/divestitures	174	C
Free cash flow	108	
Cash flow from financing activities	207	_9
Net cash flow	311	-8

The consolidated financial statements have been prepared in accordance with Swiss GAAP FER since the beginning of 2013. Prior year figures have been adjusted accordingly.

## **Proposal by the Board of Directors**

### Proposals by the Board of Directors for the appropriation of retained earnings 2013

00 CHF	2013	2012
Net profit for the year	76 747	100 567
Earnings carried forward	792 346	689 771
Reduction/allocation to treasury share reserves	-3 882	2 008
Retained earnings	865 211	792 346
To be carried forward	865 211	792 346

#### Proposals by the Board of Directors for the appropriation of reserves from capital contributions 2013

000 CHF	2013	2012
Reserves from capital contributions carried forward from previous year	38 689	100 202
Balance as per 31 December 2013	38 689	100 202
Dividend payment out of reserves from capital contributions <sup>1</sup>	-28 706	-61 513
To be carried forward	9 983	38 689

1 The dividend payment is based on the issued share capital as per 31 December 2013. No distribution will be made for treasury shares held by Georg Fischer Ltd.

The Board of Directors will propose to the Annual Shareholders' Meeting of 19 March 2014 to carry forward retained earnings as of 31 December 2013 to new account and to pay out a dividend of CHF 7 per registered share free of 35% withholding tax out of reserves from capital contributions. In addition, the Board of Directors will propose to the Annual Shareholders' Meeting a par value reduction of CHF 9 to CHF 1 per registered share. A profit distribution of CHF 16 will be proposed to the Annual Shareholders' Meeting.

In the previous year, a dividend of CHF 15 per share free of 35% withholding tax was paid out of reserves from capital contributions according to the decision taken by the Annual Shareholders' Meeting of 20 March 2013.

Schaffhausen, 14 February 2014

For the Board of Directors The Chairman

Andreas Koopmann

## **Share information**

	2013	2012	2011	2010	2009
Share capital					
Number of shares as per 31 December					
Registered shares	4 100 898	4 100 898	4 100 898	4 100 898	4 100 898
Thereof dividend-entitled	4 100 898	4 100 898	4 100 898	4 100 898	4 100 898
Number of registered shareholders	12 269	14 212	13 966	14 180	15 410
Share prices in CHF					
Registered share					
Highest (intraday)	648	451	574	579	300
Lowest (intraday)	363	302	261	261	110
Closing as per 31 December	628	368	321	528	262
Earnings/loss in CHF					
Per registered share	34	32	39	24	-61
Price-earnings ratio	18	11	8	22	n/a
Market capitalization as per 31 December					
million CHF	2 573	1 509	1 316	2 163	1 073
In % of sales	68	41	36	63	37
In % of equity attributable to shareholders of Georg Fischer Ltd	275	161	112	200	97
Cash flow from operating activities in CHF					
Per registered share	76	56	61	59	60
Equity attributable to shareholders of Georg Fischer Ltd in CHF					
Per registered share	229	229	288	264	273
Dividend paid (proposed) in million CHF <sup>1</sup>	66	62	62	41	0
Dividend paid (proposed) in CHF					
Per registered share <sup>1</sup>	16	15	15	10	0
Pay-out ratio in %	47	47	38	42	n/a

1 In 2013 as a par value reduction of CHF 9 and as a dividend of CHF 7 out of reserves from capital contributions. In 2012 and 2011 as dividend out of reserves from capital contributions. In 2010 as a par value reduction.

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## Save the date

### 2014

19 March // Shareholders' Meeting for fiscal year 201317 July // Publication of Mid-Year Report 2014

### 2015

24 February // Publication of Annual Report 2014, Media and Financial Analysts' Conference 18 March // Shareholders' Meeting for fiscal year 2014

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Cover and page five: employees of Georg Fischer Ltd

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