

+GF+

Annual Report 2018

Short version



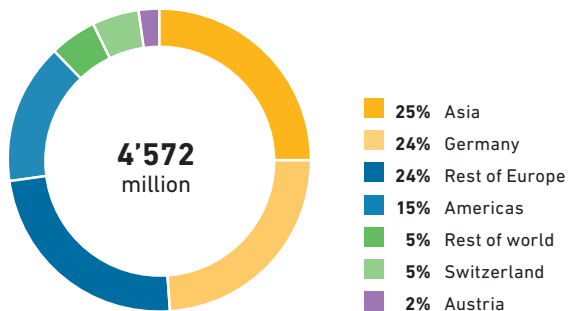
Keeping GF successful

At a glance

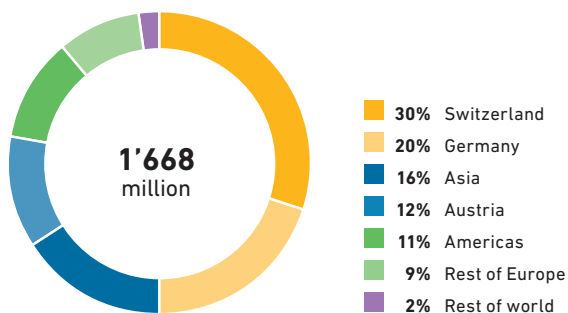
GF at a glance

GF comprises three divisions: GF Piping Systems, GF Casting Solutions, and GF Machining Solutions. Founded in 1802, the Corporation is headquartered in Switzerland and is present in 33 countries with 140 companies, 57 of them production facilities. Its 15'027 employees generated sales of CHF 4'572 million in 2018. GF is the preferred partner of its customers for the safe transport of liquids and gases, lightweight casting components, and high-precision manufacturing technologies.

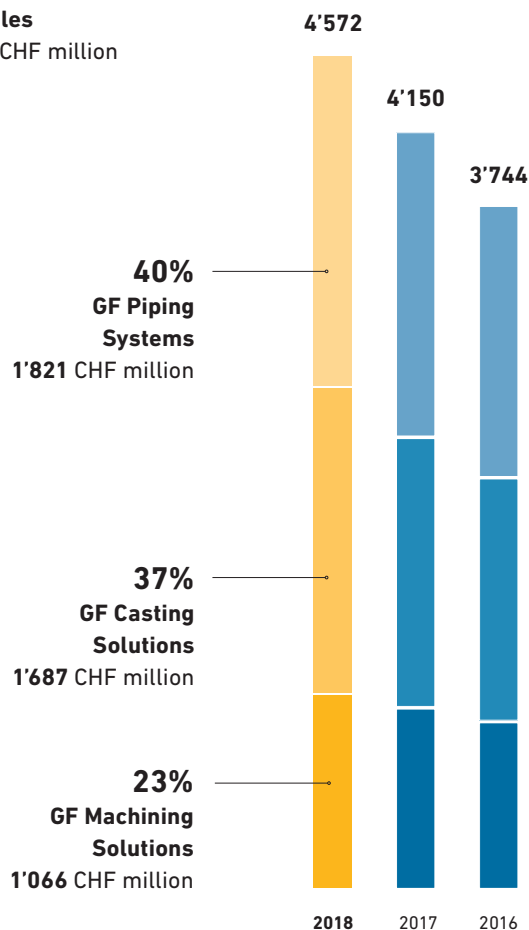
Sales per region
in CHF



Gross value added per region
in CHF



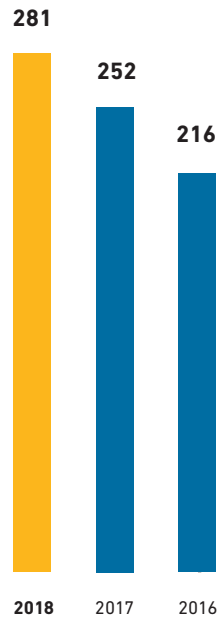
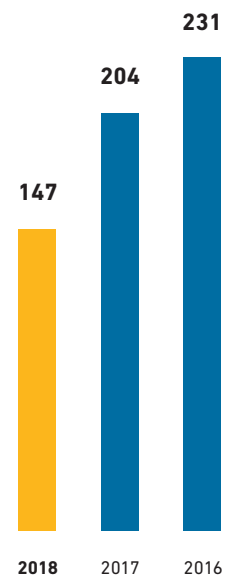
Sales
in CHF million



Key figures

| | Corporation | | GF Piping Systems | | GF Casting Solutions | | GF Machining Solutions | |
|---|-------------|--------|-------------------|-------|----------------------|-------|------------------------|-------|
| | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 | 2018 | 2017 |
| CHF million | | | | | | | | |
| Order intake | 4'521 | 4'274 | 1'865 | 1'718 | 1'617 | 1'527 | 1'042 | 1'030 |
| Sales | 4'572 | 4'150 | 1'821 | 1'678 | 1'687 | 1'482 | 1'066 | 992 |
| Sales growth % | 10.2 | 10.8 | 8.5 | 12.3 | 13.8 | 11.0 | 7.5 | 8.3 |
| Organic growth % | 6.5 | 9.8 | 8.2 | 12.1 | 5.2 | 8.9 | 5.4 | 7.4 |
| EBITDA | 529 | 491 | 269 | 245 | 160 | 158 | 102 | 96 |
| EBIT | 382 | 352 | 217 | 189 | 86 | 93 | 88 | 82 |
| Net profit after minorities | 281 | 252 | | | | | | |
| Free cash flow before acquisitions/divestitures | 147 | 204 | | | | | | |
| Return on sales (EBIT margin) % | 8.4 | 8.5 | 11.9 | 11.3 | 5.1 | 6.3 | 8.3 | 8.3 |
| Invested capital (IC) | 1'494 | 1'466 | 688 | 671 | 531 | 481 | 262 | 269 |
| Return on invested capital (ROIC) % | 22.4 | 20.3 | 27.2 | 22.9 | 16.1 | 19.5 | 27.5 | 24.1 |
| Number of employees | 15'027 | 15'835 | 6'852 | 6'764 | 4'693 | 5'738 | 3'394 | 3'255 |

EBIT
in CHF million

Net profit after minorities
in CHF million

Free cash flow before acquisitions/divestitures
in CHF million


Letter to the shareholders

Successful year, major strategic transformation

Dear shareholders,

GF grew again double-digit in 2018 to reach CHF 4'572 million. Free of acquisitions, divestments and currency effects, growth amounted to 7%, well above the 2020 strategy objectives of 3–5% per annum.

The main pillar of organic growth has been GF Piping Systems, recording a high 8% organic growth rate for our largest division. The Corporation increased sales in all three regions Europe, Asia and America with America growing the most. After a very strong first semester, markets were affected during the second half-year by the ongoing trade tensions, which led to a softening of the GF growth rate.

The operational result (EBIT) increased by 9% to CHF 382 million. Both GF Piping Systems and GF Machining Solutions are the drivers of this increase.

The return on sales (ROS) stood at 8.4%, (2017: 8.5%), well in line with our 8–9% objective range. The return on invested capital (ROIC) further increased to 22.4%, compared to 20.3% in 2017, marginally surpassing our 18–22% objective range. The number of employees at year end decreased to 15'027, compared to 15'835 per end of 2017 as a consequence of the divestments of two iron foundries at GF Casting Solutions, whereas the acquisition of Precicast Industrial Holding SA (Switzerland) in April 2018 added 812 employees to the Corporation.

GF achieved a net profit after minorities of CHF 281 million, an increase of 12% compared to 2017 and a free cash flow before acquisitions of CHF 147 million (previous year CHF 204 million), basically at the lower end of GF's target range of CHF 150–200 million. The main difference with previous year comes from future-oriented investments, namely the new production facility of GF Machining Solutions in

Switzerland and the new US light metal foundry of GF Casting Solutions.

Earnings per share reached CHF 69, compared to CHF 62 in 2017. In view of the positive financial development in 2018, the Board of Directors will propose at the upcoming Annual Shareholders' Meeting an increased dividend of CHF 25 a share, up from CHF 23 in the previous year.

GF Piping Systems

GF Piping Systems increased its sales by 9% to CHF 1'821 million. Organically the division grew by 8%. In 2018, the American and European operations of GF Piping Systems were the main growth contributors, whereas growth was muted in China as the ongoing trade disputes affected customer sentiment. The division generated an EBIT of CHF 217 million, 15% above previous year. The EBIT margin reached 11.9%, compared to 11.3% in 2017, as most plants were well-loaded and the sales of high-value products increased again over-proportionally.

GF Casting Solutions

GF Casting Solutions (formerly GF Automotive) also increased its sales in a significant manner to CHF 1'687 million, up 14%. The major growth drivers were the acquisitions of Precicast Industrial Holding SA (Switzerland) in April 2018 and of Eucasting Ro SRL (Romania) in November 2017. Organic growth stood at 5%. After a solid first half-year, the automotive industry in Europe



Yves Serra, President and CEO (left), and Andreas Koopmann, Chairman of the Board of Directors, at GF Machining Solutions in Beijing (China).

suffered during the second half from new emission registration rules leading main car manufacturers to temporarily reduce production. The division's operating result stood at CHF 86 million, compared to CHF 93 million in 2017. On one hand, the ramp-up of the new light metal foundry in the US had, as expected, a strong negative impact on profit and on the other hand, plant load suffered at year end from the reduction of customer call-offs.

GF Machining Solutions

Order intake at GF Machining Solutions was slightly above the previous year with America showing a strong growth whereas the Chinese market became softer during the second half year as trade frictions affected customer sentiment. The division increased sales by 8% to CHF 1'066 million, organically +5%. The main drivers for the sales increase have been the aerospace and medical industries in Europe and the US. The operating result increased by 7% to CHF 88 million, resulting in an unchanged ROS of 8.3%.

Portfolio actively reshaped towards higher value businesses

During 2018, the portfolio of GF Casting Solutions has been reshaped to intensify the focus on growing and promising fields such as light metal components for the automotive industry and precision castings for aircraft engines and gas turbines. Accordingly, the two large iron casting plants in Singen and Mettmann (Germany)

have been divested in December to three experienced managers of GF Casting Solutions.

Furthermore, in April 2018, GF acquired Precicast Industrial Holding SA (Switzerland), a well-known precision castings specialist for the aerospace and gas turbine sectors. These two important strategic steps aim at generating a clearly higher profit margin at GF Casting Solutions. They also lead to a substantial reduction in the GF Corporation's exposure to the automotive industry.

Outlook

Macroeconomic conditions have become even more uncertain and volatile during the last few months. Chances are however intact, barring unforeseen circumstances, to pursue our positive development.

At GF Piping Systems, a high number of new products are being launched such as a whole line of digital valves whilst promising market segments are being developed, like the cooling of data centers. GF Casting Solutions expects a clearly improved operating performance. The division begins the year with a reshaped portfolio and a large amount of orders worldwide. In addition, its new light metal joint-venture, GF Linamar, in the US is rapidly increasing production. GF Machining Solutions expects a steady growth in the aerospace and medical sectors. Automation orders keep growing and the division recently launched new technologies such as promising 3D printing systems and digital services.



Moreover, the weight of the most profitable division, GF Piping Systems within the Corporation has continued to significantly increase to almost 50% of total sales.

For GF overall, the 2020 Strategy growth objectives remain unchanged at 3–5%. Regarding profitability, reinforced through the portfolio reshaping of GF Casting Solutions, the objectives for the current 2016–2020 strategy have been increased to 9–10% (from 8–9%) for the ROS and 20–24% (from 18–22%) for the ROIC.

Vice-Chairman Gerold Bühner to retire from the GF Board

In December 2018, we announced that our Vice-Chairman Gerold Bühner will retire from our Board at the next Annual Shareholders' Meeting in April, having reached the age limit of 70. In the Board for the last 18 years, Gerold Bühner has been a long-standing member of our Audit Committee, combining his intimate understanding of GF where he had worked from 1991 to 2000 as CFO with his extensive knowledge of the national and international economic and political landscape. We wish Gerold Bühner all the best in his future endeavors and thank him again for his countless very valuable contributions he made to our company.

CFO Andreas Müller to succeed Yves Serra as CEO in April 2019

After 27 years at the service of GF, the last eleven as our CEO, Yves Serra (65) will retire in April 2019 and will be succeeded by the current CFO Andreas Müller (48). Yves Serra will be proposed for election to our Board at the upcoming Annual Shareholders' Meeting of 17 April 2019.

The Board of Directors nominated Mads Joergensen as new CFO, effective 18 April 2019. Since 2009, he has served as CFO of GF Piping Systems.

Carlos Vasto succeeds Josef Edbauer as Head of GF Casting Solutions

On 1 September 2018, Carlos Vasto (55) became Head of GF Casting Solutions. He replaced Josef Edbauer (61) who went into retirement after a long and successful career at GF. The Board and Executive Committee thank very much Josef Edbauer for his 40 years' commitment to GF and wish him the best of health in this new chapter in his life.

Grateful thanks to our employees and customers

Our heartfelt gratitude goes to all GF employees whose remarkable team spirit allows us to better serve our clients across borders. Our innovation initiatives depend very much on listening to and quickly acting upon our customer needs. May we therefore equally thank our customers for their openness in sharing their needs.

We also thank you, our shareholders, for your continuing trust, and our banks for their long-standing support for our company.



Andreas Koopmann
Chairman of the
Board of Directors



Yves Serra
President and CEO

The Board of Directors would like to thank Yves Serra, our outgoing CEO for his important contributions to GF in various operational positions during his long career in our company since 1991. In particular since 2008, when he took over the highest executive function in the Group as CEO, he has, with his teams, successfully led the company through deep transformations. GF has, during his tenure as CEO, experienced one of the longest periods of profitable growth in its history.

The Board of Directors looks forward, subject to his election by our shareholders, to a fruitful cooperation with Yves Serra as a Board member in the years to come.



Andreas Koopmann
Chairman of the
Board of Directors

GF Executive Committee

Strategy 2020 well on track

The implementation of Strategy 2020 is on course. Key elements are the expansion in growth markets, increasing sales proficiency and innovation excellence as well as the portfolio shift to higher value businesses. This includes the manufacture of light-metal components for conventional and electric vehicles. GF Casting Solutions produces such parts in Altenmarkt (Austria), one of the division's most modern production plants.

“Chances are intact, barring unforeseen circumstances, to pursue our positive development.”

Yves Serra, CEO



The five members of the GF Executive Committee at the plant in Altenmarkt (Austria) in front of a vehicle model with lightweight parts exclusively from GF Casting Solutions. All components are manufactured on site. F.l.t.r.: Carlos Vasto (Head of GF Casting Solutions), Yves Serra (CEO), Pascal Boillat (Head of GF Machining Solutions), Andreas Müller (CFO) and Joost Geginat (Head of GF Piping Systems).

Highlights 2018

A successful year

01/18



Strengthening presence in promising aerospace business

In January 2018, GF Casting Solutions purchased 100% of Precicast Industrial Holding SA, the Swiss-based precision casting specialist. This is in line with the division's strategy to increase its industrial sectors presence, in particular in the promising aerospace field. Upon closing in April, the division was renamed from GF Automotive to GF Casting Solutions, which reflects the portfolio evolution.

03/18

Klostergut: A property for 100 years

GF has owned the listed convent Klostergut Paradies in Schlatt (Switzerland) since 1918. Today, it serves as training center for the Corporation. In 2018, GF organized a range of activities and the exhibition "100 years of GF at Klostergut Paradies" to celebrate the 100th anniversary.



05/18

GF invests more than CHF 20 million in Schaffhausen

In May 2018, the complete refurbishment of the headquarters of GF Piping Systems in Schaffhausen (Switzerland) has started. Over an area of 3'000 square meters, the project will give rise to innovative offices with team, co-working and project rooms, a spacious laboratory and a new training center with attractive training and exhibition rooms. Energy efficiency measures and a new photovoltaic system will bring the building up to the Minergie standard in the future. With the modernization project costing more than CHF 20 million, which is due to be completed by the end of 2019, GF is equipping itself for the future, with digitalization and agile working concepts remaining key focal points.



07/18

For a sustainable company development

It is of great importance for GF to reduce the accident rate. Most recently, this rate has been reduced company-wide from 25 to 15.9 per one million working hours. The company is thus well on track in achieving the stated sustainability target for 2020. The target focuses on achieving a 20% reduction in the accident rate compared with the average rate between 2013 and 2015. Further sustainability goals, indicators and efforts are extensively described in the GF Sustainability Report that was published in July 2018.

09/18



New Head of GF Casting Solutions

Carlos Vasto took over as the Head of GF Casting Solutions on 1 September 2018. The Brazilian-Italian dual citizen stepped into the shoes of Josef Edbauer, who retired at the end of 2018 after working at GF for more than 40 years. Carlos Vasto has been with GF since 1987 and has extensive international experience in the automotive and the mechanical engineering sector. Most recently, he led the division's Business Unit "Iron and Investment Casting Europe".

11/18



Modern plant of GF Machining Solutions in China

GF Machining Solutions will open a new plant in the high-tech district in the ultra-modern industrial park in Changzhou (China) by the end of November 2019. The groundbreaking ceremony took place in November 2018. The building spans over 32'000 square meters and is primarily intended for the manufacturing and development of machine tools. With the new building, technical innovations will be promoted and the division will acquire leading companies as its customers. Moreover, this project contributes significantly towards the overarching goal of establishing GF Machining Solutions as the world's leading provider for high-quality machine tools.

11/18

GF won large orders in the aerospace sector

In North America, GF Machining Solutions has won a large number of new orders in the strategically important aerospace sector. The new orders include the whole range of Electrical Discharge Machines (EDM), milling and laser machines as well as automation solutions and services for a total value of approx. USD 100 million. The customers, well-known aircraft engine manufacturers and their suppliers, will use the new machines for the highly demanding production of blades, blisks and other complex components to be used in the latest generation of aero engines. The orders are to be delivered in the next four years, starting 2019.

11/18

Record-high orders for the promising e-mobility market

In 2018, GF Casting Solutions received several large contracts to supply lightweight components for a new generation of electric vehicles. The new contracts have been placed by Chinese and European manufacturers and amount to approx. CHF 370 million. The high number of new orders underscores GF Casting Solutions' lightweight competence in the fast growing e-mobility market segment in China. Lightweight design is an important factor in improving the range of electric cars.

12/18



CEO change at GF

The Board of Directors of GF has appointed Andreas Müller as CEO of the Corporation. At the Annual Shareholders' Meeting of 17 April 2019 he will take over from Yves Serra, who has reached the retirement age of 65. Andreas Müller is today CFO and Member of the Executive Committee of GF. Previously, he was CFO of GF Casting Solutions for eight years. Andreas Müller has extensive experience in finance & operations, portfolio management, acquisitions, risk management, IT and strategy. The Board of Directors of GF will propose the election of Yves Serra to the Board at the Annual Shareholders' Meeting.

12/18

Divesting two European iron casting plants

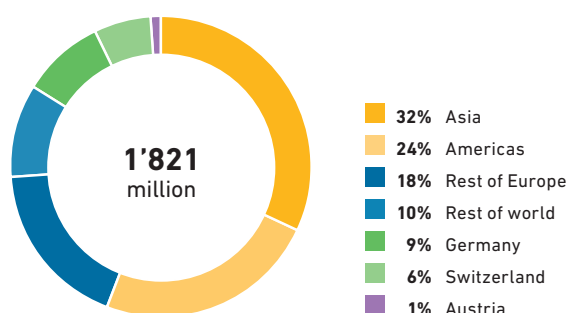
GF Casting Solutions is reducing its presence in iron casting in Europe, in order to achieve a stronger focus on light metal casting. As a consequence, the iron casting plants located in Singen and Mettmann (Germany) have been divested as of December 2018. The reshaping of its portfolio will allow GF Casting Solutions to better leverage opportunities in light vehicle structures and aircraft engine components.

At a glance

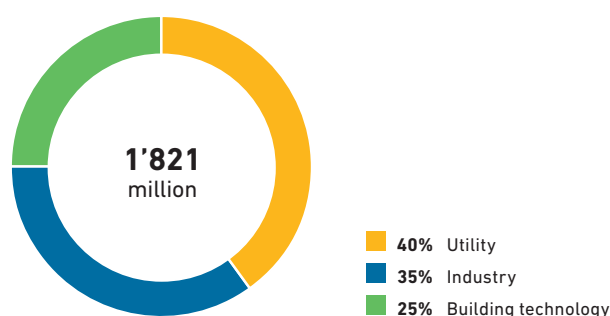
GF Piping Systems

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, chemicals and gases, as well as corresponding services. The product portfolio of fittings, valves, pipes, automation, and jointing technologies covers all applications of the water cycle.

Sales per region in CHF



Sales per segment in CHF



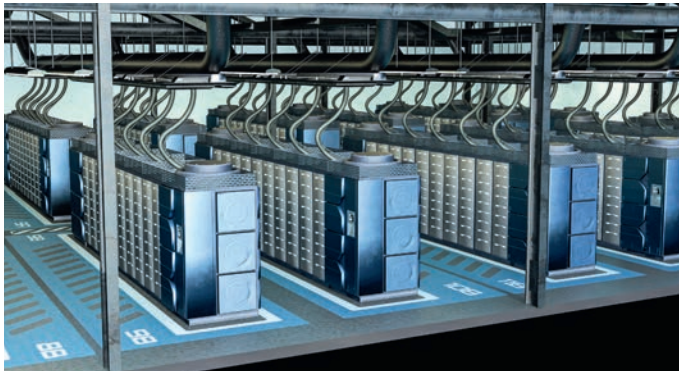
Key figures

| CHF million | 2018 | 2017 |
|-------------------------------------|-------|-------|
| Order intake | 1'865 | 1'718 |
| Sales | 1'821 | 1'678 |
| Sales growth % | 8.5 | 12.3 |
| Organic growth % | 8.2 | 12.1 |
| EBITDA | 269 | 245 |
| EBIT | 217 | 189 |
| Return on sales (EBIT margin) % | 11.9 | 11.3 |
| Invested capital (IC) | 688 | 671 |
| Return on invested capital (ROIC) % | 27.2 | 22.9 |
| Number of employees | 6'852 | 6'764 |

Global presence

GF Piping Systems supports customers in the fields of utility, industry, and building technology in over 100 countries through its own sales companies and representative offices. The division operates several research and development centers as well as more than 30 production sites in Europe, Asia, North and South America.

Strategy 2020 – Milestones



Cooling of data centers offers great market potential

Global providers of cloud-based storage solutions, mobile telephony service providers as well as search engine and social network operators are constantly increasing their systems' capacities – and enhancing their performance. As they invest in these, more is demanded in terms of the security of data and operations. It is essential that efficient and constant cooling of the IT infrastructure is provided, in order to avoid overheating and the interruptions that result from it. GF Piping Systems has been helping companies in keeping their data centers cool for some years now. The system solution COOL-FIT 4.0 was rolled out in 2018. It ensures that GF Piping Systems continues to meet the highest process security standards, and enables its customers to use energy more efficiently while reducing their maintenance and operating costs. Therefore, the division has good prospects of being able to succeed in this promising growth market.



Driving the digitalization of products and applications

A significant milestone was achieved in the digitalization of GF Piping Systems' products: the latest generation of the division's actuators will become smart. These "smart actuators", once connected to the operator's smartphones and tablets, impress with easy handling and data access as well as remote control and diagnosis. Increased efficiency and simplified workflow from installation to maintenance are the effects. The new actuator will be launched in the first half of 2019.



Establishing collaborative working

The way of working these days has changed significantly. Collaboration and interaction are key terms in the modern working world. A shift to project and team spaces instead of individual workplaces helps GF Piping Systems to become more agile and flexible in its way of working. By fall 2019, the division's headquarters in Schaffhausen (Switzerland) will be completely refurbished. Over an area of 3'000 square meters innovative offices with team, co-working and project rooms will be realized which foster collaboration resulting in higher innovational strength.

Success Story

A clever solution

When drinking water is set at the wrong temperature and does not circulate enough in the piping, bacteria reproduce particularly fast. The Hycleen Automation System from GF Piping Systems was developed for exactly this type of situation, and ensures a perfect drinking water quality in hospitals, retirement homes or schools.



The Hycleen Automation System is suitable for new buildings such as the senior and care center Senevita Mülibach (Switzerland). Source: Senevita AG

Arnaud Andreolli, Product Manager for the building technology segment at GF Piping Systems in Sissach (Switzerland), knows the dangers of bacterial contamination in drinking water very well: “Especially elderly people or people with a weak immune system can get more easily infected with legionella and develop illnesses such as severe pneumonia.” Owners or managers of hospitals or large public facilities in countries with particularly strict regulations, for example in Germany, Austria or Switzerland, have therefore increasingly been inquiring about sustainable solutions that ensure safe water supply, reports Andreolli.

Lower energy consumption

GF Piping Systems responded to this demand and developed the Hycleen Automation System in 2018 – the first solution of its kind worldwide.

Based on a four-stage concept, it sustainably reduces bacteria levels in drinking water for single-family houses and residential buildings as well as retirement homes, schools and hospitals. By circulating the water and creating a permanent hydraulic balance across all the pipes, the system ensures a constant high temperature of over 55°C and consequently a virtually sterile environment. This can systematically prevent any excessive formation of legionella bacteria, for which the ideal growth conditions are between 25°C and 50°C. The Hycleen Automation System only allows as much hot water to circulate in the pipes as necessary and in so doing prevents the loss of warmth and energy that would have been necessary to reheat the water. This enables owners or managers of large houses and buildings with multiple connections to save up to 15% in energy consumption.

Ideal for existing and new buildings

In February 2018, the Hycleen Automation System was put into operation for the first time at a customer's premises – in the Erlabrunn clinical center in Germany's Ore Mountains region. Senevita Mülibach, a senior and care center located 15 kilometers northwest of Zurich (Switzerland), demonstrates that the Hycleen Automation System is not only suitable for existing buildings but also for new buildings. Following the completion of the construction work and its inauguration in September 2019, the striking, elliptical building will offer living space for up to 109 senior citizens and people in need of nursing care. 81 nursing rooms and 18 apartments for the elderly with roof gardens, administration offices and infrastructure rooms distributed over four floors provide for an environment that is a pleasure to live in and meets all requirements.

“The Hycleen Automation System is exceeding the expectations of our customers.”

Arnaud Andreolli, Product Manager at GF Piping Systems

Yannik Waeber from the engineering firm Basler & Hofmann West AG based in Zollikofen (Switzerland) was commissioned by the client Senevita to lead the technical planning of the building technology in the Mülibach center. He was aware right from the start of the planning phase that special measures were needed for older people in the new residential and care center, i.e. to control the water temperature and prevent germs from building up in the hot water. Yannik Waeber was already familiar with the GF Piping Systems building technology product range, including from a previous renovation of a senior citizens' home. “During discussions with the Swiss sales company of GF Piping Systems, I was made aware of the Hycleen Automation System that had just been launched on the market at the beginning of 2018,” recalls Waeber. “It was well suited to our needs because the circulation system with automatic adjustment capabilities ensures the best hygienic conditions in the long term and reduces the risk of germs forming.”

It took only two weeks for the system to be delivered after being ordered, and the technician had assembled and connected the Hycleen Automation System within a few days after this – which involved a total of 260 meters of cable,



Arnaud Andreolli is Product Manager for the building technology segment at GF Piping Systems in Sissach (Switzerland).

19 adapters, 18 valves and 1 system master with control screen. As with the Erlabrunn clinical center, the installation in Mülibach was quick and uncomplicated. The extent to which the Hycleen Automation System can reduce energy costs for water heating will become apparent after the first year of operation. Yannik Waeber and the center operator Senevita are hoping for considerable savings.

Tapping into new markets

Product Manager Arnaud Andreolli is satisfied with the current level of demand being shown for the Hycleen Automation System. “By the end of 2018, we will have installed the system in 33 buildings – with many more orders in the pipeline.” He concludes that the Hycleen Automation System is even exceeding expectations at the moment. “The feedback collected by our sales companies has shown that customers recognize and appreciate the added value provided by GF's Hycleen.”

In addition to Germany and Turkey, the division also has plans to expand into the markets of Switzerland, Austria, Norway, Sweden, Finland, Denmark, France, Italy, Spain, Australia, India and the USA.

Low effort, big impact

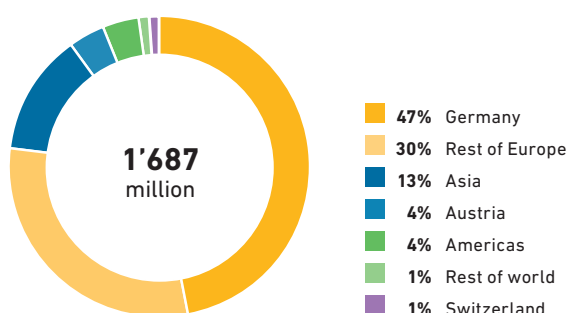
The energy-conscious Hycleen Automation System from the Hycleen product range ensures improved hygiene standards for drinking water in public and private buildings. A unique system master with a control screen and easy-to-operate software manages up to 50 connected valves, sensors and applications.

At a glance

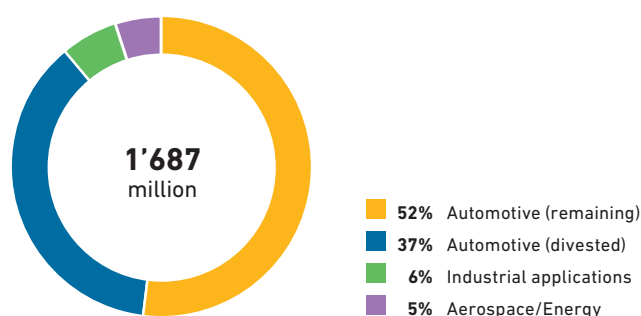
GF Casting Solutions

GF Casting Solutions is a technologically pioneering development partner and manufacturer of cast components and systems for the global automotive industry, aerospace and energy markets, off-highway vehicles as well as for industrial applications. The highly complex lightweight components are produced using different manufacturing technologies – from the development to the ready-to-mount solution.

Sales per region in CHF



Sales per segment in CHF



Key figures

| CHF million | 2018 | 2017 |
|-------------------------------------|-------|-------|
| Order intake | 1'617 | 1'527 |
| Sales | 1'687 | 1'482 |
| Sales growth % | 13.8 | 11.0 |
| Organic growth % | 5.2 | 8.9 |
| EBITDA | 160 | 158 |
| EBIT | 86 | 93 |
| Return on sales (EBIT margin) % | 5.1 | 6.3 |
| Invested capital (IC) | 531 | 481 |
| Return on invested capital (ROIC) % | 16.1 | 19.5 |
| Number of employees | 4'693 | 5'738 |

Global presence

GF Casting Solutions manufactures at 14 production sites in Germany, Austria, Romania, Switzerland, China and the USA. The research and development centers with globally recognized lightweight and bionic design expertise are located in Schaffhausen (Switzerland) and Suzhou (China).

Strategy 2020 – Milestones

Investing in the promising aerospace business

In 2018, the division acquired Precicast Industrial Holding SA in Novazzano (Switzerland). With the acquired precision casting plants in Novazzano and Arad (Romania), GF Casting Solutions successfully enters the promising aerospace market and the energy segment. In addition, the Precicast 3D metal printing unit in Stabio (Switzerland) also contributes to profitability: it offers prototype and serial production of highly complex components for Formula 1 and applications in the aerospace industry.



Portfolio reshaping towards more resilience

While the automotive industry is rethinking and reinventing itself, GF Casting Solutions is a solution provider for components for alternative powertrains, light body and structure parts in great demand. Among the latest innovations are light and safe housings for batteries and electric engines as well as structural parts made of magnesium or aluminum – these are state of the art. In this context, GF Casting Solutions will have a stronger focus on light metal casting whilst reducing its presence in iron casting in Europe. Consequently, the iron casting plants located in Singen and Mettmann (Germany) have been divested to three former members of the management of GF Casting Solutions, effective retroactively as of 1 December 2018. This portfolio reshaping and the resulting regional footprint adaptation are fully in line with the Strategy 2020 of GF. Moreover, since 2018 GF has been producing lightweight components in its new light metal die-casting plant in Mills River (USA) for the strategically important automotive market in North America.

Success Story

“We believe in continuous growth opportunities”

Doosan Heavy Industries (DHI) is a leading manufacturer of power generation equipment. In 2020, this South Korean company will bring its first own designed gas turbine to market. GF Precicast, part of GF Casting Solutions, is DHI's strategic partner, equipping the turbine with heat-resistant precision-casting parts.



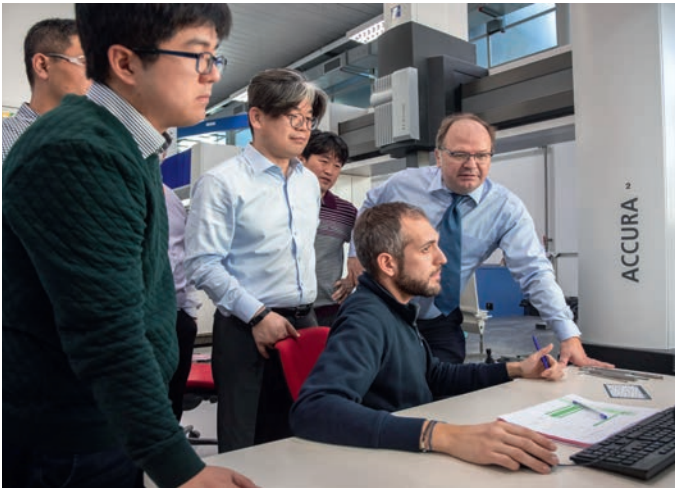
DHI and GF Precicast worked together very closely to make the precision-casting airfoils development more efficient and faster.

In recent decades, global electricity consumption has risen steadily. The reason for this is unabated and ongoing economic growth, particularly in growing markets such as China, Russia and India. In order to meet the rising demand for electricity, many countries are promoting the operation of gas power plants. Doosan Heavy Industries (DHI) in Changwon (South Korea), with annual sales of more than USD 5.7 billion and more than 7'000 employees worldwide in 2017, is one of the world's leading manufacturers of

power generation equipment and systems. The company provides electricity producers in South Korea and abroad with boilers, steam turbines, generators and components for gas turbines.

GF Precicast has many years of experience in precision casting

Gas turbine power plants are the most commonly used alternative to coal and nuclear power generation and as backup power plants are a perfect complementary to renewable energy production.



Jeon Chae Hong (center) visits GF Precicast in Novazzano (Switzerland).

DHI therefore decided – on the basis of its extensive expertise and experience in component manufacturing – to bring a powerful 270-megawatt gas turbine of its own design to the electricity generation market. “This turbine is the result of six years of research and development work,” explains Jeon Chae Hong, Team Leader of the Hot Part Engineering Team and Principal Research Engineer at DHI. GF Precicast has been a partner of DHI since 2017 and has been involved in the development work. It is producing three different precision-casting airfoils for the new DHI turbine. “DHI selected us as their supplier because of our many years of experience in the production of high temperature application precision-casting parts for the gas turbine industry,” explains Daniel Crot, Head of Sales & Marketing at GF Precicast in Novazzano (Switzerland). “Besides DHI we currently supply more than 15 other customers in the gas turbine industry,” according to Crot. These include market leaders such as Siemens, GE Power and Ansaldo Energia.

“GF Precicast has very modern, high tech manufacturing processes. And a good reputation.”

Jeon Chae Hong, Principal Research Engineer at DHI

Jeon Chae Hong is persuaded about the value of the collaborative arrangement: “GF Precicast has very modern, high-tech manufacturing processes. And they have a good reputation in the gas turbine industry. This is why GF Precicast is the right strategic partner for us.”

Since November 2018 GF Precicast is equipping the new DHI gas turbine with three high temperature application turbine airfoils. “In the current market, we estimate that we will sell up to ten gas turbines a year,” says Jeon Chae Hong. “Initially we are focusing on the US and Saudi Arabia markets, currently the two most important markets for industrial gas turbines.” For GF Precicast, ten gas turbines a year means supplying more than 2’000 additional parts per year.

Growth of electricity consumption is pushing up demand for gas turbines

Rising electricity consumption combined with the sustainability challenges and the available natural gas reserves are making gas power plants very relevant for electricity production. “We believe in continuous growth opportunities in the industrial gas turbine business for GF Precicast as the energy produced from gas is still among the most competitive energies,” says Crot. GF Precicast seeks to utilize this potential, he says. “We want to maintain a broad customer base around the world and we want to do all we can to make our customers successful.” From this perspective, DHI and GF Precicast make perfect partners. That can already be seen in the work they have done together so far.

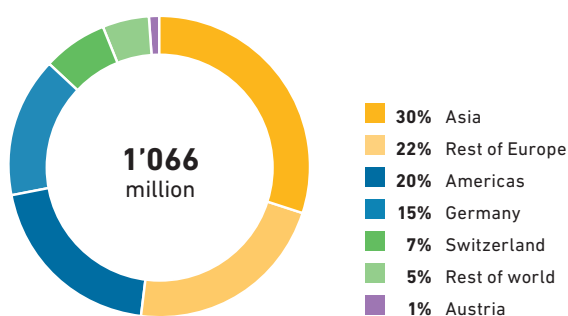
“DHI initially set tight delivery schedules,” recalls Daniel Crot. “Accordingly, DHI’s and our project managers team worked together very closely on a solution to make development of the precision-casting airfoils more efficient and faster,” explains Crot. He places great value on DHI’s willingness to collaborate and is proud of their good working relationship as partners. Jeon Chae Hong readily repays the compliment: “Professionalism, proactive management and state-of-the-art precision casting processes make it easy to deal with challenges that arise.” That applies both to DHI’s new 270-megawatt gas turbine and to even more powerful future developments.

At a glance

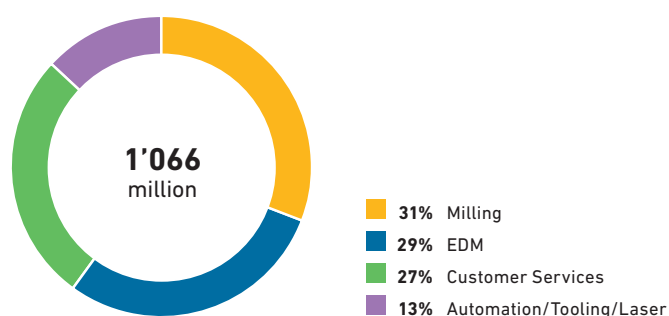
GF Machining Solutions

GF Machining Solutions is one of the world's leading providers of complete solutions to the tool and mold making industry and to manufacturers of precision components. The portfolio includes milling, wire-cutting and die-sinking EDM machines. Moreover, the division offers spindles, laser texturing, additive manufacturing, tooling and automation as well as digitalization solutions and customer services. The key customer segments are the aerospace, ICT, medical and automotive industries.

Sales per region in CHF



Sales per segment in CHF



Key figures

| CHF million | 2018 | 2017 |
|-------------------------------------|-------|-------|
| Order intake | 1'042 | 1'030 |
| Sales | 1'066 | 992 |
| Sales growth % | 7.5 | 8.3 |
| Organic growth % | 5.4 | 7.4 |
| EBITDA | 102 | 96 |
| EBIT | 88 | 82 |
| Return on sales (EBIT margin) % | 8.3 | 8.3 |
| Invested capital (IC) | 262 | 269 |
| Return on invested capital (ROIC) % | 27.5 | 24.1 |
| Number of employees | 3'394 | 3'255 |

Global presence

GF Machining Solutions is present in more than 50 countries with its own sales companies. In addition, the division operates production facilities and research and development centers in Switzerland, the USA, Sweden and China.

Strategy 2020 – Milestones



New strategic partnership in additive manufacturing

In August 2018, GF Machining Solutions announced a strategic partnership with 3D Systems Rock Hill (USA), a leader in additive manufacturing. The goal is to develop integrated manufacturing solutions based on additive manufacturing technology. The partnership combines 3D Systems' expertise in metal additive manufacturing and GF Machining Solutions' conventional metal machining knowledge. The first machine that was developed together – the DMP Factory 500 – was presented in September 2018 on the occasion of the International Manufacturing Technology Show (IMTS) in Chicago (USA).



Creating a modern innovation center

GF Machining Solutions is building a new innovation and production facility in Biel (Switzerland). The milling and laser operations in Switzerland will be concentrated in one state-of-the-art production plant. The three current locations in Nidau, Ipsach and Luterbach will be brought together under the roof of the new building, with approx. 450 workplaces. This lays the ideal foundations for future growth through synergies and streamlined processes. In building a modern R&D center on site, GF Machining Solutions is also preparing for the future. The relocation of the current sites will take place until mid-year 2019 and the official opening is planned in September 2019. The new building was planned with a strong focus on sustainability – it will boast fiberglass insulation exclusively and the waste heat given off by the machines will in turn be used to heat the building.

Success Story

Clean laser technology to replace chemical etching

Custom Etch is the largest laser texturing service provider in North America. The US company processes more than 4'000 molds every year. For eight years, Custom Etch has relied on the time-saving and environmentally-friendly lasers provided by GF Machining Solutions and purchased their seventh GF machine arriving in June 2019.



The engraving and texturing company Custom Etch in New Castle (USA) operates six GF laser machines.

This is an impressive transformation, as in 2011 the employees at Custom Etch were still wearing protective clothing and face masks when using chemical etching to treat molds. Today, the majority of the work processes carried out in New Castle (USA), are handled by state-of-the-art lasers from GF Machining Solutions.

“Thanks to the consistently good order situation, we now have six GF machines running in our plant,” says Donald Melonio, Vice President of Custom Etch. The company processes up to 4'200 individual molds every year. In June 2019, GF will supply an additional LASER P 4000 U machine to Custom Etch, making it the third of its kind to be used in New Castle. Custom Etch intends to use the machine primarily for pro-

cessing large molds for the automotive sector. The new laser machine enables Custom Etch to deal with the numerous texturing orders more quickly. What's more, the company is seeing a further increase in demand: “Our customers have already committed to projects in 2019,” reveals Melonio. In addition to manufacturers of PET bottles, car lighting elements and fiberglass doors, the company has also recently expanded its client base to include American companies from the aerospace and transport sectors.

Much faster and more accurately

Jean-Paul Nicolet from Laser Business Development and Market Support at GF Machining Solutions in Geneva has looked after Custom

Etch since the beginning of the partnership. “Laser technology is completely changing the way engraving and texturing companies work,” Nicolet points out. “Today, production processes – from product design to the finished mold – are fully digitalized and automated. Meanwhile, virtually everything that product designers want can be realized.” In addition, the GF Machining Solutions laser machines process the molds much faster and more accurately than would be possible manually. Donald Melonio confirms that his clients get the finished molds back in half the time that was required before. “The labor costs previously involved in masking, applying patterns and acid etching molds have been significantly reduced.” He adds that the new machines have enabled him to recruit more staff, such as programmers. What makes him particularly happy is the reduction of chemical substances. “Since the introduction of the laser technology, we used 35% less chemical substances last year. We expect to reduce this figure by a further 10% in 2019,” says Melonio. With its six machines, Custom Etch is among GF Machining Solutions’ top five customers in the field of laser texturing. “We carry out 60% of our orders using laser machines. This figure will rise further,” reveals Donald Melonio.

“As we increase our laser processing, acid processing will decrease directly.”

Donald Melonio, Vice President of Custom Etch

Interest in environmentally friendly technologies

Jean-Paul Nicolet also works with other clients in the field of laser texturing. Despite the high investment costs of up to several hundred thousand Swiss francs for each laser machine, he sees a worldwide shift to the modern, more efficient and more environmentally friendly technology. The mold processing company Tian Zhi Zun in Suzhou (China), for example, currently uses four LASER P 4000 U machines and has switched all its production for clients from the automotive, electronics and consumer goods industries from chemical etching to laser technology. “In China, there are sometimes high taxes and levies imposed on procedures involving chemical substances. As a result, there is a great deal of pressure and motivation for change,” says Nicolet. He has also noticed



Jean-Paul Nicolet from Laser Business Development and Market Support at GF Machining Solutions in Geneva (Switzerland).

that many companies are interested in environmentally friendly manufacturing techniques such as laser technology of their own accord. “Especially for production facilities, the topic of sustainability is becoming more and more important.”

It’s just the beginning

Custom Etch discovered laser texturing at the start of 2010, when the company faced a challenge in applying a geometric style texture to PET bottles for Pepsi brands. “This was a very challenging project. We could have achieved the desired result manually by etching, but labor cost and time would have been prohibitive,” Donald Melonio remembers. “Our search led us to the GF Machining Solutions laser technology portfolio, and we purchased our first machine to fulfill the Pepsi order.” Nine years later, Custom Etch hopes to continue moving forward – in terms of both order volumes and the technology used in the plant. “We feel that the texturing industry is just beginning its evolution from previously manual to mainly digital processes. There’s a great deal of potential in doing this,” says Donald Melonio. It is for this reason that he relies on the support of GF Machining Solutions. “We expect to see the continued commitment to improvements from GF that we have experienced in the last eight years.”

Consolidated income statement

| For the years ended 31 December 2018 and 2017, CHF million | 2018 | % | 2017 | % |
|---|--------------|------------|--------|-----|
| Sales | 4'572 | 100 | 4'150 | 100 |
| Other operating income | 56 | | 43 | |
| Income | 4'628 | 101 | 4'193 | 101 |
| Cost of materials and products | -2'255 | | -1'991 | |
| Changes in inventory of unfinished and finished goods | 71 | | 37 | |
| Operating expenses | -776 | | -700 | |
| Gross value added | 1'668 | 36 | 1'539 | 37 |
| Personnel expenses | -1'139 | | -1'048 | |
| Depreciation on tangible fixed assets | -142 | | -131 | |
| Amortization on intangible assets | -5 | | -8 | |
| Operating result (EBIT) | 382 | 8.4 | 352 | 8.5 |
| Interest income | 2 | | 2 | |
| Interest expense | -31 | | -28 | |
| Other financial result | -6 | | -5 | |
| Ordinary result | 347 | 8 | 321 | 8 |
| Non-operating result | 1 | | 1 | |
| Extraordinary result | | | | |
| Profit before taxes | 348 | 8 | 322 | 8 |
| Income taxes | -69 | | -64 | |
| Net profit | 279 | 6 | 258 | 6 |
| - Thereof attributable to shareholders of Georg Fischer Ltd | 281 | | 252 | |
| - Thereof attributable to non-controlling interests | -2 | | 6 | |
| Basic earnings per share in CHF | 69 | | 62 | |
| Diluted earnings per share in CHF | 69 | | 62 | |

The consolidated balance sheet and cash flow statement of the consolidated financial statements of the GF Annual Report are presented in a condensed form. For a complete presentation in accordance with the current guidelines according to Swiss GAAP FER, please refer to the full version of the consolidated financial statements, which are available online.

Consolidated balance sheet

| As of 31 December 2018 and 2017 (condensed), CHF million | 2018 | % | 2017 | % |
|--|--------------|------------|-------|-----|
| Cash and cash equivalents and marketable securities | 542 | | 633 | |
| Trade accounts receivable | 697 | | 754 | |
| Inventories | 779 | | 773 | |
| Other current assets | 110 | | 117 | |
| Current assets | 2'128 | 62 | 2'277 | 63 |
| Property, plant, and equipment and investment properties | 1'130 | | 1'206 | |
| Other non-current assets | 186 | | 127 | |
| Non-current assets | 1'316 | 38 | 1'333 | 37 |
| Assets | 3'444 | 100 | 3'610 | 100 |
| Trade accounts payable | 498 | | 593 | |
| Interest-bearing financial liabilities | 148 | | 325 | |
| Provisions | 38 | | 45 | |
| Other current liabilities and accruals | 440 | | 455 | |
| Current liabilities | 1'124 | 33 | 1'418 | 39 |
| Interest-bearing financial liabilities | 632 | | 491 | |
| Pension benefit obligations | 47 | | 127 | |
| Provisions | 111 | | 120 | |
| Other non-current liabilities | 102 | | 85 | |
| Non-current liabilities | 892 | 26 | 823 | 23 |
| Liabilities | 2'016 | 59 | 2'241 | 62 |
| Equity attributable to shareholders of Georg Fischer Ltd | 1'382 | 40 | 1'317 | 37 |
| Non-controlling interests | 46 | 1 | 52 | 1 |
| Equity | 1'428 | 41 | 1'369 | 38 |
| Liabilities and equity | 3'444 | 100 | 3'610 | 100 |

Consolidated cash flow statement

| For the years ended 31 December 2018 and 2017 (condensed), CHF million | 2018 | 2017 |
|--|-------------|------|
| Net profit | 279 | 258 |
| Depreciation and non-cash income/expenses | 269 | 262 |
| Use of provisions | -27 | -22 |
| Changes in net working capital | -77 | -30 |
| Changes in other receivables/liabilities and accruals | 32 | 24 |
| Interest and income taxes paid | -79 | -82 |
| Cash flow from operating activities | 397 | 410 |
| Cash flow from investing activities | -404 | -280 |
| Free cash flow before acquisitions/divestitures | 147 | 204 |
| Free cash flow | -7 | 130 |
| Cash flow from financing activities | -65 | -80 |
| Net cash flow | -91 | 53 |

Income statement

| For the years ended 31 December 2018 and 2017, CHF 1'000 | 2018 | 2017 |
|---|----------------|---------|
| Dividend income | 155'731 | 126'581 |
| Income from services provided to Corporate Companies | 67'407 | 62'360 |
| Financial income | 7'280 | 23'695 |
| Commission income from Corporate Companies | 11'167 | 12'118 |
| Other income | 2'945 | 2'087 |
| Income | 244'530 | 226'841 |
| Value adjustment on investments | 20'000 | 30'000 |
| Other expenses for investments | 2'128 | 2'207 |
| Financial expenses | 13'378 | 1'531 |
| Cost of services provided by Corporate Companies | 2'239 | 2'241 |
| Personnel expenses | 20'619 | 20'661 |
| Other operating expenses | 16'452 | 15'835 |
| Direct taxes | 5'346 | 9'707 |
| Expenses | 80'162 | 82'182 |
| Net profit for the year | 164'368 | 144'659 |

Balance sheet

| As of 31 December 2018 and 2017, CHF 1'000 | 2018 | 2017 |
|---|------------------|------------------|
| Cash and cash equivalents and short-term investments with a quoted market price | 157'050 | 181'508 |
| Other current receivables due from third parties | 1'804 | 3'605 |
| Other current receivables due from Corporate Companies | 19'785 | 24'697 |
| Accrued income and prepaid expenses | 2'147 | 5'257 |
| Current assets | 180'786 | 215'067 |
| Loans to Corporate Companies | 246'944 | 129'823 |
| Other financial assets | 8'148 | 1'899 |
| Investments | 1'278'312 | 1'111'485 |
| Equipment | 132 | |
| Non-current assets | 1'533'536 | 1'243'207 |
| Assets | 1'714'322 | 1'458'274 |
| Current liabilities with third parties | 12'982 | 12'066 |
| Short-term interest-bearing liabilities due to Corporate Companies | 123'659 | 124'386 |
| Accrued expenses and deferred income | 11'137 | 27'196 |
| Current liabilities | 147'778 | 163'648 |
| Long-term interest-bearing liabilities | 206'048 | 3'790 |
| Long-term provisions | 24'218 | 24'114 |
| Non-current liabilities | 230'266 | 27'904 |
| Liabilities | 378'044 | 191'552 |
| Share capital | 4'101 | 4'101 |
| Legal capital reserves | | |
| – Other capital reserves | 89'506 | 89'506 |
| Legal reserves | | |
| – Other legal reserves | 59'234 | 59'234 |
| Statutory retained earnings | | |
| – Available earnings carried forward | 1'027'762 | 977'007 |
| – Net profit for the year | 164'368 | 144'659 |
| Treasury Shares | –8'693 | –7'785 |
| Equity | 1'336'278 | 1'266'722 |
| Liabilities and equity | 1'714'322 | 1'458'274 |

Proposal by the Board of Directors

| Proposal by the Board of Directors for the appropriation of the retained earnings 2018, CHF 1'000 | 2018 | 2017 |
|--|------------------|------------------|
| Net profit for the year | 164'368 | 144'659 |
| Earnings carried forward | 1'027'428 | 966'399 |
| Allocation to/reduction in reserves for treasury shares | | 10'355 |
| Profit from treasury shares | 334 | 253 |
| Retained earnings | 1'192'130 | 1'121'666 |
| Dividend payment CHF 25 per registered share ¹ | -102'522 | -94'321 |
| To be carried forward | 1'089'608 | 1'027'345 |

1 No distribution will be made for treasury shares held by Georg Fischer Ltd. The amount distributed will be reduced accordingly at the time of distribution.

The Board of Directors will propose to the Annual Shareholders' Meeting of 17 April 2019 to pay out a dividend of CHF 25 per registered share out of retained earnings.

In the previous year, a dividend of CHF 23 per registered share out of retained earnings was paid out according to the decision of the Annual Shareholders' Meeting of 18 April 2018.

Schaffhausen, 21 February 2019

For the Board of Directors
The Chairman



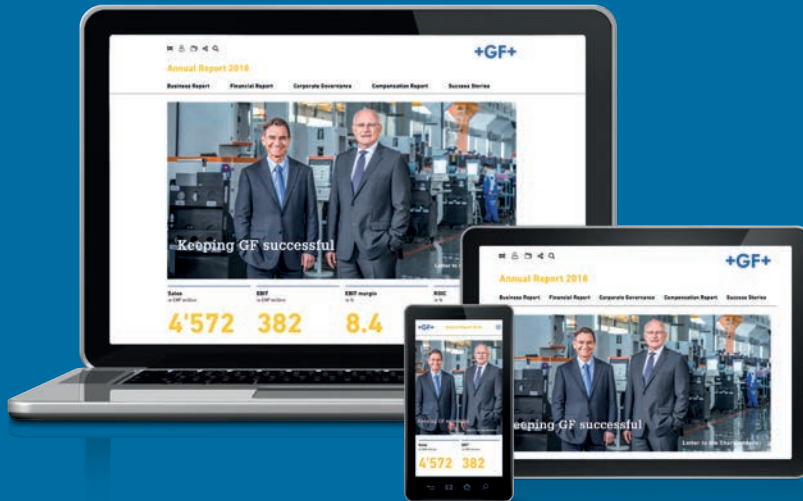
Andreas Koopmann

Five-year overview of the Corporation

| CHF million | 2018 | 2017 | 2016 | 2015 | 2014 |
|--|--------|--------|--------|--------|--------|
| Order intake | 4'521 | 4'274 | 3'749 | 3'662 | 3'836 |
| Orders on hand at year-end | 623 | 773 | 614 | 612 | 634 |
| Income statement | | | | | |
| Sales | 4'572 | 4'150 | 3'744 | 3'640 | 3'795 |
| EBITDA | 529 | 491 | 443 | 422 | 399 |
| Operating result (EBIT) | 382 | 352 | 311 | 296 | 274 |
| Net profit/loss after minorities | 281 | 252 | 216 | 188 | 184 |
| Cash flow | | | | | |
| Cash flow from operating activities | 397 | 410 | 400 | 328 | 248 |
| Cash flow from investing activities | -404 | -280 | -265 | -140 | -158 |
| Free cash flow before acquisitions/divestitures | 147 | 204 | 231 | 190 | 110 |
| Free cash flow | -7 | 130 | 135 | 188 | 90 |
| Balance sheet | | | | | |
| Assets | 3'444 | 3'610 | 3'202 | 3'083 | 2'989 |
| Liabilities | 2'016 | 2'241 | 2'002 | 1'953 | 1'885 |
| Equity | 1'428 | 1'369 | 1'200 | 1'130 | 1'104 |
| Net working capital | 926 | 899 | 838 | 819 | 864 |
| Invested capital (IC) | 1'494 | 1'466 | 1'333 | 1'279 | 1'354 |
| Net debt | 238 | 183 | 214 | 238 | 354 |
| Key figures | | | | | |
| Return on equity (ROE) % | 19.9 | 20.1 | 19.3 | 17.7 | 18.7 |
| Return on invested capital (ROIC) % | 22.4 | 20.3 | 19.3 | 18.9 | 17.9 |
| Return on sales (EBIT margin) % | 8.4 | 8.5 | 8.3 | 8.1 | 7.2 |
| Asset turnover | 3.1 | 3.0 | 2.9 | 2.8 | 2.9 |
| Cash flow from operating activities in % of sales | 8.7 | 9.9 | 10.7 | 9.0 | 6.5 |
| Employees | | | | | |
| Employees at year-end | 15'027 | 15'835 | 14'808 | 14'424 | 14'140 |
| Europe | 8'721 | 9'658 | 8'845 | 8'783 | 8'676 |
| Asia | 3'725 | 3'807 | 3'713 | 3'502 | 3'455 |
| Americas | 1'740 | 1'503 | 1'348 | 1'262 | 1'259 |
| Rest of world | 841 | 867 | 902 | 877 | 750 |

Online Annual Report 2018

Find out more about financial figures, information on GF's strategy and business segments at www.annualreport.georgfischer.com/2018/en



Important dates

2019

17 April

Shareholders'
Meeting for fiscal
year 2018

2019

18 July

Publication of
Mid-Year Report
2019

Contacts

Investor Relations

Daniel Bösigler

Phone: +41 (0) 52 631 21 12

daniel.boesiger@georgfischer.com

Corporate Communications

Beat Römer

Phone: +41 (0) 52 631 26 77

beat.roemer@georgfischer.com

Georg Fischer Ltd

Amsler-Laffon-Strasse 9

8201 Schaffhausen

Switzerland

Phone: +41 (0) 52 631 11 11

www.georgfischer.com

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Disclaimer

The statements in this publication relating to matters that are not historical facts are forward-looking statements that are not guarantees of future performance and involve risks, uncertainties, and other factors beyond the control of the company.

The Financial Report 2018 of GF is also available in German. In the event of any discrepancy, the English version shall prevail.

We thank our customers for their consent to publish the joint success stories.

+GF+

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