

Annual Report 2017 Short version

Driving John Street Str

+GF+

GF at a glance

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 34 countries with 136 companies, 57 of them production facilities. Its 15'835 employees generated sales of CHF 4'150 million in 2017. GF is the preferred partner of its customers for the safe transport of liquids and gases, lightweight casting components, and high-precision manufacturing technologies.



Key figures

| | Corporation | | GF Piping | GF Piping Systems | | GF Automotive | | Solutions |
|---|-------------|--------|-----------|-------------------|-------|---------------|-------|-----------|
| CHF million | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 | 2017 | 2016 |
| Order intake | 4'274 | 3'749 | 1'718 | 1'488 | 1'527 | 1'346 | 1'030 | 917 |
| Sales | 4'150 | 3'744 | 1'678 | 1'494 | 1'482 | 1'335 | 992 | 916 |
| Sales growth % | 10.8 | 2.9 | 12.3 | 5.4 | 11.0 | 1.1 | 8.3 | 1.6 |
| Organic growth % | 9.8 | 1.8 | 12.1 | 5.0 | 8.9 | -0.3 | 7.4 | -0.3 |
| EBITDA | 491 | 443 | 245 | 214 | 158 | 161 | 96 | 77 |
| EBIT | 352 | 311 | 189 | 162 | 93 | 100 | 82 | 62 |
| Net profit | 258 | 225 | | | | | | |
| Free cash flow before acquisitions/divestitures | 204 | 231 | | | | | | |
| Return on sales (EBIT margin) % | 8.5 | 8.3 | 11.3 | 10.8 | 6.3 | 7.5 | 8.3 | 6.8 |
| Invested capital (IC) | 1'466 | 1'333 | 671 | 669 | 481 | 397 | 269 | 261 |
| Return on invested capital (ROIC) % | 20.3 | 19.3 | 22.9 | 20.6 | 19.5 | 23.1 | 24.1 | 18.3 |
| Number of employees | 15'835 | 14'808 | 6'764 | 6'507 | 5'738 | 5'047 | 3'255 | 3'102 |

EBIT





Net profit in CHF million



Free cash flow before acquisitions/divestitures in CHF million



Growth well above target

Dear shareholders,

GF grew substantially in all regions in 2017 with China showing the highest rates of growth and overall sales reached CHF 4'150 million, an 11% increase. Free of acquisitions and currency effects, growth reached the 10% mark, well over the 2020 strategy objective of 3–5% per annum. All three divisions did contribute in a significant manner, GF Piping Systems the most.

The operating result (EBIT) reached CHF 352 million, for a return on sales (ROS) of 8.5% against 8.3% in 2016 and the return on invested capital stood at 20.3%, up from 19.3% in 2016. The increase of profitability was attributable to GF Piping Systems and GF Machining Solutions.

The number of employees increased by 7% to 15'835 against 14'808 in 2016, mainly as a result of the acquisitions done during the course of the year.

GF achieved a net result of CHF 258 million, a 15% increase to previous year and net cash flow before acquisitions stood at CHF 204 million well in line with the company's objective range of CHF 150–200 million a year. Earnings per share reached CHF 62 against CHF 53 for 2016.

"Earnings per share reached CHF 62 up 17% from CHF 53 in the previous year."

In view of the positive financial developments in 2017, the Board of Directors will propose at the upcoming shareholders' meeting an increased dividend of CHF 23 a share, up from CHF 20 in the previous year.

GF Piping Systems

GF Piping Systems grew its sales by 12% to CHF 1'678 million, supported by a strong demand across all market segments and geographies. Organic growth stood also at the 12% level. The division generated an operating result of CHF 189 million, 17% more than in the previous year, as most plants were wellloaded and the higher share of high-value products contributed to a rise in margins.

In July, GF Piping Systems acquired Urecon Ltd., Quebec (Canada), a specialist of pre-insulated pipes for freeze control, with the intention to also use the company as a springboard in North America for its pre-insulated cooling pipes offering.

GF Automotive

GF Automotive sales amounted to CHF 1'482 million, an 11% increase on the back of a sustained demand for both its light metal castings for cars and its iron castings for trucks. Organic growth itself was 9% as the Euro strongly appreciated during the second half-year. One has to note that approx. 3% of the growth came from passing on raw material hikes to customers.

Since raw material prices steadily increased during the whole year and price adaptations for components are done with a delay of two to three months, the impact on the operating result was in fact negative. Operating costs were up owing to the installation of a new light metal plant in the US and the ramping-up of the new iron castings line in Singen (Germany).



Yves Serra, President and CEO (left), and Andreas Koopmann, Chairman of the Board of Directors, at the headquarters in Schaffhausen (Switzerland)

As a consequence of the above-mentioned factors, the operating result stood at CHF 93 million against CHF 100 million in 2016.

GF Automotive acquired in November 2017 Eucasting Ro SRL, based in Pitesti (Romania), a successful light metal foundry generating more than CHF 50 million in annual sales. The aim is to better serve its customers in Eastern Europe, a fast-growing region for the car industry. In the US, the new light metal casting plant of Mills River, North Carolina, has been inaugurated in October and will start production as of mid-2018 with an already very high order intake.

GF Machining Solutions

GF Machining Solutions had a successful run in 2017, increasing its order intake by more than 12% to CHF 1'030 million and generating sales of CHF 992 million, an increase of 8%. Organic growth reached 7%. The main growth drivers were the aerospace and ICT (information and communication technology) sectors, particularly in China, but also across Europe. Moreover, a rising demand for automation and recently launched new products supported higher sales and margins in the second half. The division significantly increased its operating result by 32% to CHF 82 million.

In order to speed up its digitalization drive, GF Machining Solutions acquired in September Symmedia GmbH, a leading connectivity software specialist, based in Bielefeld (Germany).

Strategy implementation well on track

The 2020 Strategy of GF is being step-by-step implemented. Growth in 2017 clearly exceeded our annual target of 3–5% and profitability was well in line with our strategy goals, also thanks to a broadly favorable economic environment.

In 2017, the majority of acquisitions and investments have been focused on the growth

"Growth in 2017 clearly exceeded our annual target of 3–5%."

markets of Asia, America, and Eastern Europe, in line with our 2020 strategy. In Western Europe, we have and will continue to automatize as well as optimize productivity. The ongoing switch to higher margin businesses is showing results at GF Piping Systems and GF Machining Solutions, thanks to the introduction of new products and the development of promising market segments like aerospace for GF Machining Solutions and cooling for GF Piping Systems.

Per end of January 2018, GF Automotive announced the acquisition of Precicast Industrial Holding SA, a Swiss-based precision casting specialist, thus increasing its industrial sectors' presence, in particular in the promising aerospace field. In order to better reflect the evolution of its portfolio, the name of the division will be, as per closing, changed to GF Casting Solutions.

Finally, the trainings linked to our all-important initiatives to boost our innovation tempo through Design Thinking and to optimize our sales force efficiency through Value Selling were completed during 2017 and will now be applied across the Corporation.

Outlook 2018

The high growth of 2017 can certainly not be taken for granted, but GF is well present and active in today's key industrial trends (water conservation for GF Piping Systems, electric cars and vehicle weight reduction for GF Automotive, digitalization of production for GF Machining Solutions) backed by a worldwide, decentralized presence and an emphasis on customercentered innovation.

"GF is well present and active in today's key industrial trends."

The momentum at GF Piping Systems remains strong, the backlog at GF Machining Solutions is at the highest level for more than ten years and new plants as well as additional capacities for light metal components will come into operation at GF Automotive during the year. Based on our present assessment of the worldwide economic environment, we are therefore convinced that GF can further grow during 2018 and generate returns well in line with its 2020 objectives that is a sales growth in the 3–5% range while maintaining profitability figures in the 8–9% range for the ROS and 18–22% for the ROIC.

We appreciate the feedback of our customers and shareholders

Our heartfelt thanks go to our employees, who all understand that the intensive, continuous trainings we conduct are part and parcel of building a successful future, constantly adapting ourselves to evolving customer requirements. We are similarly grateful to our customers for allowing us to work together in answering their needs. They are the best source for our innovations.

We had regular and intensive discussions with our shareholders all through the year and we thank them for the trust they put in our company as well as for their feedback which allows us to continuously adapt and improve.

Andreas Koopmann Chairman of the Board of Directors

Yves Serra President and CEO

Strong global presence

Expansion in growth markets is one of the main strategic thrusts of GF. GF must be strong where the markets are. Today, the company is present in 34 countries worldwide. And there will be more to come.





F. I. t. r.: Joost Geginat (Head of GF Piping Systems), Andreas Müller (CFO), Yves Serra (CEO), Pascal Boillat (Head of GF Machining Solutions), and Josef Edbauer (Head of GF Automotive)



Highlights 2017



Construction of the new innovation and production center started

In March, the construction of the new GF Machining Solutions facility in Biel (Switzerland) began. The modern plant, which is taking shape on an area of 24'500 m², will be built for the production of machine tools and spindles. It will also include a state-ofthe-art research and development center and an innovative application center. The first employees will move in at the beginning of 2019. The plant will replace the Swiss sites in Nidau, Ipsach and Luterbach and provide space for approximately 450 workplaces. In total, GF will have invested around CHF 80 million in the Biel location by 2020.

06/17

11/17

Fostering flexible working models

In addition to up-to-date working models, the compatibility of work and family is one of the key characteristics of a modern employer today. Therefore, GF introduced a new policy for employees in Switzerland: as of 1 June 2017, GF strengthens flexible working models such as part-time work, job sharing, and home office. Furthermore, the company extended the existing maternity or paternity leave by another three weeks. At the same time, GF guarantees women a comparable job for up to one year after the birth of their child, thus supporting them in returning to work after maternity leave.

Expanding light metal footprint

GF Automotive has strengthened its portfolio in the field of aluminum die-casting. In November 2017, the division acquired Eucasting Ro SRL, a high-pressure aluminum die-casting specialist with two production sites in Romania. The acquisition follows GF Automotive's strategy to expand its presence in the growing light metal components business. With a workforce of approximately 600 employees, Eucasting generates a turnover of about CHF 50 million. 70% of the sales are achieved in the automotive segment followed by lighting solutions and further industrial applications.

07/17

Strengthening presence in North America

In July 2017, GF Piping Systems acquired Urecon Ltd., Coteau-du-Lac (Quebec, Canada), a specialist in pre-insulated piping systems for freeze protection and chilled water. The acquisition strengthens GF Piping Systems' presence in North America and accelerates the introduction of its pre-insulated COOL-FIT piping system into the local markets. Urecon Ltd. was founded in 1969 and employs around 100 employees. The Cana dian company has two stateof-theart manufacturing facilities and holds a strong market position in the field of high-quality pre-insulated piping systems.



09/17

Accelerating digitalization

In September, GF Machining Solutions acquired 100% of the shares of Symmedia GmbH, Bielefeld (Germany). The acquisition is in line with the division's strategy to digitalize its offering. Symmedia, a specialist for the secure interconnection of machines, has been providing software solutions for a wide range of industries for more than 20 years. To date, over 15'000 machines worldwide have been equipped with Symmedia software. Thanks to the newly-acquired technology, GF Machining Solutions is able to accelerate its digital transformation and offer its customers complete solutions in the area of Industry 4.0.





10/17

Opening of new light metal plant in the USA

At the beginning of October 2017, the new high-pressure die-casting facility of GF Linamar LLC was opened in North Carolina, USA. The new plant, measuring 33'000 m², provides space for 300 employees and state-of-the-art die-casting machines. As of June 2018, the joint venture between GF and the Canadian manufacturing specialist Linamar will produce light metal components for the strategically important automotive market in North America. The plant will be well-utilized in the coming years: already in September 2017, a US manufacturer placed a major order for a total of approximately USD 300 million with a term of five years.



Developing the transportation system of the future

Since spring 2017, GF Automotive has been supporting the Swissloop team of ETH Zurich. The Swiss University team developed and built a transport capsule for the Hyperloop project initiated by Tesla founder Elon Musk. The idea: a new high-speed transportation system will transport passengers and goods up to 1'200 km/h in capsules (called pods) through a vacuum tube. As a main sponsor, GF Automotive supports the team in developing and manufacturing an aluminum lightweight component for the pod's chassis. In August 2017, Swissloop entered the Hyperloop Competition II and made it into the top three on the test track in California.



03/17 15 years "Clean Water" Foundation

Since 2002, GF's "Clean Water" Foundation has been supporting sustainable projects to provide people around the world with clean drinking water. Over the past 15 years, GF has invested over CHF 10 million in the foundation. Until today, more than 130 projects have been implemented, providing about 300'000 people with better access to clean drinking water. Since 2012, the foundation has been working mainly with Caritas Switzerland; the NGO realizes about half of the "Clean Water" drinking water projects. In 2017, various projects in Africa, Asia, and Latin America were defined in order to improve the living conditions of people in Nepal, Kenya, and Bangladesh.

GF Piping Systems at a glance

GF Piping Systems is a leading supplier of piping systems made of plastics and metal. The division focuses on system solutions, high-quality components for the safe transport of water, chemicals, and gas, as well as corresponding services. The product portfolio of fittings, valves, pipes, automation, and jointing technologies covers all applications of the water cycle.



Key figures

| CHF million | 2017 | 2016 |
|---------------------------------|-------|-------|
| | | |
| Order intake | 1'718 | 1'488 |
| Sales | 1'678 | 1'494 |
| Sales growth % | 12.3 | 5.4 |
| Organic growth % | 12.1 | 5.0 |
| EBITDA | 245 | 214 |
| EBIT | 189 | 162 |
| Return on sales (EBIT margin) % | 11.3 | 10.8 |
| Invested capital (IC) | 671 | 669 |
| Return on invested capital | | |
| (ROIC) % | 22.9 | 20.6 |
| Number of employees | 6'764 | 6'507 |

Worldwide 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, and North and South America.

Strategy 2020 – Milestones



Expanding global presence

With the acquisition of Urecon Ltd., a Canadian specialist for pre-insulated piping systems for freeze protection and chilled water, GF Piping Systems is expanding its footprint in North America and accelerating the launch of its pre-insulated piping system COOL-FIT in the NAFTA region. Urecon operates two state-of-the-art production sites in the provinces of Quebec (Coteau-du-Lac) and Alberta (Calmar), has a workforce of approximately 100 employees and generated sales of around CHF 20 million in 2016.





Driving innovation excellence

The launch of Strategy 2020 marked the start of a corporatewide initiative to implement the Design Thinking approach. So far more than 1'000 GF employees have taken part in training sessions in Asia, America, and Europe. At GF Piping Systems alone, more than 30 projects are currently being carried out in the spirit of the customer-oriented Design Thinking approach.

Shifting the portfolio to higher-value products and services

The shift of the portfolio to higher-value products and services is a key element of the strategy of GF Piping Systems. The division wants to grow significantly in the area of automation solutions, sensors, and intelligent valves. At the same time, it aims to expand its global service business. The development of its digital offering, which optimally connects the diverse stakeholders in the value chain, plays an important role. An example is Track & Trace, a new digital service that enables centimeter-precise positioning of GF products. In addition, the piping installation process can be monitored remotely.

Innovative solution for a prestigious project

Cambridge Assessment, a department of the renowned University of Cambridge (UK), opened the doors of its new headquarter building in early 2018. The requirements of the building were high, especially with regard to innovation and sustainability. This made COOL-FIT 2.0, the pre-insulated piping solution of GF Piping Systems, the perfect choice.



The Triangle, the distinctive headquarter building of Cambridge Assessment, was one of the biggest construction projects ever in the British university city. The new building complex provides space for more than 2'000 employees – rising to around 3'000 by 2025. For the development of the pioneering project, innovation and sustainability had top priority. This, of course, extended to the piping systems for the supply of cold and warm water: they should not only contribute to the energy efficiency of the building but also – due to the tight time schedule of the project – had to be installed quickly and easily on site.

High energy efficiency

That was why the construction company Bouygues opted for COOL-FIT 2.0, the pre-insulated, lightweight and corrosion-free plastic solution from GF Piping Systems. "That's the solution we want", the Bouygues represen-

"COOL-FIT 2.0 is definitely a benchmark for new buildings."

Brian Brewis, Senior Building Services Manager at Bouygues

tatives exclaimed. The company was looking for an innovative and economic solution for

distributing chilled and hot water (37° C) in the office spaces as well as in ancillary buildings. Thanks to the insulating qualities of COOL-FIT 2.0, temperature fluctuations are minimized both for chilled water and for warm water which leads to remarkable savings. For the cooling function alone, the savings are up to 30% per year compared to an insulated steel piping system.

Long lifetime

Moreover, COOL-FIT 2.0 offers outstanding durability. More and more metal solutions are being substituted with plastic as building owners seek to avoid rusty, corroding pipes that result in leaks and maintenance issues. Bouygues therefore stipulated that the piping systems in the

"As it turned out, we offered with the right solution at the right time."

James Chandler, Project Manager at GF Piping Systems in Coventry (UK)

Triangle building should have a life cycle of at least 25 years. COOL-FIT 2.0 meets this requirement easily and significantly exceeds the durability of conventional solutions made of metal. "As it turned out, we offered the right solution at the right time", says James Chandler, Project Manager at GF Piping Systems.

Fast installation

The schedule for the realization of the project was ambitious. To expedite on-site work, the installation team followed a modular approach. The team of GF Piping Systems in Coventry (UK) provided valuable support by cutting the pipes to predetermined lengths and prefabricating custom bends for unique angles in the building. "This way, completed modules could easily be installed and connected with eletrofusion jointing technology on site", explains James Chandler. Thanks to its lightweight and pre-insulation properties, COOL-FIT 2.0 was especially conducive to this installation strategy: the innovative system was set up in just half the time that would have been required for a conventional solution.



James Chandler, Project Manager at GF Piping Systems, is convinced of the lightweight and pre-insulation properties of COOL-FIT 2.0.

Promising market potential

COOL-FIT 2.0 has only been on the market for a short while, yet the list of projects is already impressive and includes prestigious buildings such as the London South Bank University, the Eden Project in Cornwall, or the Left Bank Residential Tower in Birmingham. And that's just in the UK. The worldwide market potential for COOL-FIT 2.0 is even more promising. After all, GF Piping Systems' latest innovation is not only perfectly suited for maintaining temperatures in larger buildings such as shopping malls, hospitals, hotel and office complexes, but also for cooling large data centers with their special requirements in terms of safety and efficiency.

GF Automotive at a glance

GF Automotive is a technologically pioneering development partner and manufacturer of lightweight casting solutions and systems made of aluminum, magnesium, and iron for the global automotive industry as well as for industrial applications. The highly complex lightweight solutions contribute significantly to making modern vehicles lighter as well as to reducing CO_2 emissions.



Key figures

| CHF million | 2017 | 2016 |
|---------------------------------|-------|-------|
| | | |
| Order intake | 1'527 | 1'346 |
| Sales | 1'482 | 1'335 |
| Sales growth % | 11.0 | 1.1 |
| Organic growth % | 8.9 | -0.3 |
| EBITDA | 158 | 161 |
| EBIT | 93 | 100 |
| Return on sales (EBIT margin) % | 6.3 | 7.5 |
| Invested capital (IC) | 481 | 397 |
| Return on invested capital | | |
| (ROIC) % | 19.5 | 23.1 |
| Number of employees | 5'738 | 5'047 |

Worldwide presence

GF Automotive manufactures at 13 production sites in Germany, Austria, Romania, China, and the USA. It also has sales offices in these countries, as well as in Switzerland, Italy, Korea, and Japan. The research and development centers with globally recognized lightweight expertise are located in Schaffhausen (Switzerland) and Suzhou (China).

Strategy 2020 – Milestones



Expanding global footprint in light metal

A cornerstone of the strategy of GF Automotive is to expand its light metal expertise globally. In 2017, the division achieved two milestones: First, it acquired Eucasting Ro SRL, an aluminum die-casting specialist with two production sites in Romania. Secondly, as part of the joint venture with Linamar, it opened a new die-casting facility in North Carolina (USA). From 2018, GF Linamar will be manufacturing light metal components for the strategically important North American automotive market. The plant will be well-utilized in the upcoming years, thanks in part to a major order for instrument panels for a new pick-up model of a renowned US manufacturer. The value of the contract amounts to a total of around USD 300 million over a period of five years.



Developing new, attractive business segments

GF Automotive also aims to be active in promising markets outside the automotive segment, such as energy. For example, the division is successfully participating in the growing solar market. In 2017, it delivered thousands of castings for one of the world's largest solar power plants located on the edge of the Moroccan desert. The special brackets from the GF Automotive plant in Leipzig (Germany) weigh almost 600 kilograms and ensure that the 180-square-meter solar reflector is perfectly aligned and maintains its position in the event of storms.



Increased offering of ready-to-mount components

More and more customers are looking for a partner who operates at multiple stages along the value chain and delivers ready-to-mount solutions from a single source. GF Automotive is responding to this growing need by offering an increasing number of these components, such as sill frame members for Audi (image left). Today, the proportion of machined parts at GF Automotive amounts to round about 30%.

Lightweight design for the premium segment

Dynamic, safe and efficient: with the new A8, premium car manufacturer Audi has excelled itself in its core competence of lightweight design. For the car body, the so-called Audi Space Frame, GF Automotive provides eleven ultra-light aluminum and magnesium castings – more than ever before.



The new A8 fully lives up to the "Vorsprung durch Technik" slogan of the Ingolstadt-based premium manufacturer. The fourth generation of the luxury sedan impresses not only with the latest technology for highly automated driving but also with its innovative lightweight design. Already back in 1994, with the first generation of the Audi A8, the car manufacturer introduced a revolutionary body construction: the Audi Space Frame. The self-supporting aluminum structure weighed as less as 249 kilograms, making Audi one of the first car manufacturers in the premium segment to focus consistently on lightweight construction and aluminum components.

Unique mix of materials

For the latest generation of its top model, Audi has perfected the legendary Audi Space Frame, also thanks to the expertise of GF Automotive. For the first time an intelligent mix of four materials has been used to further reduce the weight and increase the torsional stiffness of the body structure. GF Automotive provides a total of eleven structural components for the Audi Space Frame: nine parts made of high-strength



The GF Automotive team (Markus Beier, Georg Zerling, Christian Platzer and Siegfried Wilhelm v. l. t. r.) worked closely with Audi (Marc Hummel and Jan Gaugler) to make the alloy ready for serial production at GF.

die-casting aluminum plus two magnesium components for the front and rear center console. GF Automotive is thereby making a decisive contribution to the intelligent light-weight construction concept of the new A8. Steel and carbon-fiber reinforced polymer (CFRP) complement the innovative material mix.

High customer requirements

"The body of the new Audi A8 requires more large, supporting high-tech structural components casted in light metal than any other car model to date," says Siegfried Wilhelm, Key Account Manager at GF Automotive. He has been looking after Audi for almost 20 years and understands the customer's high requirements

"With GF Automotive we have a strong partner to realize the challenging Audi Space Frame castings of the new A8."

Marc Hummel, Project Manager at Audi

when it comes to technology and quality. GF Automotive ultimately secured the ambitious A8 contract thanks to its expertise in light metal and its know-how in casting large and complex components.

Significant weight reduction

Thanks to the Audi Space Frame, the body of the A8 weighs around 40% less than a comparable steel structure. The castings from GF Automotive replace a large number of sheet metal parts with a small number of lightweight structural components. The highly complex geometry of the largest aluminum parts which are connecting the side sills with the rear frame members, could not have been produced in steel. These parts made it possible to further expand the interior of the new A8. In addition, the A8 outperforms the previous model by offering up to 24% more torsional stiffness for precise handling and driving comfort. At the same time, the GF castings are used at crash-relevant points of the car body and increase the safety of the large sedan thanks to their high stability.

Greater value creation

A new, four-step heat treatment process is used to further increase the strength of the die-cast aluminum components. "This process enables us to manufacture stronger components even though the walls are up to 1.8 mm thinner compared to previous models," states Siegfried Wilhelm. For the heat treatment as well as for the coating and processing of the castings, GF Automotive invested in new production lines at its location in Herzogenburg (Austria). Here, the 1.43-meter sill frame members are manufactured on GF Automotive's largest highpressure die-casting machines. The suspension holdings made of aluminum are also casted in Herzogenburg. The remaining aluminum and magnesium components are produced in Altenmarkt (Austria).

But GF Automotive is not only responsible for the casting, heat treatment and coating of most Audi Space Frame components; the components are also mechanically processed at GF and partly pre-assembled before they are delivered ready for mounting to the Audi production plant in Neckarsulm (Germany). This is where the new A8 is produced for the global market. "In the scope of this ambitious assignment, we offer Audi even greater value creation and GF Automotive's comprehensive expertise in lightweight design," Siegfried Wilhelm says proudly.

This is an shortened version. The complete article can be found on annualreport.georgfischer.com/2017

GF Machining Solutions at a glance

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 EDM machines as well as spindle systems, laser texturing, additive manufacturing, as well as automation and digitalization solutions. The key customer segments are the aerospace, ICT, medical, and automotive industries.



Key figures

| CHF million | 2017 | 2016 |
|---------------------------------|-------|-------|
| | | |
| Order intake | 1'030 | 917 |
| Sales | 992 | 916 |
| Sales growth % | 8.3 | 1.6 |
| Organic growth % | 7.4 | -0.3 |
| EBITDA | 96 | 77 |
| EBIT | 82 | 62 |
| Return on sales (EBIT margin) % | 8.3 | 6.8 |
| Invested capital (IC) | 269 | 261 |
| Return on invested capital | | |
| (ROIC) % | 24.1 | 18.3 |
| Number of employees | 3'255 | 3'102 |

Worldwide 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, in the US, in Sweden, and China.

Strategy 2020 – Milestones



Positioning as innovation leader

In 2017, GF Machining Solutions once again successfully presented its competencies at the EMO in Hannover (Germany), the world's largest trade fair for metalworking. On an interactive, 945 m² booth, customers were able to learn more about the division's intelligent solutions and technological innovations. GF Machining Solutions unveiled several novelties to the 130'000 trade visitors, covering the areas of milling, EDM and laser technology, additive manufacturing, automation, and digitalization.





Offering complete solutions

Symmedia GmbH from Bielefeld (Germany) has been part of GF since September 2017. With the acquisition of the software company, GF Machining Solutions is expanding its expertise in the field of Industry 4.0 and strengthening its digital offering. Symmedia specializes in the secure networking of machines and has been developing service solutions for the mechanical engineering sector since 1997. Today, over 15'000 machines across the globe are equipped with software produced by Symmedia. Thanks to this acquisition, GF Machining Solutions can now drive forward its own digital transformation and offer its customers complete solutions for industrial networking.

Creating a future-oriented, efficient organization

In order to concentrate all milling machine operations in Switzerland in one location, GF Machining Solutions is building a new innovation and production center in Biel. The state-of-the-art plant will replace the three current locations in Nidau, Ipsach, and Luterbach (Switzerland), and lay the ideal foundations for future growth through synergies and streamlined processes. In total, approximately 450 attractive workplaces will be created in Biel. The site will comprise production, research and development, as well as a modern application center.

Smart solutions for the factory of the future

The Industrial Internet of Things (IIoT) is opening up a new era of smart manufacturing. Accordingly, GF Machining Solutions has been speeding up its digital transformation and broadening its digital portfolio. A prime example is the software solution rConnect, which helps Italian mold and tool maker Aldeghi ensure maximum machine uptime.



Commonly described as Industry 4.0, a revolution is in progress that will change shop floors all over the world: smart machines will be connected with one another and soon make smart factories a reality. GF Machining Solutions is part of this radical change. However, the factory of the future won't be built overnight. On the contrary, it will require many small steps. A starting point is automation and the ability to flexibly coordinate machining processes with one another. Another important aspect is connectivity: enabling machines to communicate with one another, to deliver data wirelessly and to be accessed from remote service centers. With the digital service platform rConnect, GF Machining Solutions already provides such an offering.

Digital services for higher productivity

rConnect is a platform for digital services available for all technologies supplied by GF Machining Solutions, from milling, EDM, and laser to automation and additive manufacturing. Following a modular approach, rConnect comprises different services which empower manufacturers to increase their productivity. First, there is the Customer Cockpit, the user interface and the door to GF Machining Solutions' world of digital services. It connects customers with their production facilities via PC or mobile device from anywhere at any time. Live Remote Assistance (LRA) provides direct access to GF experts allowing face-to-face assistance by using audio, video, chat and much more functionalities. In order to resolve a problem with a machine, the GF experts can now use LRA to perform checks remotely. In addition, customers can use the Messenger module to get instant access to all machine park data on their smartphones. It is even possible to receive an alarm message from a machine or to send a service request via App.

Clear customer benefit

Precision mechanical workshop Aldeghi is already working with rConnect. The Northern Italian company manufactures molds, tools, and prototype mechanical products for companies in the automotive, electronic, and household appliance markets. The fact that Aldeghi turned to GF Machining Solutions for assistance with its first steps into digitalization is the natural continuation of a collaboration which started some 30 years ago. Today, nine machines from GF Machining Solutions are running at the Italian production facility. Six of these are equipped with a System 3R robot system, while rConnect LRA and Messenger are operating on three EDM machines from GF.

"Thanks to rConnect we can monitor our production from a mobile device."

Cesare Aldeghi, Managing Director of Aldeghi

The benefits for the customer are clear. Thanks to rConnect, Aldeghi now have greater peace of mind when running their machinery unmanned in the evenings and on weekends, because the status of the machines can be checked remotely. "We wanted to ensure that Aldeghi was getting a solution that worked for them right from the start. So before the implementation, we performed extensive tests until Aldeghi's employees were comfortable with the rConnect features", says Enrico Borghi from GF Machining Solutions Customer Services Italy.

Looking into the future

The world of digitalization is evolving rapidly and so is GF Machining Solutions' digital portfolio. Therefore rConnect will soon be extended by modules for condition monitoring and predictive maintenance. With condition monitoring, operators will receive proactive updates on the current status of their machines, for example, when wear parts are nearing their end of life, or when consumables have almost run out. Predictive maintenance goes a step further. The data generated by the machine is analyzed with algorithms. This way, it becomes possible to predict when maintenance needs to be carried out – even before an alarm is triggered.



Enrico Borghi (left) from GF Machining Solutions and Cesare Aldeghi, Managing Director of Aldeghi, work closely together when it comes to the production of molds and tools.

Operators of machine fleets equipped with rConnect benefit on many levels: faster diagnosis and interventions when machine issues arise which leads to significantly less machine downtime and to higher continuous productivity. The soon-to-be-introduced modules for condition monitoring and predictive maintenance will help boost the effectiveness and service life of the entire machine fleet. But most of all, by integrating rConnect into their productions, as Aldeghi has done, machine operators are taking an important step towards smart factories.

This is an shortened version. The complete article, including customer interview, can be found on annualreport.georgfischer.com/2017

Balance sheet

| As of 31 December 2017 and 2016, CHF million | 2017 | % | 2016 | % |
|--|-----------|-----|-----------|-----|
| Cash and cash equivalents | 624 | | 571 | |
| Marketable securities | 9 | | 8 | |
| Trade accounts receivable | 754 | | 666 | |
| Inventories | 773 | | 673 | |
| Income taxes receivable | 9 | | 14 | |
| Other accounts receivable | 62 | | 52 | |
| Prepayments to creditors | 30 | | 19 | |
| Accrued income | 16 | | 21 | |
| Current assets | 2'277 | 63 | 2'024 | 63 |
| | | 03 | 2 0 2 4 | 05 |
| Property, plant, and equipment for own use | 1'170 | | 1'026 | |
| Investment properties | 36 | | 37 | |
| Intangible assets | 29 | | 25 | |
| Deferred tax assets | 85 | | 80 | |
| Other financial assets | 13 | | 10 | |
| Non-current assets | 1'333 | 37 | 1'178 | 37 |
| | 1000 | | 11/0 | |
| Assets | 3'610 | 100 | 3'202 | 100 |
| | | | | |
| Trade accounts payable | 593 | | 470 | |
| Bonds | 150 | | <u>-</u> | |
| Other financial liabilities | 147 | | 145 | |
| Loans from pension fund institutions | 28 | | 29 | |
| Other liabilities | 69 | | 53 | |
| Prepayments from customers | 65 | | 50 | |
| Current tax liabilities | 63 | | 59 | |
| Provisions | 45 | | 43 | |
| Accrued liabilities and deferred income | 258 | | 218 | |
| Current liabilities | 1'418 | 39 | 1'067 | 34 |
| Bonds | 374 | | 523 | |
| Other financial liabilities | 117 | | 96 | |
| | 127 | | 119 | |
| Pension benefit obligations Other liabilities | 38 | | 47 | |
| Provisions | 120 | | 105 | |
| | | | | |
| Deferred tax liabilities Non-current liabilities | 47 823 | 23 | 45 935 | 29 |
| | 023 | 23 | 735 | 27 |
| Liabilities | 2'241 | 62 | 2'002 | 63 |
| | | | | |
| Share capital | 4 | | 4 | |
| Capital reserves | 26 | | 24 | |
| Treasury shares | -8 | | -10 | |
| Retained earnings | 1'295 | | 1'138 | |
| Equity attributable to shareholders of Georg Fischer Ltd | 1'317 | 37 | 1'156 | 36 |
| Non controlling interacts | 52 | 1 | 44 | 1 |
| Non-controlling interests | JZ / | | | I |
| Non-controlling interests Equity | 1'369 | 38 | 1'200 | 37 |
| Equity | 1'369 | 38 | 1'200 | 37 |

Income statement

| For the years ended 31 December 2017 and 2016, CHF million | 2017 | % | 2016 | % |
|---|--------|-----|--------|-----|
| Sales | 4'150 | 100 | 3'744 | 100 |
| Other operating income | 43 | | 45 | |
| Income | 4'193 | 101 | 3'789 | 101 |
| Cost of materials and products | -1'991 | | -1'751 | |
| Changes in inventory of unfinished and finished goods | 37 | | 57 | |
| Operating expenses | -700 | | -674 | |
| Gross value added | 1'539 | 37 | 1'421 | 38 |
| Personnel expenses | -1'048 | | -978 | |
| Depreciation on tangible fixed assets | -131 | | -126 | |
| Amortization on intangible assets | -8 | | -6 | |
| Operating result (EBIT) | 352 | 8.5 | 311 | 8.3 |
| Interest income | 2 | | 2 | |
| Interest expense | -28 | | -30 | |
| Other financial result | -5 | | -3 | |
| Ordinary result | 321 | 8 | 280 | 7 |
| Non-operating result | 1 | | 1 | |
| Extraordinary result | | | | |
| Profit before taxes | 322 | 8 | 281 | 8 |
| Income taxes | -64 | | -56 | |
| Net profit | 258 | 6 | 225 | 6 |
| – Thereof attributable to shareholders of Georg Fischer Ltd | 252 | | 216 | |
| - Thereof attributable to non-controlling interests | 6 | | 9 | |
| Basic earnings per share in CHF | 62 | | 53 | |
| Diluted earnings per share in CHF | 62 | | 53 | |

Cash flow statement

| For the years ended 31 December 2017 and 2016 (condensed), CHF million | 2017 | 2016 | |
|--|------|------|--|
| | | | |
| Net profit | 258 | 225 | |
| Depreciation and non-cash income/expenses | 262 | 269 | |
| Use of provisions | -22 | -31 | |
| Changes in net working capital | -30 | -30 | |
| Changes in other receivables and accrued income | 2 | -3 | |
| Changes in other liabilities and accrued liabilities and deferred income | 22 | 42 | |
| Interest and income taxes paid | -82 | -72 | |
| Cash flow from operating activities | 410 | 400 | |
| Cash flow from investing activities | -280 | -265 | |
| Free cash flow before acquisitions/divestitures | 204 | 231 | |
| Free cash flow | 130 | 135 | |
| Cash flow from financing activities | -80 | -107 | |
| Net cash flow | 53 | 22 | |

Balance sheet

| As of 31 December 2017 and 2016, CHF 1'000 | 2017 | 2016 |
|---|-----------|--------------|
| Cash and each againstants and shart tarm investments with a susted market price | 181'508 | 252'694 |
| Cash and cash equivalents and short-term investments with a quoted market price | 3'605 | <u>4'987</u> |
| Other current receivables due from third parties | | - |
| Other current receivables due from Corporate Companies | 24'697 | 25'292 |
| Accrued income and prepaid expenses | 5'257 | 3'930 |
| Current assets | 215'067 | 286'903 |
| Loans to Corporate Companies | 129'823 | 146'690 |
| Other financial assets | 1'899 | 1'743 |
| Investments | 1'111'485 | 1'025'639 |
| Non-current assets | 1'243'207 | 1'174'072 |
| Assets | 1'458'274 | 1'460'975 |
| | 12:044 | 10/010 |
| Current liabilities with third parties | 12'066 | 10'210 |
| Short-term interest-bearing liabilities due to Corporate Companies | 124'386 | 200'362 |
| Accrued expenses and deferred income | 27'196 | 11'106 |
| Current liabilities | 163'648 | 221'678 |
| Long-term interest-bearing liabilities | 3'790 | 5'586 |
| Long-term provisions | 24'114 | 22'098 |
| Non-current liabilities | 27'904 | 27'684 |
| Liabilities | 191'552 | 249'362 |
| 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 |
| – Reserves for treasury shares | | 10'355 |
| Statutory retained earnings | | |
| – Available earnings carried forward | 977'007 | 941'110 |
| – Net profit for the year | 144'659 | 107'307 |
| Treasury Shares | -7'785 | |
| Equity | 1'266'722 | 1'211'613 |
| Liabilities and equity | 1'458'274 | 1'460'975 |

Income statement

| For the years ended 31 December 2017 and 2016, CHF 1'000 | 2017 | 2016 |
|--|---------|---------|
| | | |
| Dividend income | 126'581 | 138'729 |
| Other income from investments | | 2'490 |
| Income from services provided to Corporate Companies | 62'360 | 58'072 |
| Financial income | 23'695 | 9'119 |
| Commission income from Corporate Companies | 12'118 | 11'454 |
| Other income | 2'087 | 2'305 |
| Income | 226'841 | 222'169 |
| Value adjustment on investments | 30,000 | 59'095 |
| Other expenses for investments | 2'207 | 4'563 |
| Financial expenses | 1'531 | 6'137 |
| Cost of services provided by Corporate Companies | 2'241 | 2'269 |
| Personnel expenses | 20'661 | 18'367 |
| Other operating expenses | 15'835 | 15'401 |
| Direct taxes | 9'707 | 9'030 |
| Expenses | 82'182 | 114'862 |
| Net profit for the year | 144'659 | 107'307 |

Statement of changes in equity

| For the years ended 31 December | | General | Treasury | Retained | |
|---|---------------|---|----------|-------------|-----------|
| 2017 and 2016, CHF 1'000 | Share capital | reserves ¹ | shares | earnings | Equity |
| D | (1404 | 4 (0) 7 (0 | RIBOE | 414.0414.44 | |
| Balance as of 31 December 2017 | 4'101 | 148'740 | -7'785 | 1'121'666 | 1'266'722 |
| Net profit for the year | | | | 144'659 | 144'659 |
| Dividend payment | | | | -82'018 | -82'018 |
| Reversal of reserve for treasury shares | | | -10'355 | 10'355 | |
| Acquisition of treasury shares | | - | -11'293 | | -11'293 |
| Disposal of treasury shares | | | 3'508 | 253 | 3'761 |
| Balance as of 31 December 2016 | 4'101 | 148'740 | 10'355 | 1'048'417 | 1'211'613 |
| Net profit for the year | | | | 107'307 | 107'307 |
| Dividend payment | | | | -73'816 | -73'816 |
| Reclassification | | ••••••••••••••••••••••••••••••••••••••• | 4'721 | -4'721 | |
| Balance as of 31 December 2015 | 4'101 | 148'740 | 5'634 | 1'019'647 | 1'178'122 |

1 Legal reserves

26 Financial statements Georg Fischer Ltd 27

Proposal by the Board of Directors

| Proposal by the Board of Directors for the appropriation of the retained earnings 2017 , CHF 1'000 | 2017 | 2016 |
|--|-----------|-----------|
| Net profit for the year | 144'659 | 107'307 |
| Earnings carried forward | 966'399 | 945'831 |
| Allocation to/reduction in reserves for treasury shares | 10'355 | -4'721 |
| Profit from treasury shares | 253 | |
| Retained earnings | 1'121'666 | 1'048'417 |
| Dividend payment CHF 23 per registered share ¹ | -94'321 | -82'018 |
| To be carried forward | 1'027'345 | 966'399 |

1 The dividend payment is based on the issued share capital as of 31 December 2017. 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 18 April 2018 to pay out a dividend of CHF 23 per registered share out of retained earnings.

In the previous year, a dividend of CHF 20 per registered share out of retained earnings was paid out according to the decision of the Annual Shareholders' Meeting of 19 April 2017.

Schaffhausen, 22 February 2018

For the Board of Directors The Chairman

unde

Andreas Koopmann

Five-year overview of the Corporation

| CHF million | 2017 | 2016 | 2015 | 2014 | 2013 |
|---|--------|--------|--------|--------|--------|
| Order intake | 4'274 | 3'749 | 3'662 | 3'836 | 3'795 |
| | 773 | 614 | 612 | 634 | 577 |
| Orders on hand at year-end | 113 | 014 | 012 | 034 | 577 |
| Income statement | | | | | |
| Sales | 4'150 | 3'744 | 3'640 | 3'795 | 3'766 |
| EBITDA | 491 | 443 | 422 | 399 | 380 |
| Operating result (EBIT) | 352 | 311 | 296 | 274 | 251 |
| Net profit/loss | 258 | 225 | 198 | 195 | 145 |
| Cash flow | | | | | |
| Cash flow from operating activities | 410 | 400 | 328 | 248 | 309 |
| Cash flow from investing activities | -280 | -265 | -140 | -158 | -201 |
| Free cash flow before acquisitions/divestitures | 204 | 231 | 190 | 110 | 174 |
| Free cash flow | 130 | 135 | 188 | 90 | 108 |
| Balance sheet | | | | | |
| Assets | 3'610 | 3'202 | 3'083 | 2'989 | 3'126 |
| Liabilities | 2'241 | 2'002 | 1'953 | 1'885 | 2'148 |
| Equity | 1'369 | 1'200 | 1'130 | 1'104 | 978 |
| Net working capital | 899 | 838 | 819 | 864 | 764 |
| Invested capital (IC) | 1'466 | 1'333 | 1'279 | 1'354 | 1'224 |
| Net debt | 183 | 214 | 238 | 354 | 352 |
| Key figures | | | | | |
| Return on equity (ROE) % | 20.1 | 19.3 | 17.7 | 18.7 | 14.8 |
| Return on invested capital (ROIC) % | 20.3 | 19.3 | 18.9 | 17.9 | 16.7 |
| Return on sales (EBIT margin) % | 8.5 | 8.3 | 8.1 | 7.2 | 6.7 |
| Asset turnover | 3.0 | 2.9 | 2.8 | 2.9 | 3.0 |
| Cash flow from operating activities in % of sales | 9.9 | 10.7 | 9.0 | 6.5 | 8.2 |
| Employees | | | | | |
| Employees at year-end | 15'835 | 14'808 | 14'424 | 14'140 | 14'066 |
| Europe | 9'658 | 8'845 | 8'783 | 8'676 | 8'548 |
| Asia | 3'807 | 3'713 | 3'502 | 3'455 | 3'468 |
| Americas | 1'503 | 1'348 | 1'262 | 1'259 | 1'290 |
| Rest of world | 867 | 902 | 877 | 750 | 760 |

Online Annual Report 2017

Find out more about financial figures, information on GF's strategy and business segments on www.annualreport.georgfischer.com/2017/en



Important dates

2018 **18 April** Shareholders' Meeting for fiscal year 2017



Contacts

Investor Relations Daniel Bösiger 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

Imprint

Published by: Georg Fischer Ltd Edited by: Georg Fischer Ltd, Corporate Development Editorial assistance: Signum communication GmbH Designed by: NeidhartSchön AG Photos by: Nik Hunger, Anna Schroll, Christoph Papsch, Scott Gable, Audi Media Center, Cambridge Assessment All other photos: Georg Fischer Ltd Printed by: Neidhart + Schön Group AG

Cover: GF employee, GF Machining Solutions Schorndorf (Germany)

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 2017 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.



Climate Partner ^o climate neutral Print | ID 53232-1801-1007

