



Starrag Group

# Annual Report 2016

# Networking in practice

Industry 4.0 - production networked at every stage by communication technology - has been on everyone's lips for several years. At the Starrag Group it is already a reality. Flexible production systems, which are centrally controlled by cell controllers developed in house and thus carry out complex production orders, are part of the group's core competence. Critical to their success is the perfect interaction of man and machine - in other words, the production experts and the networked production facility.

**More about this on pages 30 - 43.**



Growth



Profitability

Safety

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## High-precision machine tools for greater productivity

The Starrag Group is a global technology leader in manufacturing high-precision machine tools for milling, turning, boring and grinding of workpieces made from metallic, composite and ceramic materials. Principle customers are internationally active companies in the Aerospace, Energy, Transportation and Industrial sectors. In addition to its portfolio of machine tools, Starrag Group provides integrated technology and maintenance services that enhance customer productivity.

The products are marketed under the following brands: Berthiez, Bumotec, Dörries, Droop+Rein, Heckert, Scharmann, SIP, Starrag, TTL and WMW. Headquartered in Rorschach/Switzerland, the Starrag Group operates manufacturing plants in Switzerland, Germany, France, the UK and India and has established a network of sales and service subsidiaries in numerous other countries.

The Starrag Group is listed on the SIX Swiss Exchange.

# Dear shareholders

Starrag Group managed to raise its order intake to an all-time high of CHF 480 million in the face of a persistently challenging global environment, an increase of no less than 44% from the below-average level reported in the previous year (+43% at constant exchange rates). By way of comparison, the global machine tooling manufacturing industry experienced a slight year-on-year drop in production output in 2016, while German machine tool makers reported an overall increase in new orders of approximately 7% according to VDW, Germany's national machine tool industry association. Sales revenues for Starrag Group amounted to CHF 372 million, an increase of 2% from the previous year (+1% at constant exchange rates).

Earnings before interest and tax (EBIT) were well below the year-ago figure at CHF 7.4 million, or 2.0% of sales. Subdued demand from the watchmaking industry was the main reason for this decline. Lower EBIT resulted in a corresponding reduction in net income to CHF 4.6 million or 1.2% of sales; earnings per share amounted to CHF 1.33. The equity ratio at year-end was a solid 53%. Net debt rose from CHF 15.9 million to CHF 18.7 million, mainly because of higher-than-average capital expenditures related to the construction of the new factory in Vuadens, Switzerland.

## Strategic focusing continues

In order to more effectively harness the Group's growth and earnings potential, we will be concentrating our resources even more than before on those market segments and regions that offer the most promise, i.e., the best sales and margin potential, as we execute our recently launched "Strategy 2020". Optimization of our market and product strategies within the same scope of business activities will strengthen our business model by prioritizing clearly defined market segments and regions, accentuating the customer value proposition, and simplifying marketing communications with a "one face to the customer" approach. A sharper strategic focus should also speed up new product launches and further reduce complexity by promoting integration and simplification.

Together with the steady stream of new or upgraded products and services and our continuous cost-cutting efforts, we are well-positioned to achieve our mid-term sales and profit targets. In more specific terms, sales are expected to grow by at least 5% with an operating profit margin of at least 8%. Both targets are multi-year averages across the cycle.

## Successful trade shows and customer events

As ordinary, Starrag Group participated in the major trade shows IMTS in Chicago and the AMB in Stuttgart. Efficiency gains, Industry 4.0 and intelligent machine peripherals were the highlighted themes at both trade shows.

Starrag has successfully organized onsite “Technology Days” events for invited customers for several years now and it continued this during the year under review. Starrag Group hosted three such events in 2016, where it presented its latest innovations to representatives from industrial sectors, trade journals and the academic world.

## Further progress in corporate governance

Starrag Group improved its ranking in the corporate governance study conducted by investor services firm zRating from an already excellent 14th place to 10th in 2016, out of the total 171 listed Swiss companies covered by the study. In the annual survey of annual reports conducted by HarbourClub and the business magazine “Bilanz”, our 2015 annual report was rated 41st out of a total of 228 annual reports published by listed companies in the Value Reporting (Print) category, which marks an improvement of 20 places. In the Value Reporting (Online) category, Starrag Group ranked 61st. Finally, in the 2016 Obermatt Ranking, an annual assessment of the performance of listed companies versus their peer group, Starrag Group placed 19th in the “operating performance” assessment of mid-cap companies.

## Change in the Executive Board

Marcus Otto was appointed to the Executive Board as Head of the Business Unit Transportation & Industrial Components in October 2016, having previously served as managing director of Heckert GmbH in Chemnitz on an ad interim basis since May 2016.

## Outlook

In our forecast of order intake for 2017 (in local currencies), we note that order intake reached an all-time high in 2016. From today's standpoint, we do not expect to match that record in 2017. Sales revenue (in local currencies) should, however, be well above the prior-year level, based on the latest trends in new orders. Finally, thanks to the strategic and operational measures referred to in various sections of the annual report, we expect the operating margin to be significantly higher in 2017 compared to 2016.

## Dividend

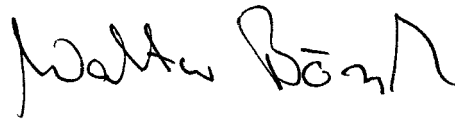
The Board of Directors will propose a dividend of CHF 1.00 per share at the Annual General Meeting on April 28 (CHF 1.20 in 2015). This corresponds to a payout ratio of about 75%, which is well above the targeted range of 35% to 50%. The dividend proposal reflects our commitment to a steady dividend policy and our expectations of significantly higher net income in the 2017 fiscal year.

## Thank you

Once again, we are very grateful for the untiring dedication of our employees throughout the past year. We also thank our customers and suppliers and, not least, you, our shareholders, for your enduring trust.



Daniel Frutig  
Chairman of the Board of Directors



Walter Börsch  
CEO



# At a glance

## Record-high order intake – order backlog for more than one year

- Order intake up 44% to CH 480 million
- Sales plus 2% to CHF 372 million
- EBIT -50% to CHF 7.4 million, operating margin 2%
- Net profit -52% to CHF 4.6 million, profit per share CHF 1.33
- Solid balance with 53% equity ratio
- Dividend payout of CHF 1.00 per share, dividend payout ratio 75%

	CHF m	2016	2015	Change
Order intake		480.3	333.4	44.0%
Sales revenue		371.6	363.7	2.2%
Operating profit EBIT		7.4	14.7	-49.8%
Net income		4.6	9.5	-51.8%
Earnings per share (in CHF)		1.33	2.78	-52.3%
EBIT as percentage of sales revenue		2.0%	4.0%	n/a
Net income as percentage of sales revenue		1.2%	2.6%	n/a
Return on equity (ROE)		2.5%	4.9%	n/a
Cash flow from operating activities		21.8	11.0	98.2%
Capital expenditure in fixed assets		19.4	22.3	-12.8%
Free cash flow		2.4	-11.3	n/a
Profit distribution per share (in CHF) <sup>1)</sup>		1.00 <sup>2)</sup>	1.20	-16.7%
Employees (average number of FTEs)		1524	1'573	-3.6%

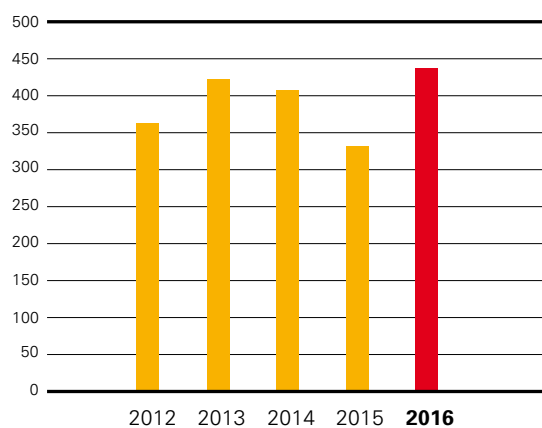
	CHF m	31.12.2016	31.12.2015	Change
Order backlog		348.3	237.8	46.5%
Total assets		349.6	341.5	2.4%
Net cash		-18.7	-15.9	17.0%
Shareholders equity		186.8	186.1	0.4%
Equity ratio		53.4%	54.5%	n/a

<sup>1)</sup> In the form of a (withholding tax-free) dividend payout of reserves from capital invested.

<sup>2)</sup> Proposal from the advisory board to the General Meeting.

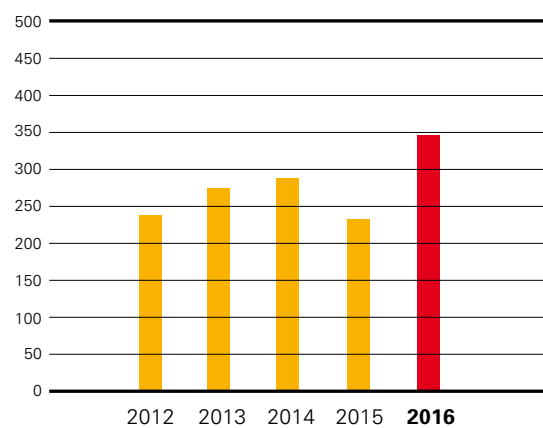
### Order intake

CHF m



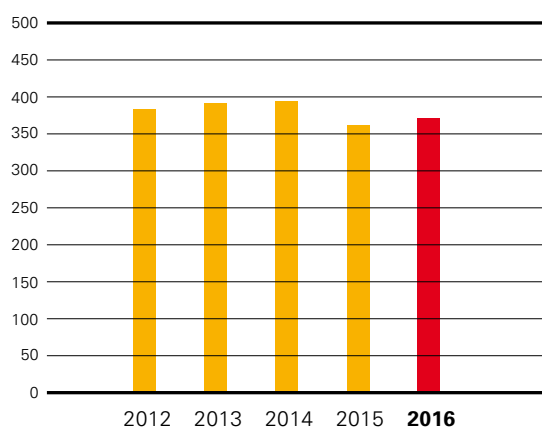
### Order backlog

CHF m



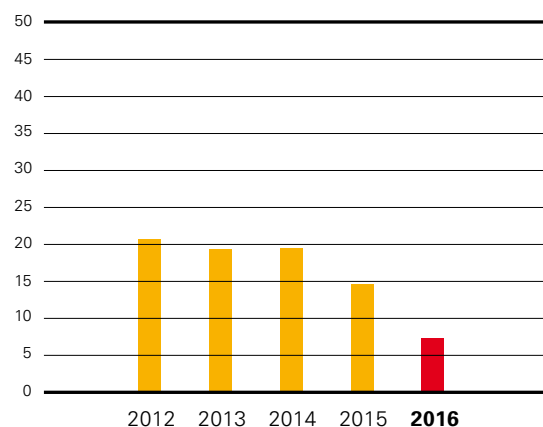
### Sales revenue

CHF m



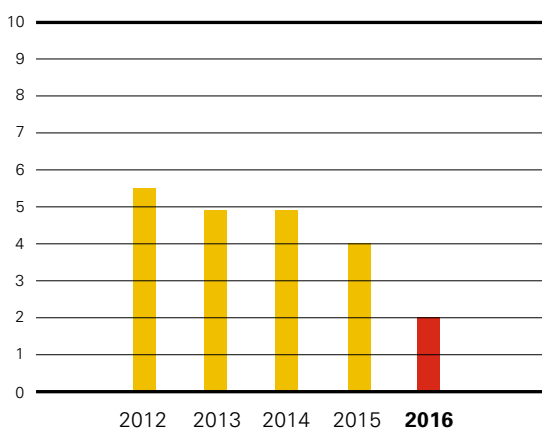
### Operating profit EBIT

CHF m



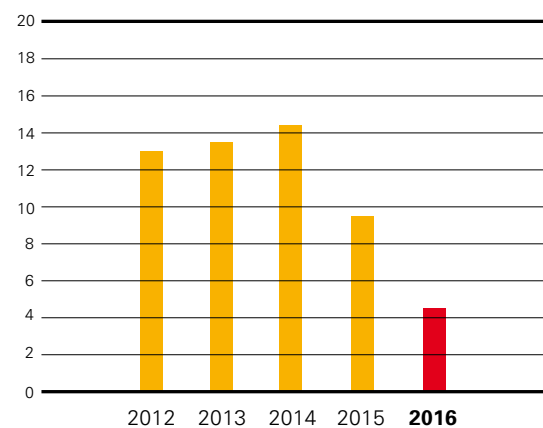
### EBIT as percentage of sales revenue

%



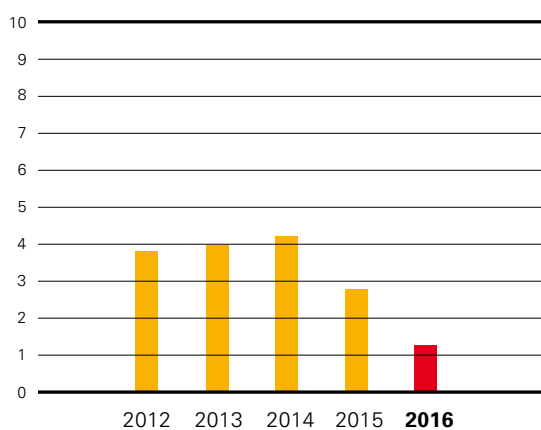
### Net income

CHF m



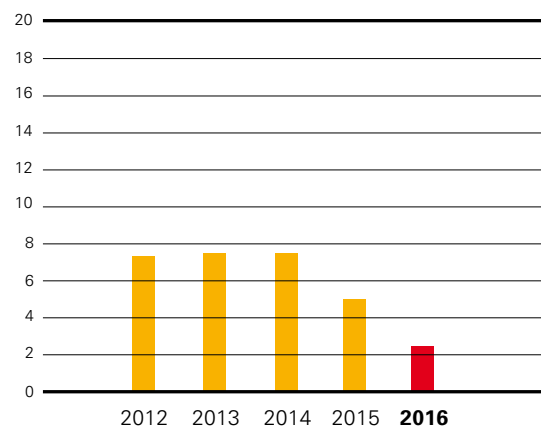
### Earnings per share

CHF



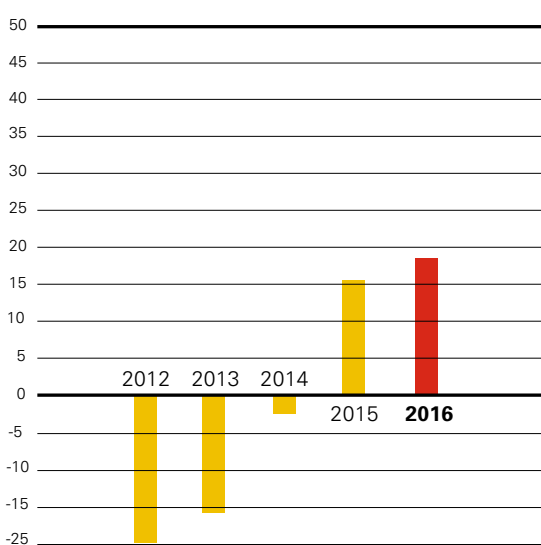
### Return on equity

%

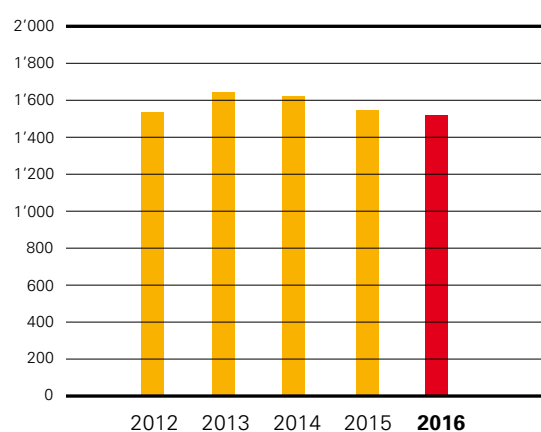


### Net cash

CHF m

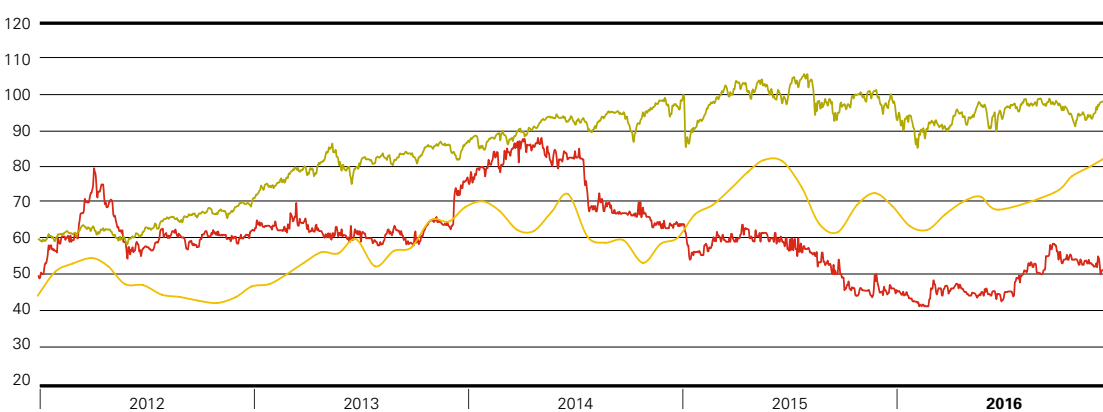


### Employees at year end



### Share price

CHF



# Highlights

## Focussed on customer benefits

The new HEC 400F, HEC 500F and HEC 630F Focus machining centres feature all the benefits of a premium product completely produced in Germany. They have been developed for customers who value strong performance data, reliability and long-term accuracy, yet have hardly any special equipment requirements and do not have extensive performance specifications - but would nevertheless like to make full use of the service and technology support.

The investment costs are 20% less and the delivery time 60% shorter. This means lower hourly rates and a faster start to production for the user. Furthermore, the Focus machines require around 10% less floor space.

The Focus machines are high quality premium machines on which only high performance, well-established modules are used.

All the assemblies are made in Germany and are also completely put together in Chemnitz. The control, monitoring, service and diagnostics systems are also up to date and equipped for Industry 4.0. The adaptive feed control, «Chatter Control», which ensures improved process reliability and reduced tool wear, is unique.

«This new development boasts 20% lower investment costs, 10% less floor space required and – last but not least – 60% shorter delivery time.»



## Efficiency and productivity increase for US customers

«To always deliver high-quality products to our customers on time» is the objective of the US company Orizon, which is creating a completely new production system at its Grove (Oklahoma) plant for making large structural components out of aluminium for the aerospace industry. For this purpose, the customer invested a sum in the tens of millions in six linked high-speed ECOSPEED F 2060 machining centres.

The installation will start in early 2017, with the first machine starting production in spring 2017. The system will then be expanded machine by machine until completion in January 2018. In order to ensure smooth production at all stages of the project, the Starrag Group will take care of the system start-up with the necessary technical support. Its engineers, working closely with the team from Orizon, will see to the complete assembly, commissioning and approval of the individual machining processes, ensuring that the system meets the customer's high demands.

In connection with this project, the two companies have also agreed on a fundamental cooperation framework in order to develop turnkey solutions for a series of workpieces based on time studies, tool selection and fixture design.

This major contract, alongside other market successes, once again confirms our position as a leading global supplier of machine tools to produce sophisticated components of all kinds for

«We are looking forward to the collaboration on this project, which will be a significant one for us. We are constructing a facility here in Grove that is the only one of its kind in the USA. With this investment we will be able to increase our efficiency and productivity and keep our promise to always deliver high-quality products to our customers on time», states Charlie Newell, CEO at Orizon.

the worldwide aerospace industry. This is borne out not least by the high share of incoming orders during the reporting year, secured with customers from this strategic target market.

In accordance with Starrag's guiding principle «Engineering precisely what you value», this results in a complete solution for the customer with maximum productivity, guaranteed availability and minimal risk that significantly increases the customer's competitiveness.

## Technology Days formula for success

The customer events held internally by the Starrag Group for some time under the name «Technology Days» have proved to be a successful model and are becoming a global rendezvous for experts from the relevant market segment.

During the reporting year, three such events took place, at which the Starrag Group presented its latest innovations and applications to around 500 representatives from industry, specialist media and universities, and used machine demonstrations and specialist presentations to create a forum for experts to exchange ideas and information. The Technology Days are thus evolving into a meeting place for the industry, offering the opportunity to exchange experiences and maintain and build networks.

At the Aero Structure Technology Days in Mönchengladbach, participants were shown the new ECOSPEED F1540 for the high-precision manufacture of aircraft structural components made of aluminium. The far-reaching concept for flexible production systems with cell controllers developed in house also attracted a great deal of attention.

The première of the new Focus machining centres was a highlight of the Technology Days in Chemnitz dedicated to the industrial and transportation fields. Besides the usual high performance values, reliability and long-term accuracy, their benefits include their low space requirements and much shorter delivery times.

Immediately after the presentation, buyers stepped forward for all twelve machining centres already produced. A second première was the new "Solid Rock" high-precision kit for machining centres. These are machine beds made of granite, which offer a unique level of temperature and vibration stability. This high-precision kit increases profitability thanks to a constantly stable production process (even with changing ambient conditions)

«In the case of this new series, strictly aimed at Total Cost of Ownership, we are implementing precisely what many of our customers need for their typical applications.»

and increases safety (low maintenance costs as a result of high long-term stability and low-wear ball screws). It also enables the user to produce high-precision workpieces in the micrometre range, acquire new customers and industries and thus grow.

At the Turbine Technology Days organised for what was already the fourth time in Rorschach and this time together with the German company Haimer, the participants were informed about the latest developments in the efficient manufacture of turbines for aircraft and power stations. For the customers it was important to discover the Starrag Group's holistic approach for the production of aircraft components. Using tailored tools and specially developed solutions, the Starrag experts can fulfil even highly individual customer requirements.



Experts from the aircraft industry visited the Aero Structures Technology Days 2016 in Mönchengladbach. The high-precision production of aircraft structural components made from titanium and aluminium was a major theme on the «shop floor» over the two days. One highlight: demonstrations on the 100th ECOSPEED120.





## Awards and nominations for the Starrag Group

During the reporting year, the Starrag Group once again received awards for its unique machining solutions and innovative strength. Two locations stood out in this respect. This shows that specialist journalists recognise that the group delivers on its promise «Engineering precisely what you value» and successfully focuses on providing the customer with a precisely tailored solution.



At the start of the year, FOGS from Bielefeld was nominated for the "Best of Industry Award", presented by the specialist German publishing house, Vogel Business Media. «Anyone who is even included here as a nominee has successfully put together a product and market vision», stated the publisher of the specialist magazine MM MaschinenMarkt.

Our colleagues from Bielefeld were able to win over the jury with their production solution in the machining category for the Austrian company Doppelmayr, one of the biggest suppliers in the ropeway construction field. The high-speed machining centre in the FOGS line machines segments for pulleys with diameters of up to 13 metres.

At the Doppelmayr «Hohe Brücke» plant in Vorarlberg, for example, pulleys were made in this way for the Galzigbahn valley station in St. Anton am Arlberg. With a diameter of nine metres, they are record-breaking – and not only for Doppelmayr.

«If we remove the partition used for set-up, we are able to machine components up to a length of 13 metres», explains the responsible department head, describing the extended production options, and therefore opportunities for growth, provided by FOGS.





But that is not all: in June, our Chemnitz site was named a TOP 100 company — the most important award for innovative medium-sized enterprises in Germany. The award was presented to representatives from the site by the well-known TV presenter, Ranga Yogeshwar, in Essen. For over 20 years, the organiser, compamedia, has given this award in recognition of companies «that act as innovators, break the rules and overcome all adversity». 366 companies applied for the award. The evaluation is based on scientific criteria to measure innovative strength and is headed by Prof. Dr. Nikolaus Franke from the Institute for Entrepreneurship and Innovation at the Vienna University of Economics and Business.

The Chemnitz site was given this award in honour of its technological leadership in the machining of cubic workpieces, in particular for applications within the transport industry and precision machine construction.

Over 100 parameters in five assessment categories were incorporated into the overall rating: innovation-promoting top management, innovation climate, innovative processes and organisation, innovation marketing/outward orientation and – last but not least – innovation success.

## Medical technology think-tank

The new TechCenter in Immendingen (Baden-Württemberg, Germany) looks back on a successful start. A five-strong specialist team helps customers to develop tailored production solutions for small, complex parts.



The focus is on the machining of implants and surgical instruments made of extremely sophisticated materials – cobalt-chrome, titanium, stainless steel and ceramic – with three high-precision machine tools, which machine components to a thousandth of a millimetre.

Marc Lehmann, Head of the TechCenter: «We are able to present a broad range of machining options to the customers. We use sample processing to optimise the machining process in order to obtain the fastest possible cycle times – whilst complying with the customer's process reliability and quality requirements, in keeping with our group-wide claim Engineering precisely what you value».

The TechCenter, which serves the German medical technology sector, among others, and functions as a service support centre for southern Germany, is also involved in the direct exchange of expertise with technology centres in Switzerland, the USA and China. It also relies on experience and knowledge from a portfolio of 500 machines, which have provided reliable service in watch and medical technology for years. In the «think-tank», efforts also focus on developing solutions for medical technology and precision engineering, which offer the customer genuine added value and enable the manufacture of custom products even in low quantities – down to a batch size of 1.

## Highly acclaimed trade fair appearances in Chicago and Stuttgart

The industry's major trade fairs, where the Starrag Group regularly has a stand, traditionally take place in autumn. In even years these are the IMTS in Chicago for the North American market and the AMB in Stuttgart for the European market. At both trade fairs, the focus in 2016 was on new products and innovations relating to the currently relevant topics of increased efficiency and Industry 4.0.

The Starrag Group had representative stands at both locations, featuring new product ranges to show off its technology and innovation strength, and was thus able to demonstrate the added value its solutions provide to the customer. At IMTS, the highly productive Sprint Z3 machining head, the heart of the ECOSPEED series, was the ultimate attraction for visitors. The patented Sprint Z3 head concept exceeds the efficiency of all common inclined axes and fork-type milling heads and allows the customer to achieve an increase in performance of up to 87%.

At AMB in Stuttgart, the HEC500D U5 MT and the HEC 800 X5 MT machining centres – both 5-axis solutions from Chemnitz – proved impressively that they are able to completely machine parts in one clamping position. This is another important prerequisite for reducing production times at the customer site. Depending on the component size, the complete machining function enables total machining time savings of up to 65%.

+87% increased material removal rate to effectively 12 L/min. are possible with the new spindle technology for the ECOSPEED series.



## Innovative service solutions

Motor spindles are directly driven, precisely mounted shafts with an integrated interface with the tool. They play a key role in metal removal. Their reliability and availability is decisive in terms of the quality of the workpiece being machined, productivity and work safety. If a spindle fails, this can be very dangerous. So, for quality assurance purposes, the Starrag Group relies on its own solutions and production for spindles and offers a three-stage inspection package over their entire lifetime.

The innovative inspection package covers three stages:

**Essential service package:** The Starrag Group replaces bearings, seals, rotary bushings and clamping sets on the spindles. The benefits for the customer include cost-effective repairs, inspection by qualified, trained personnel, exclusive use of original spare parts and a manufacturer's guarantee for twelve months or a spindle service life of 6,000 hours.

**Prime service package:** The Essential package includes a pro rata price for a total of 36 months or 18,000 operating hours. In other words, the price paid by the customer depends on the actual lifetime. Thanks to the availability guarantee, there is no need to buy a second spindle.

**Flat rate service package:** For a fixed annual fee, the customer gets the option of immediate replacement of defective spindles within 24 hour – with the advantage of budgetable fixed costs.

In addition to these service packages, the customer can rely on «Collision Protection». This protects machine tools from collisions, with the advantage of a marked reduction in spindle failures. Collision protection is also suitable for retrofitting of machine tools.



- + Cost security thanks to a flat rate for spindle replacement
- + Highest customer productivity due to fastest replacement in case of spindle failure (with latest technology)

## Successful training and development on all fronts

The in-house «Starrag Academy» for managers and specialist staff plays an important role as part of our training and development strategy. As part of this group-wide training programme, comprehensive development measures were initiated in the sales department at the start of 2016. This will enable the participants to approach our customers in an even more targeted manner and breathe life into our promise «Engineering precisely what you value» on the frontline.

The Starrag Group also attaches great importance to basic vocational training. The value of this commitment was demonstrated in previous years when the Rorschacherberg and Chemnitz sites received awards for their training. In 2016 the Mönchengladbach site was named one of the best training organisations in North Rhine-Westphalia.

The Chamber of Commerce and Industry (IHK) located there presents annual awards for the best in the state. In the reporting year, out of 75,000 apprentices in around 130 IHK professions, 265 young people finished their professional training with the rather rare top mark of «Very good». The production engineer Philip Risko was one of them.

The Chairman and Managing Director of the IHK commented: «They have achieved something remarkable and earned our thanks and recognition. This also applies to the training organisation, as they are inseparable: only companies with a high quality of training have excellent apprentices too.»



# Company profile

## Vision and strategy

Starrag Group, a leading manufacturer of highly productive and enduring comprehensive solutions for precision milling machine tools, is the partner of choice for multinational customers in its target industries of Aerospace, Energy, Transportation and Industrial. It offers an extensive range of high-end precision machine tools, enhanced and enlarged on a continual basis and backed by engineering expertise as well as maintenance and repair services, that is proven to generate significant and lasting productivity gains for the customer. Starrag Group is pursuing the following strategic objectives to make this vision a reality:

- Concentration on clearly defined market segments
- Consistent focus on customers and their individual needs
- Concentration on the top-quality segment and technological and service-oriented leadership
- Qualified and motivated employees
- High internal flexibility, particularly in difficult times
- Solid financial basis
- Innovative management

## Starrag 2020 Strategy

The Group must utilise its inherent growth and earnings potential more effectively to ensure sustainable attainment of the given mid-term sales and profit goals as quickly as possible. Under the recently introduced «Strategy 2020», we will therefore be focusing our resources even more sharply than before on those market segments and regions that offer the most promise, i.e., the best sales and margin potential. Optimisation of our market and product strategies within the same scope of business activities will strengthen our business model by prioritizing clearly defined market segments. At the same time, we will be accentuating our value proposition for customers in these market segments.

This strategy will entail intensified customer services, the accelerated execution of our digitalization strategy (Industry 4.0, see page 30), organisational and structural adjustments. Every business unit has been delegated full responsibility for its operating performance and results. In sales we will further unify our customer communication based on the «one face to the customer» approach. Cross-departmental centres of excellence will be created to promote the group-wide utilisation of department-specific expertise and additional investment into the business operations and in human resources are made. So, Starrag Group will stand out even more from the competition in terms of application competencies, technology expertise and services capabilities.

## Market positioning

The market position of Starrag Group is derived from these strategic elements and is summarized in the following claim:

*Engineering precisely what you value*

On the one hand, the claim expresses one of Starrag Group's most important core competencies: Engineering. Thanks to the outstanding abilities of our employees, we are able to manufacture machine tools for the premium quality segment that stand out due to their extremely high level of performance and precision. Precisely stands both for precision in this technical sense and for our consistent customer focus. We give our customers precisely what they want and value. What you value. No more, no less. We consistently focus our efforts on the customer and their needs in terms of profitability, safety and growth.

## Customer industries

As of 2015, Starrag Group's organisation and operations have been aligned more closely with its target customer groups, in keeping with its customer centricity claim. Products and services are concentrated on the four target industries of



Aerospace, Energy, Transportation and Industrial. These target industries are sub-divided into ten market segments, effective as of 2017.

## Aerospace

The industry of Aerospace includes the market segments Aero Structures, Aero Engines and Avionics.

### The Aero Structures market segment

Rising kerosene prices and increasing environmental awareness call for lighter, quieter, more cost-efficient and more economical aircraft with lower emissions and immissions.

For all manufacturers and their suppliers, this means ever-more complex and larger, integrated structural components. These must be manufactured reliably within narrow tolerances and within short cycle times under constant process monitoring. This is where our machines for heavy-duty cutting, high-performance cutting and complete machining are very much in demand. Our machines are used to manufacture highly stressed structural components such as landing gear components, critical primary structural components in the area of the fuselage, steering gear and wings.

### The Aero Engines market segment

When designing aircraft engines, the aim is always to achieve greater efficiency, reduce kerosene consumption and lower noise emissions.

This calls for ever-greater precision in the cutting of increasingly challenging raw materials for the production of turbine elements such as engine blades, blisks and casings. As a long-term partner to the engine industry, Starrag Group has the necessary expertise to achieve this.

In the area of engine reconditioning, the repair of blades and blisks plays an important role, since these are produced from very expensive raw materials and semi-finished products, making repair preferable to the production of new components. With the help of our software and engineering solutions, flow components such as these can be overhauled in a fully automated, reliable and cost-effective process.

### The Avionics market segment

Avionics is a collective term for the electrical and electronic systems used on aircraft and satellites. Flight control, management, communications and navigation systems are the main avionics systems in use today. Avionics systems are highly complex and extreme precision is required. Starrag's machine tool competencies in this market segment are in the areas of injection systems, combustion chambers, gyroscopes and flight control components.

## Energy

The target market of Energy includes the market segments Power Turbines and Oil & Gas.

### The Power Turbines market segment

When it comes to turbo machine engineering, no other company is more experienced in the machining of high-precision flow components than Starrag Group. The same applies to the production of complex housings for steam and gas turbines. The combination of multiple machining technologies in a single machine is also becoming increasingly important. The components to be manufactured must satisfy ever-stricter requirements; they are becoming more complex and are increasingly manufactured from materials that are difficult to machine.

### The Oil & Gas market segment

In the field of oil and gas exploration, large ball stop valves for gas and oil pipelines, complex boring heads and other safety components are manufactured on our machines. We are in a position to cover the entire value chain – from extraction and conveying (upstream) through transport and storage (midstream) to further processing and refinement (downstream). The spectrum of products and customers is similarly broad – from classical end products such as pumps, valves, fittings and compressors to boring equipment for the extraction of raw materials. Such products are also used in petrochemical plants, in the field of transport and water treatment, and in many other industrial sectors.

## Transportation

The target market of Transportation includes the market segments On-Road Vehicles and Heavy Duty Vehicles & Engines.

### **The On-Road Vehicles market segment**

This segment includes technical solutions for the production of high-precision vehicle components for cars, trucks, buses and motorcycles. The trend towards electric mobility has also opened up new application possibilities. The focus is on the series manufacturing of precision components such as cylinder blocks and heads, transmission housing, crankshafts and other drive train components. Customers attach particular importance to reducing unit costs. Thanks to automation solutions for handling workpieces between the different stages of machining, and the integration of test, cleaning and assembly systems and equipment, cost-effective holistic solutions can be achieved.

### **The Heavy Duty Vehicles & Engines market segment**

Starrag Group specialises in the machining of drive components such as transmission and engine components, axles and other prismatic chassis components. These are produced in a highly productive process, ideally in small- and medium-sized series. To reduce manufacturing times and increase workpiece quality, complete machining with the minimum possible clamping is becoming increasingly important. We have responded to this trend with the use of quills and our newly developed continuous swivel heads. In this segment, we concentrate on agricultural vehicles, construction machinery, railway technology and large diesel engines for stationary applications.

## Industrial

The target market of Industrial includes the market segments Industrial Components, Luxury Goods and Med Tech.

### **The Industrial Components market segment**

This includes components for machine tools, packaging machines, printing machines and plastics machines, as well as hydraulic and pneumatic aggregates. Here, too, there is a trend towards more complex workpieces. Optimised components call for new, innovative manufacturing concepts that simplify the production process with maximum precision and guaranteed quality, and which increase cost-effectiveness and are extremely flexible in operation. Starrag Group meets these requirements with machining centres that combine different machining technologies in a single machine.

### **The Luxury Goods market segment**

In the Luxury Goods segment, the spectrum of base materials ranges from hard ceramics to precious metals and stainless steel. Frequent changes in the manufactured products and ever smaller lot sizes require maximum manufacturing flexibility. As many machining steps as possible must be performed in the same clamping position in order to achieve the necessary precision and surface quality for the expensive end products. Starrag Group offers machining solutions for many watch and jewellery components.

### **The Med Tech market segment**

Cost pressure is high in the medical technology sector. Starrag Group helps to relieve this pressure by using fully automated, highly efficient machines to manufacture implants, medical instruments and dental components.

Our machining solutions enable the simplification of machining steps and shortening of the production chain while also guaranteeing that demanding technical safety and regulatory standards are met.



## Ten brands under one roof

As a result of organic growth and various mid- and larger-sized acquisitions since the turn of the century, we have built a solid portfolio of business activities covering a comprehensive range of technologies and competencies. Throughout our various stages of expansion, we have always followed the logic that new developments must effectively complement the old and thereby reinforce the competitiveness of the Group as a whole. This has made Starrag Group what it is today – a combination of ten precision machining brands under one roof, boasting a wide range of competencies that few rivals can match.

The trademarks of Starrag Group, including the corresponding figurative mark in red denoting high-precision machining capabilities, are registered and protected nationally and internationally. We will vigorously pursue our claims against any imitations, counterfeit products or patent infringements. Our trademarks are deployed across the full spectrum of corporate and marketing communications, specifically and systematically. Our best trademark ambassadors can be found in our installed base at customer sites around the world, where our machine tools substantiate our claim of engineering precisely what the customer values every day. The brands are also deliberately and systematically showcased at premier trade fairs with a high international standing; at specialized trade fairs with a strong regional attraction; and in «Starrag Star», the customer newsletter we relaunched in 2015. We assess perception of our trademarks in the marketplace during our regular contacts with customers.

### **Berthiez**

Maximum precision in vertical turning and cylindrical grinding: Outstanding solutions for the aircraft engine and roller bearing industry based on specialized vertical lathes and grinding machines.

### **Bumotec**

Multifunctional machine tools: High-precision complete machining of small workpieces in sectors such as watches and jewellery, medical technology and micromechanics.

### **Dörries**

Synonymous with powerful lathes: High-performance vertical lathes ranging from single-column machines with a turning diameter of 1.6 metres or more to large gantry machines with a 12-metre turning diameter, 10-metre turning height and workpieces weighing up to 450 tonnes.

### **Droop+Rein**

Maximum precision for large workpieces: Machine tools for machining large to ultra large workpieces (up to 250 t in weight) such as large format and bodywork machine tools, diesel engines, power plant components and large aircraft landing gear components.

### **Heckert**

The perfect balance between long-lasting precision and productivity: Scaled range of high-precision and highly productive horizontal machining centres for milling, turning and boring medium and high quantities of workpieces.

### **Scharmann**

Complete machining solutions with the shortest possible cycle times: Specialist solutions for heavy-duty cutting and the complete machining of extremely large workpieces based on high-performance, automatically interchangeable head attachments. High-performance cutting of integral components in the market segment of Aero Structures, known worldwide under the product name Ecospeed.

### **SIP**

Uncompromising commitment to precision: Jig boring machines and machining centres to meet the most stringent demands for accuracy of research institutes, aerospace companies, the aircraft industry and leading precision engineering firms.

### **Starrag**

Maximum precision flow components: Five-axis, robust and high tensile-strength machines with high metal removal rates for maximum precision manufacturing of turbines, compressor blades, impellers, blisks and complex structural components.

### **TTL**

The home of adaptive machining: Internationally renowned, software-supported manufacturing solutions for the machining and repair of components for gas turbines and aircraft engines.

### **WMW**

Machining centres for emerging markets:  
Horizontal machining centres for rapidly developing emerging nations.

## **Flexible production at eight locations**

Starrag Group manufactures its machines and production systems at eight production plants in Switzerland, Germany, France, Great Britain and India. They are all part of our production network. The system allows a balancing of capacities and risks. Our development and technology centres are also situated in these locations. This enables us to maximise our entire technological expertise throughout the Group.

## **Keys to success**

Sustainable commercial success has been the hallmark of the Starrag Group for many years but it cannot be taken for granted. Rather, it is the result of a number of strategic success factors that we continue to nurture consistently: individual customer focus, global presence, continuous innovation, methodical enhancement of efficiency, and profitable business activities, pursued with moderation.

### **Individual customer focus**

Starrag Group offers a high degree of custom manufacturing services to meet the individual and therefore widely varying requirements of its customers. Custom machines as well as system solutions that integrate various different machines into customer-specific flexible production systems are becoming trendsetters. In this sense, every machine that leaves our factory gates can be viewed as a new product.

### **Global presence**

Starrag Group is represented in all of the world's major industrial centres (Europe, Asia and North America). Our international customers value short and direct communication channels. Experienced local sales, application and customer service specialists are therefore familiar with local cultures and customs, and are in a position to respond rapidly. They ensure a close and lasting customer relationship based on trust. The global service team receives constant training and development and is being expanded. The global logistics system with its optimized transport routes and decentralised spare parts warehouses ensures fast and efficient parts supply. The very close contact with our customers, through to delivery and commissioning of the machines and thereafter, facilitates a full and ongoing review of customer satisfaction – especially since Starrag Group generally serves a relatively small number of large customers. Customer care is supported by a global CRM system.

### **Continuous innovation**

Measured as a percentage of sales, our investments in the development of new products, components and processes is usually higher than average for our industry as we aim to maintain and extend our technology leadership. We view market oriented innovation as the central driving force of our business. We operate research and development centres in Switzerland, Germany, France, Great Britain and India, and protect our technological developments with a broad patent portfolio.

Development work carried out by the Group is supported by close cooperation with our customers as well as leading technical universities and research institutes.

Professors Reimund Neugebauer (President of the Fraunhofer Society) and Christian Brecher (RWTH Aachen University), two university luminaries in machine tool engineering, are members of the Supervisory Board of one of our German subsidiaries.

#### **Methodical enhancement of efficiency**

The Group provides a common framework for ensuring high quality standards and generates synergies throughout the value chain – from product R&D and sales through to service. This includes, for example, the development of standard modular kits. Internally, this necessitates constant improvement of processes and procedures aimed at increasing productivity. This is the purpose of the Business Process Management solution, which simplifies and standardises processes wherever practical. Defined key processes are reviewed and improved at regular intervals. The most evenly balanced distribution of risks possible in terms of markets and regions, as well as a solid financing structure, are additional means of ensuring ongoing growth and innovation.

#### **Outlook: Creating value for the long term**

Starrag Group is striving for profitable growth in the interest of its long-term economic viability, braced by financial security and a stable shareholder base. We expect to achieve a multi-year average EBIT margin of least 8% over the business cycle. We intend to achieve and maintain that level through well-defined strategic positions and further improvement in our operational excellence, through greater operating leverage on rising sales volumes, and through disciplined cost management.

The company's growth in the recent past was marked by acquisitions. In the coming years, we will be focusing more on organic growth and the systematic exploitation of untapped synergy potential throughout the Group. Our medium-term sales growth target is at least 5% p.a. We intend to achieve this growth through the above-mentioned «Starrag 2020» strategy, in particular by scaling up and leveraging our competencies worldwide in business areas and markets where we have not yet attained the desired market position.

The share of sales generated with customers in Asia is expected to climb to about 50% of total sales over the coming years. Our concentration on organic growth does not preclude further acquisitions on a case-by-case basis. Acquisition targets must, however, meet our basic conditions regarding strategic fit, attractive market and product portfolio, and corporate culture compatibility. Our basic strategic goal of having a leading position in all four key target industries remains unchanged.

We want our shareholders to share in the Group's success through sustainable share price gains and by maintaining an attractive payout ratio of 35% to 50% of net income. We note that Starrag Group was the only listed machine manufacturer that reported consistently positive profits and made regular dividend payments throughout the latest recessions.

# Milestones in the company's history

1890

1910

1920

1950

1960

1970

1980

1990

1897

The company is founded in Rorschacherberg, Switzerland under the name "Henri Levy Mechanische Werkstatt" and manufactures threading machines for the textile industry.

1952

Post-war period: The company establishes itself as a manufacturer of turbine milling machines.

1998

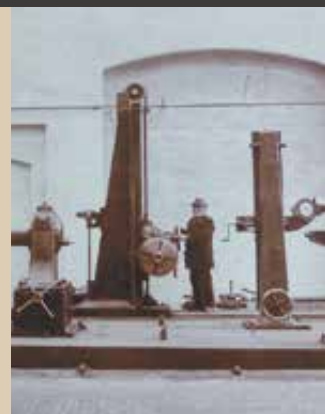
Stock-market listing and acquisition of Heckert in Chemnitz, Germany.

1921

The company is renamed Starrfräsmaschinen AG. Manufacturing of copy milling machines for automotive, aircraft and mould-manufacturing companies begins in the mid-1930s.

1973

The world's first five-axis milling machine is introduced by the company.



2000

2005

2011

2012

2013

2014

2015

2016

2002

Acquisition of TTL in the UK and SIP in Geneva, a company whose roots go back to 1862.

2012

Acquisition of Bumotec, Freiburg, Switzerland.

2015

Sales operations are reorganized with a focus on ten market segments within the four target industries of Aerospace, Energy, Transportation and Industrial, under the claim "Engineering precisely what you value."

2011

Acquisition of Dörries Scharmann Group, comprising Berthiez (Saint-Etienne, France), Dörries (Mönchengladbach, Germany), Droop+Rein (Bielefeld, Germany) and Scharmann (Mönchengladbach, Germany). Brand concept is updated and the company name is changed to Starrag Group.



# On the way to Industry 4.0

With its "Integrated Production System" developed in house, the Starrag Group has taken a decisive step towards Industry 4.0. For the customer this means networked production solutions, fully tailored to its individual needs, using modern information and communication technology. The result: higher profitability, improved safety, more growth.

From Industry 1.0 (mechanisation), 2.0 (mass production) and 3.0 (automation), we are now on our way to Industry 4.0. This new stage of development will shape the future of industry like never before. Ultimately it is all about integral linking of the entire value creation chain from the initial development idea through to the final recycling process, including the associated services for the customer at all stages.

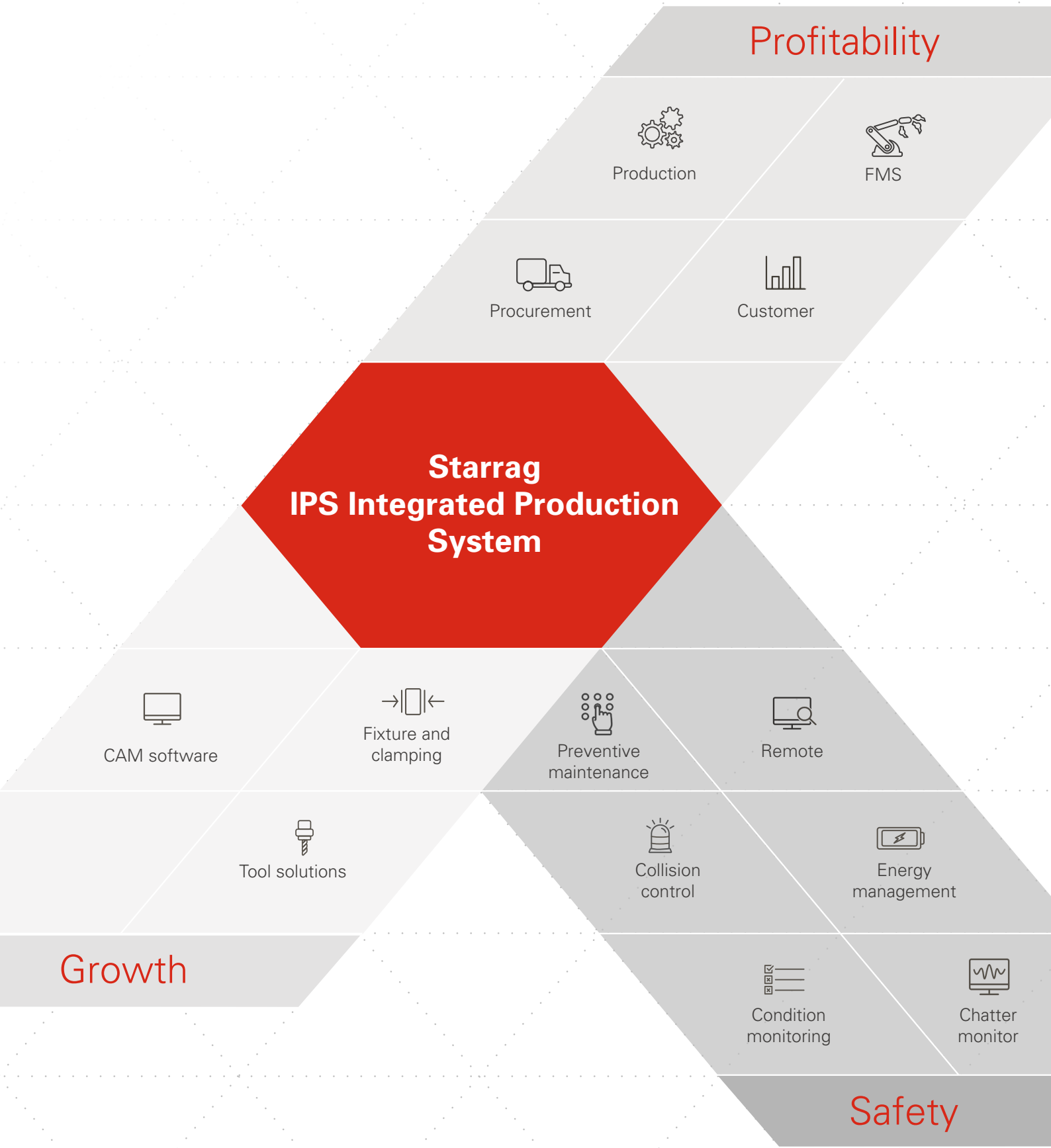
The Starrag Group has taken a decisive step towards this with its "Integrated Production System" developed in house. The customer can automate its production to the extent required, or may choose to take full advantage of all the options provided by the system. This begins with individual machines with add-on functions and moves on to flexible manufacturing systems (FMS) and even entire production lines. For each stage of expansion, modules adapted to each special task are available (see graph opposite).

The unique selling point and the basis for reliable production planning is the cell controller technology developed in house, which allows the production systems and lines to be controlled with a high level of process reliability (Starrag IPS - Integrated Production System). The cell controller monitors all the processes, thus ensuring digital transparency. It manages all the information relating to the production system centrally and passes this on, if necessary, to higher-level data processing systems via standard interfaces.

In the ultimate expansion stage, the customer only has to clamp the parts being machined onto the pallets. The rest happens fully automatically: from loading and storage of the raw material, to various machining steps and, finally, to unloading of the completed workpieces. All the data and resources are managed by the cell controller, which receives the orders directly from the end customer's ERP (Enterprise Resource Planning) system.

The interaction of the separate modules in the "Integrated Production System", which is aligned with the three pillars of customer orientation, provides invaluable benefits. Production reliability can thus be established by monitoring machine statuses, and maintenance and downtime costs can be reduced tremendously. There is also the option of continually monitoring and controlling energy demand and consumption, thereby optimising energy management. By better utilising their capacities and controlling production, companies can greatly increase their profitability or generate growth.

Humans also play a central role when it comes to Industry 4.0. They are, after all, the ones who ultimately control and monitor the production. This includes, for example, adjusting targets in certain situations, where necessary, be it in the plant or externally, using mobile devices. No machine can take this job away from humans yet. Occupational profiles are changing, however, because of the fact that simpler jobs are being replaced by more challenging and hence more satisfying tasks.







Solutions for  
Aerospace & Energy

# Turbine blades adaptively machined.

A flexible manufacturing system for the individual  
series machining of turbine blades.







FMS



Fixture and  
clamping



Collision control



Tool solutions

# Flexible manufacturing system

A state-of-the-art flexible manufacturing system at the Rorschacherberg site performs the finishing of precision-forged titanium turbine blades. In order to be able to produce up to 40,000 blades a year, for example, an individual milling program is generated for each blade on the basis of small component differences arising from the process.

There is a clear global trend towards flexible manufacturing systems, also called FMS. The aerospace and energy industry is increasingly taking advantage of the benefits offered by this type of automated series production, in terms of both quality and efficiency, in the manufacture of key components such as turbine blades.

The finishing of compressor blades for use in aircraft engines is a particularly impressive project.

## Highlight: adaptive milling

The Starrag technology team opted to use LX 051 machines for this purpose, a series of machines that was developed for the highly precise, simultaneous 5-axis machining of turbine blades. To achieve an optimum transition for each blade, adaptive milling was employed. This means that the milling process is individually adjusted for each blank. First, a measurement process is performed in the machine, during which the shape of each blank is scanned. Based on this data, an individual NC milling program is calculated for each blank and is then immediately executed. The result is a tailored transition between the edge radius and blade surface.

This adaptive milling is one of the system's highlights. It is important that the measurement process is performed very quickly to ensure high productivity levels are maintained. This has been achieved by using the latest scanning technology available on the market. The core competence lies in the field of machine tools, tools, equipment and the CAM system.

Dr. Markus Ess: «The blade production sequence is specified by the central cell controller using different priorities, which ensures the highest productivity.»



The reliability of the system was a key consideration during the planning stage. Ultimately, in the final configuration, up to 40,000 turbine blades will be produced per year. The designers therefore opted for a fully redundant set-up. The FMS thus consists of two lines with identical configurations. A 6-axis robot transports the components and also supplies the machines of the second line if needed. This results in high availability.

The entire system is controlled by a cell controller with a PPC system, and this controller also enables various emergency strategies. This ensures that the system can operate continuously for six days a week in three-shift operation. Even maintenance can be carried out during operation by stopping individual cell parts and using the redundancy. The unit in question is removed from cell controller operation with the click of a mouse and is then available for maintenance work or program tests.

The minimal contour differences arising from the forging of blanks, as already mentioned, mean that the Starrag Group still needs to rely on human assistance. Given that the entire process is otherwise virtually fully automated, this was not an easy decision, but the calculations showed that an operator-assisted set-up is the most efficient solution for this facility.

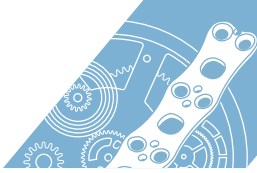
### Fully automated

The system has a total of four set-up points. Each point is equipped with a control PC that communicates with the cell controller. The blanks are already marked with a unique 2D code upon delivery. This code is recorded by the reading device upon set-up and is then transmitted to the cell controller. The blade production sequence is specified by the cell controller using different priorities.



Production reliability as a top priority: the reliability of the system was a key consideration during the planning stage.





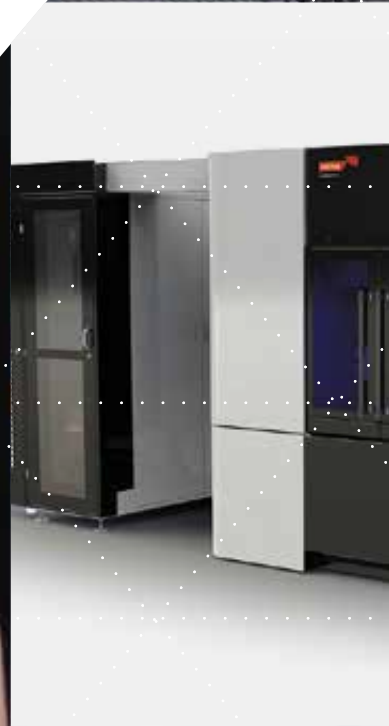
Solutions for  
Precision Engineering

# Ultimate flexibility for one-off or series production

With the S 100 multi, the Starrag Group offers a tailored solution for the series production of small precision parts.



Energy efficiency





Condition  
monitoring



Production data  
visualisation



Process monitoring

# 250% more productivity

There is a growing need within the industry for flexible, ergonomic and easy-to-program machine tools that deliver a high level of productivity and dynamism when milling from batch size 1 up to series production. Machine tools such as these overcome the disadvantages associated with having multiple operations on a set of single-spindle machines and the inflexibility of conventional transfer machines.

The S 100 multi has been developed with exactly these requests in mind. Thanks to the minimal amount of space the machine requires and the multiple tool magazines, the dynamic machining centre is a key solution for manufacturers needing to quickly produce highly accurate, ultra-precision parts up to a maximum size of 80 × 80 × 80 mm. Typical applications include components for the watch, computer and electronics industry.

This machine concept enables productivity to be increased by 250%, while maintaining the same floor space.

«In order to achieve high productivity, there are two options, in principle: increasing the stock removal volume or reducing the unproductive times. We have managed both on the S 100 multi», says Jean-Daniel Isoz, Member of the executive board of the Starrag Group: «The S 100 multi offers a perfect combination of high productivity, high precision and far-reaching flexibility». In each case, two milling spindles work simultaneously to achieve an extremely high level of precision within very short cycle times.

**Jérémie Ramelet, Software Development Engineer:** «Despite the arrival of Industry 4.0, the human factor still plays an important role.»



In bringing about this development, particular attention was paid to boosting energy efficiency. The short cycle times, in addition to measures such as energy recovery, highlight the efforts made to create sustainable production facilities.

Working together with specialists, special attention was given to achieving an ergonomic design that allows the user to gain easy access to the workpiece. The machine also features all the interfaces necessary for integration into a customer ERP system. For the overall system, consisting of machine, workpiece and tool, there is a choice of numerous control and monitoring devices. These modules improve process stability and operator convenience and save tool and maintenance costs.



The mobile machine monitoring tool provides a complete process monitoring system.

In this way, production experts perfectly complement the networked production facility when it comes to monitoring and controlling the production processes.

# 20%

higher energy efficiency







Solutions for Transportation  
& Industrial Components

# Innovative production for innovative products

Demand for increasingly large pumps is growing steadily. For production purposes, a fully automated manufacturing system with two machining centres is used.



Fixture and  
clamping





Vibration sensor



Condition monitoring

# 33% lower manufacturing time

Anyone wishing to succeed as a medium-sized pump manufacturer surrounded by large competitors needs to show they have something special. Innovations are the key to success - in terms of a company's own products, but also in terms of the equipment available for development and production.

«Even when the ideas are implemented in production, we are again reliant on employees who know how technically challenging components can be produced economically on modern machines». The fact that Herborner Pumpentechnik is well positioned on all of these points is demonstrated by its growing market share and the success of its new products.

## **Process reliability and availability – pillars of successful automation**

Part of the success strategy of Herborner Pumpentechnik is to continuously optimise the production processes. From an early stage, linking machines and pallet storage units appeared inevitable to the team in order to achieve unmanned night shifts and therefore remain competitive in Germany. So in 2008, the pump manufacturer put a fully automatic Liebherr manufacturing system into operation, which has now had two machining centres produced by the Starrag Group integrated into it, most recently an HEC 800 HV MT.

The system has proven its worth over the last eight years. This is largely attributable to the high level of process reliability and availability of the machining centres, without which reliable automated operation is not possible.

It incorporates various control and monitoring devices. As standard, these include a vibration sensor on the spindle, via which the machining process can be monitored and optimised.

As a result of complete machining in the manufacturing system, machining times have been reduced by up to a third.

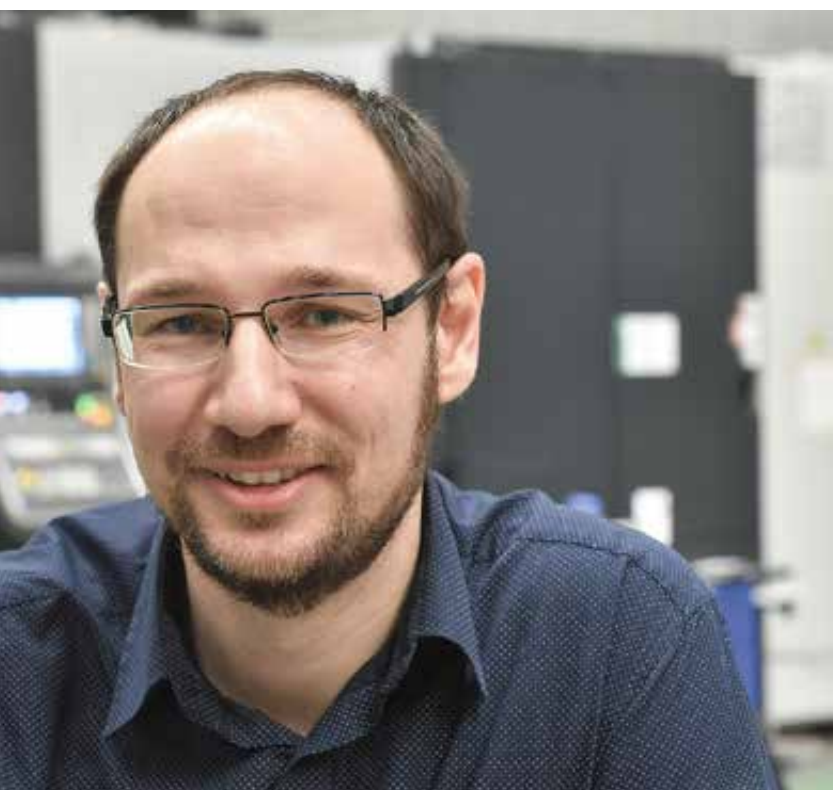


The sensor includes evaluation software that detects tools with a very high imbalance, just as it detects wear on the spindle bearings. This allows service work to be planned in advance and sudden failures to be avoided. As it also indicates vibrations during machining, the process can be optimised with regard to higher quality and longer service life of the spindle.

The high-precision NC rotary table with a load-bearing capacity of two tonnes provides another condition for internal machining of the large impellers thanks to its output of 57 kW (at 100% duty cycle), speed of up to 500 rpm and maximum torque of 2,520 Nm. An integrated program measures the imbalance

and indicates the position and size of the balancing weights required, so that the operator can quickly rectify the imbalance. This illustrates the modern style of interaction between man and production equipment particularly clearly.

Due to the entire kinematic system of the HEC 800 HV MT, the machining team at Herborner Pumpentechnik can now process numerous parts in a single clamping position instead of several as previously required. As a result, the customer saves up to a third of the machining time.



**Matthias Brand:** «The vibration sensor on the spindle provides the highest process reliability, which detects imbalanced tools as well as wear on the spindle bearings.»

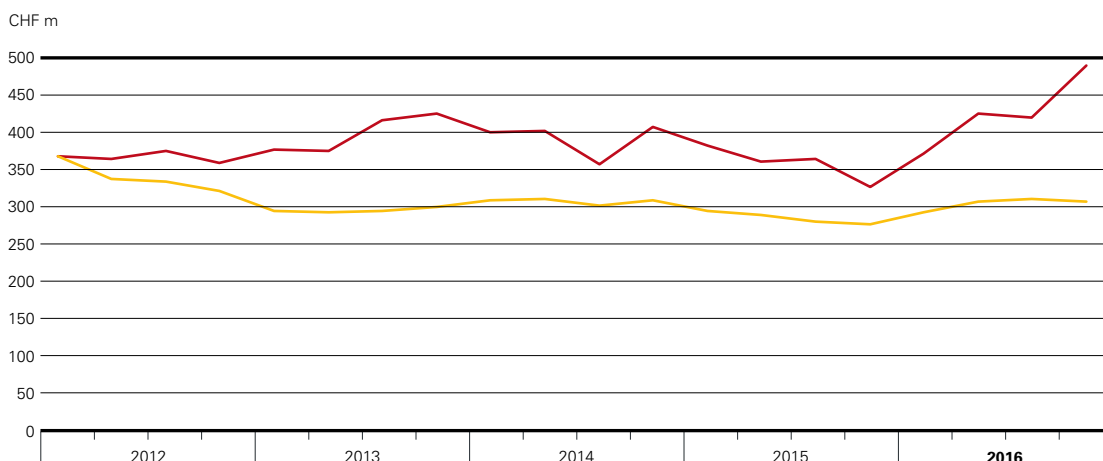
# Management Report

## A challenging year

Global challenges were no less daunting in 2016 than before, but Starrag Group managed to take in significantly more new orders than in the previous fiscal year, when order activity was lower than average. Operating results could not match the strong upturn in orders received. That strengthens management's resolve to intensify efforts on all fronts within the scope of the "Starrag 2020"

strategy (see page 22) to achieve the targeted profitability levels as quickly as possible, for example, by improving operational excellence and exploiting the operating leverage from the higher sales volumes. These efforts will be facilitated by the better prices achieved with the substantial increase in order intake during the year under review. Exchange rates were less volatile in 2016 compared to the preceding year, but the Swiss franc remains inordinately strong.

## Order intake by sector



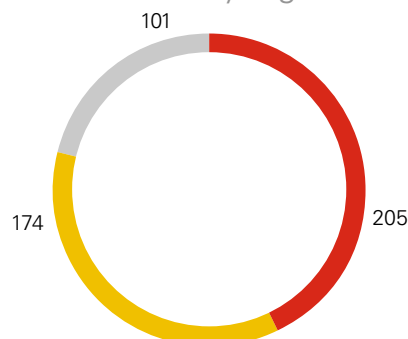
Starrag Group | Sector Germany indexed (Source: VDW)

## Increased order intake from almost every target industry

Breaking down order intake by industry, the Aerospace segment showed a significant increase, albeit from a rather low comparison base in the preceding year. New orders in the Industrial segment were likewise sharply higher, largely due to the acquisition of another reference project from a prestigious US customer in the second half of the year. This one order for several large machining systems in the mid-double-digit million range shows that our strategic focus on specific market

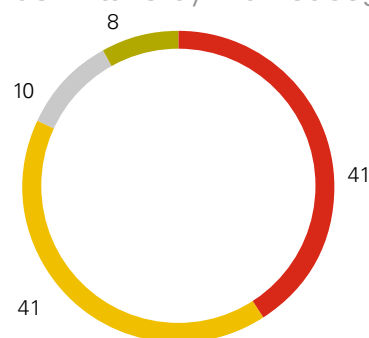
segments is producing the desired results. Order activity in the Luxury Goods segment remained subdued, particularly in the watchmaking industry. Transportation orders matched the year-ago level, while orders in the Energy segment rose for the second consecutive year. The Aerospace and Industrial segments remain the two main target industries; together, they account for just over 80% of the Group's total order intake.

## Order intake by region



	CHF m	2016	2015
Europe		205	196
Asia		174	105
America		101	32

## Order intake by market segment



	CHF m	2016	2015
Aerospace		200	116
Industrial		194	143
Energy		50	29
Transportation		36	45

## Almost 40% of new orders came from Asia

Orders were higher in all three of the Group's main market regions. Order inflow was clearly the strongest in Asia and North America, yet even Europe showed a year-on-year increase. The share of new orders originating in North America doubled to 20% of consolidated orders, is partially explained by the above mentioned large order in the mid-double-digit million range. Asia's share of total new orders rose to a record high of 36%. This growth confirms our previous statements that the percentage of sales generated with Asia-based customers would climb towards the 50% mark over a multi-year period.

Order backlog at the end of 2016 amounted to CHF 348 million, a substantial increase of 47% from the previous year (plus 46% at constant exchange rates). This backlog secures capacity utilization for well over one year (previous year: more than three quarters). Thanks to surge in

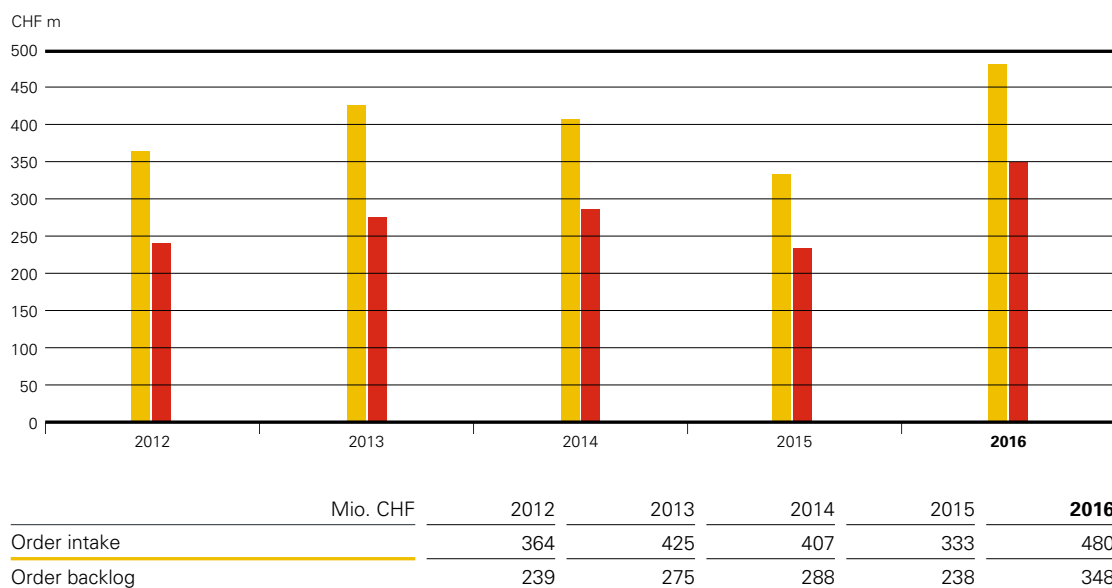
order intake, the book-to-bill ratio (the ratio of new orders to sales) rose well above the threshold of one and now stands at the very high level of 1.29 (previous year 0.92).

## Record-high order intake

At CHF 480 million, an increase of 44% from the below-average figure of CHF 333 million for the prior year, Starrag Group received more new orders in 2016 than ever before in its 120-year history. Factoring out exchange-rate movements, order intake increased by 43%. Production output in the global machine tool industry showed a slight decline in 2016, although German machine tool makers reported an overall increase in new orders of approximately 7% in 2016, according to VDW, Germany's national machine tool industry association. Starrag Group's sales for 2016 amounted to CHF 372 million, an increase of 2% from the previous year (CHF 364 million). At constant exchange rates, sales increased 1%.



## Trend of order intake and order backlog



## Operating result lower year-on-year

Earnings before interest and taxes (EBIT) amounted to CHF 7.4 million, which is far below the figure reported for the previous year (CHF 14.7 million). The EBIT margin declined to 2.0% (4.0% in 2015). Subdued demand from the watchmaking industry and cost overruns on a few orders are the main reasons for this earnings erosion. Due to the weaker operating results, net profit was likewise lower year-on-year at CHF 4.6 million (CHF 9.5 million in 2015), resulting in a net profit margin of 1.2%.

## Solid balance sheet

The equity ratio was a high 53% at the end of 2016 (previous year: 55%). Free cash flow amounted to CHF 2.4 million (previous year: CHF -11.3 million) and was boosted by advance payments received from customers. Net debt rose from CHF 15.9 million to CHF 18.7 million, mainly because of higher-than-average capital expenditures related to the construction of the new factory in Vuadens, Switzerland.

Investments in property, plant and equipment were almost unchanged from the prior-year level at CHF 19.4 million. This mainly reflects the construction of the new plant in Vuadens, Switzerland and maintenance and growth capex, particularly for IT projects for further business process optimization. In the year under review, the Starrag Group employed on average 1,524 (full-time) members of staff as well as 163 students and trainees.

## Continual innovation is vital

Innovation has long been part of Starrag Group's DNA. Only by offering cutting-edge, intelligent technologies and concepts that create maximum benefit for the customer can a company stay on top. In this regard, the trend in the markets addressed by Starrag Group is clearly moving away from standalone machines and towards comprehensive solutions in which all components and work processes are combined and connected within a single system using modern information and communications technology. Going one step further, we are now interconnecting our machine tools with the internal business applications of our customers. Starrag Group has thus positioned itself at the vanguard of the transition to «Industry 4.0» with its proprietary «Integrated Production System» (see pp. 30–31).

The Focus machining center within the HEC product line was one of the novelties Starrag Group introduced in 2016. It is designed for customers who want high performance, reliability and long-lasting-accuracy and do not need customized machining features, but would still like to benefit from the Group's full range of services and comprehensive technology support (see page 12).

Starrag was pleased to celebrate the delivery of a new flexible manufacturing system for adaptive production of turbine blades to AVIC, a Chinese aerospace and defense company, at its Rorschach plant in May. This new system creates an individual CNC program for every single turbine blade. Consisting of four intelligently linked processing centers, this new system can manufacture up to 40,000 turbine blades a year, which would have required 40 conventional turbine-making machine tools in the past. This system is perfectly attuned with the concept of "Industry 4.0" (Smart Factory).

In September, Starrag Group won a major contract with a value in the low double-digit millions from Orizon Aerostructure, a specialized top-tier supplier to the aerospace industry. This order marks a significant breakthrough in the strategically important US Aerospace segment. The Ecospeed-series machines ordered by Orizon Aerostructure offer the highest performance available in the market today and they will be connected to form a flexible manufacturing system that will allow it to manufacture aluminum aircraft structures at a much lower cost compared to conventional manufacturing methods (see page 13).

The new factory in Vuadens, Switzerland, was completed and opened on schedule towards the end of 2016 and is now fully operational. Centralization of manufacturing operations in a single large hall equipped with the latest technology has made considerable improvements in all work flows and processes possible and this will contribute significantly to Group-wide efforts towards operational excellence and efficiency.

Starrag has invited customers to its onsite «Technology Days» events for a number of years now. These events have become a highly successful platform and a meeting point for experts from around the world in specific market segments. Three such events were held during the period under review. They gave Starrag Group the opportunity to present its latest innovations to representatives from industrial sectors, trade journals and the media, and from the academic world (see pp. 14–15).

Last year Starrag Group also signed a cooperation agreement with Klingelberg Group, a global leader specializing in gear technology, to develop and produce a five-axis machine for full-spectrum machining of gear wheels within the scope of a joint innovation project. This new product will enable multiple processing steps to be performed on the same machine, creating considerable value added for the customer. The new machine will be marketed by Klingelberg and will be presented to the public for the first time at the EMO trade show in Hannover in September 2017. The two partners have also signed a sourcing alliance agreement.

As in previous years, Starrag Group also participated in the relevant major industry trade shows. In 2016, these were the IMTS in Chicago for the North American market and the AMB Stuttgart exhibition for the European market. Efficiency gains, Industry 4.0 and intelligent machinery peripherals were the highlighted themes at both trade shows (see page 19).



## Risk assessment

Please refer to page 93 for our holistic risk management process.

## Limited currency effects

In the wake of the flotation of the Swiss franc in January 2015, the Starrag Group has further reduced its dependency on this currency. Compared with the Swiss industry as a whole, our exposure to currency fluctuations is already less than average. Currently, 75% of our sales revenue comes from foreign locations; materials are sourced in the eurozone whenever possible. The share of costs incurred in Swiss francs amounted to 23% in 2016 (2015: 25%). Sourcing agreements will be renegotiated and stricter cost management will be imposed across the board in an attempt to further reduce this exchange-rate exposure.

## Outlook for 2017

The outlook for the coming 2017 fiscal year is fraught with a variety of external uncertainties – economic as well as political – that could have an impact on the investment plans of our customers. That said, worldwide order inflows in the machine tool industry have been increasing steadily for several years and it is not unrealistic to expect this trend to continue in 2017 – provided, of course, that there is no global shock that suddenly alters the general picture. VDW, the German Machine Tool Builders' Association, expects its members to report an overall increase in production output of 3%.

From a regional perspective, we expect order activity in the European market to remain subdued. We see no need to revise our successful strategy in North America, even in light of the new political forces in the US. The US remains a priority market for Starrag Group and sales has been strengthened in the country. Asia, a region where we have already established a strong position, is expected to deliver further growth, even though the key Chinese market is not expected to maintain the same high pace of growth as in previous years. China's desire to focus more on quality as a means of improving its international competitive standing bodes well for Starrag Group, because achieving this goal will require investment in higher-quality manufacturing assets.

Looking at the various targeted industries, we expect no fundamental change in the Aerospace segment, despite the very high level of orders received in this segment in 2016. As for the Industrial segment, order activity in the classic manufacturing industries should be on the positive side, but will probably remain slack in the luxury Goods sector, as was already the case in 2016. The picture for Transportation is mixed and a notable upturn in overall orders from this segment is hardly likely. The situation in the Energy segment has clearly recovered during the past two years and we expect this trend to continue in 2017.

In our forecast of order intake for 2017 (in local currencies), we note that, order intake reached an all-time high in 2016. From today's standpoint, we do not expect to match that record in 2017. Sales revenue (in local currencies) should, however, be well above the prior-year level, based on the latest trends in new orders. Finally, thanks to the strategic and operational measures referred to in various sections of this annual report, we expect the operating margin to be significantly higher in 2017 compared to 2016.

### Strategic focusing continues

In the past two years, our focus during the course of a structural reorganization was on strengthening our sales forces in various market segments and rounding out a comprehensive, integrated product portfolio. Now, under the «Starrag 2020» strategy, the top priority will be to sharpen our focus on the market segments and regions that offer the best growth and margin potential (see page 22). Key words here are intensified customer services, accelerated execution of our digitalization strategy, organizational/structural adjustments and simplifications, and stepped-up investment in business operations and human resources.

Together with the steady stream of new or refined products and services and our continual cost-cutting efforts, we are well-positioned to achieve our mid-term sales and profit targets. In more specific terms, sales are expected to grow by at least 5% with an operating profit margin of at least 8%. Both targets are multi-year averages across the cycle.

# Comprehensive understanding of sustainability

The industrial and social commitment of the Starrag Group is set up for the long term. We maintain an open dialogue with all stakeholders and consider their needs in a balanced way. Measures to enhance sustainability are based on the economic, social and ecological environment.

## Result-oriented corporate culture

Economic sustainability is based on a result-oriented corporate culture and is intended to increase the enterprise value in the long-term to the benefit of all stakeholders. We refer here to the measures illustrated at various places in this annual report comprising all divisions of the company.

## Employee-oriented HR policy

The success of the Starrag Group is essentially based on committed employees who are motivated by working in an open and modern environment and striving to deliver a top performance. The central elements of our leadership culture are therefore mutual trust, respect, regular exchange of information, cooperation, appreciation and promoting the continued development of the individual employee.

The Starrag Group is valued as an attractive employer. Whatever their area of expertise, all our employees come into direct contact with our products at various stages in the value chain and can derive the benefit for the customer as a result. This creates a natural identification with their own work. Our employees are proud to play an active part in delivering high-tech solutions to the customer based on the wealth of know-how in the workforce at every step from design to onsite maintenance around the world.

Periodic employee surveys conducted by «Great place to work», an external consultancy that specialises in workplace culture assessment and employee surveys, bolster our confidence that we are taking the right approach. The next employee survey takes place in the 2017 fiscal year. These surveys convey valuable signals on ways to improve and enhance working conditions in and around the workplace, leadership performance, information and communication, and training requirements.

The Starrag Group undertakes a variety of efforts to increase employee commitment for achieving the company's target. Employees and employees' representatives are regularly informed by their managers, the site managers and at least once a year also by the CEO personally, at all locations, about the current state of business current topics and projects. Furthermore, the customer magazine «star», which is also distributed worldwide twice a year to all employees, provides more in-depth information from the various locations and markets. Active communication is also supported by means of periodical newsletters for the various operating sites that provide information on recent orders, major R&D projects, personnel issues and topics of cultural interest. The high level of employee satisfaction results in an attrition rate over the years well below the industrial average.

We place special emphasis on maintaining our employees' skills and expertise. In the scope of annual formal employee performance review and target agreements, additional training and skills development needs are established. The courses provided by our Starrag Training Center are particularly valuable in supporting our management level employees in the planning and realization of professional development

measures for their staff. In recent years, the Center has bundled numerous training and skills development options and made them available in the form of a professional development catalogue. Courses offered include not only technical training such as control technology and maintenance courses for our processing centres, but also language and software education. We continued our efforts to establish a uniform understanding of management's role this fiscal year through the Group-wide training program for all management-level employees: the «Starrag Leadership Academy». In small groups involving employees from different locations and functions, our managers experienced a constructive analysis of various aspects of management and were able to exchange their experiences. Active Executive Board support of the management program significantly strengthened Group and hierarchy spanning cooperation among all management level employees and helped integrate new management-level employees in the Academy. In the reporting year, we also focused on enhancing the training of the skilled workers. In doing so, we concentrated on the active construction of succession planning for retiring skilled workers and the further improvement of internal professional training. In our case, further training on the job is equally important, since certain skills and knowledge can only be acquired during the day-to-day business, learning how to deal with issues that cannot be taught in the classroom.

Our in-house vocational training programme plays a key role in acquiring skilled specialised employee. In 2016 163 apprentices and students are enrolled in our programme, which encompasses more than 10 professions (prior year 159). All of our production locations feature modern vocational training centres in which our apprentices receive an educational foundation. In the reporting year, we made targeted investments in production learning machines for the training centres and further

expanded innovative course content. To improve apprentice quality, open days were held in 2016 in the training centres for secondary school pupils, students and other candidates. Apprentices who complete their apprenticeship with good scores are retained if possible. In the reporting year, the Mönchengladbach site received an award from the Chamber of Industry and Commerce as one of the top training facilities in the Central Lower Rhine area.

In the framework of systematic health management, safety in the workplace and the health of our employees have the utmost priority. Our objective is to continuously improve the working environment, beyond what is required by occupational safety and health legislation. At the production locations, we compile relevant health and safety indicator statistics on a monthly basis and derive location-specific measures based on analyses of the data. Accident figures and sick absences remained at low levels also in 2016; no serious incidents involving employees were recorded. The numerous measures implemented in previous years in the areas of safety in the workplace, health management and working atmosphere were systematically continued in 2016. A number of nutrition, healthcare and physical activity measures at the various sites are designed to enhance employee well-being. Our company sporting events such as the annual skiing day, bike-to-work event and company fun run were again immensely popular.

## Product energy efficiency as a central starting point

The main starting point for a greener approach in our corporate group is the energy consumption of the machines we deliver to customers, where they will be in operation for decades. In the past, and especially in regions with low energy prices, only little attention was paid to energy consumption. We expect energy consumption to play a greater role in terms of overall production costs in the future. The energy efficiency of machine tools could become one of the most important factors in the calculation of economic efficiency over the life cycle of a machine system. Therefore, the Starrag Group decided early to participate in the «Blue Competence» campaign of the European association of machine tool builders CECIMO and the two national industry associations German Machine Tool Builders' Association (VDW) and Swissmem. This programme targets increased energy efficiency and sustainability in manufacturing technology, and will introduce the relevant recommendations into the development of new products. The main driver for energy efficiency in the machining of work pieces is however cycle time. Since the Starrag Group's entire machine portfolio sets itself apart from the competitive environment by its higher machining performance and subsequently reduced production times, an investment in our machinery is particularly efficient to achieve energy-savings.

Under our own eeMC (energy efficient Machining Center) label, the entire range of machine systems were made more energy-efficient. Typical measures introduced range from implementing energy-efficient engines to minimizing the base load loss and using frequency-controlled pumps as well as the regeneration of brake energy. The machine illumination is still based on energy-efficient LED lights. Starrag machines are specifically designed to maintain their high precision over a wide range of temperatures reducing the need for energy consuming air conditioning of production plants.

Collaborating in national and international standardization committees such as «Energy efficiency in machine tools» and the related defining of the new ISO standard 14 955 has been an important priority for us. Participating in research projects in various countries to increase the energy efficiency of machine tools means that we can quickly introduce new discoveries and technologies into product developments. The focus is on cost-savings in the energy consumption of machine tools, in particular making progress in terms of drive systems, cooling lubricants, mechanical drives and stand-by and warm-up settings to reduce the required preheating time. A significant potential to reduce energy consumption without affecting quality and functionality leading to a more intelligent production technology could be identified. The energy-saving potential over time to be attained across the entire production process and infrastructure is clearly in the double-digit percent range.

## Continuous improvement of environmental performance

The Starrag Group is continuously implementing measures to improve its environmental performance at all business and plant locations. This includes ensuring that our own production processes are always energy efficient and minimizing effects on the environment. For all projects involving investments, as well as maintenance, upgrade and renovation of buildings, environmental aspects are always observed alongside cost / benefit considerations. Energy consumption in 2016 was 22,100 MWh, slightly below the levels of the previous year and marking the lowest levels for many years.

The ISO 50001-based certified energy management system introduced in 2015 at the Bielefeld, Chemnitz and Mönchengladbach production sites is expected to boost Starrag Group's energy efficiency by tapping into unused energy efficiency potential, lowering energy costs and reducing greenhouse gas emissions (including carbon emissions) and other environmental impacts.

Specifically, we implemented measures to raise energy efficiency at a number of sites in the reporting year, including measures to optimize compressed air supply, installing energy-efficient LED technology in more production areas and investing in energy measurement technology to identify further ways to generate savings.

Approximately 1,000 MWh of electricity was produced and fed into the grid in 2016 following the startup of the 8,250 m<sup>2</sup> photovoltaic plant at the new Vuadens production site in the second quarter of 2016. The photovoltaic plant at the Rorschacherberg site produced about 100 MWh of electricity in 2016.

The company's own paint shops use environment-friendly water-soluble paints rather than solvent-based paints wherever possible. Recyclable materials and waste such as oil, grease and chips are reused as part of a systematic recycling process. In addition, splitting systems for cooling lubricants ensure that these materials are disposed of properly or returned to the system for re-use.

# Corporate Governance

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# Group structure and shareholders

## Management organisation

### Board of Directors

Daniel Frutig, Chairman  
 Prof. Dr. Frank Brinken, Vice-Chairman  
 Prof. Dr. Christian Belz  
 Walter Fust  
 Adrian Stürm

### CEO

Walter Börsch

### Aerospace & Energy

Dr. Norbert Hennes

#### Market Segments:

- Aero Engines
- Aero Structures
- Avionics
- Oil & Gas
- Power Turbines

#### Brands:

- Berthiez
- Dörries
- Droop+Rein
- Scharmann
- Starrag
- TTL

### Transportation & Industrial Components

Dr. Marcus Otto

#### Market Segments:

- Heavy Duty Vehicles & Engines
- Industrial Components
- On-Road Vehicles

#### Brands:

- Heckert
- WMW

### Precision Engineering

Jean-Daniel Isoz

#### Market Segments:

- Luxury Goods
- Med Tech

#### Brands:

- Bumotec
- SIP

### Customer Service

Günther Eller

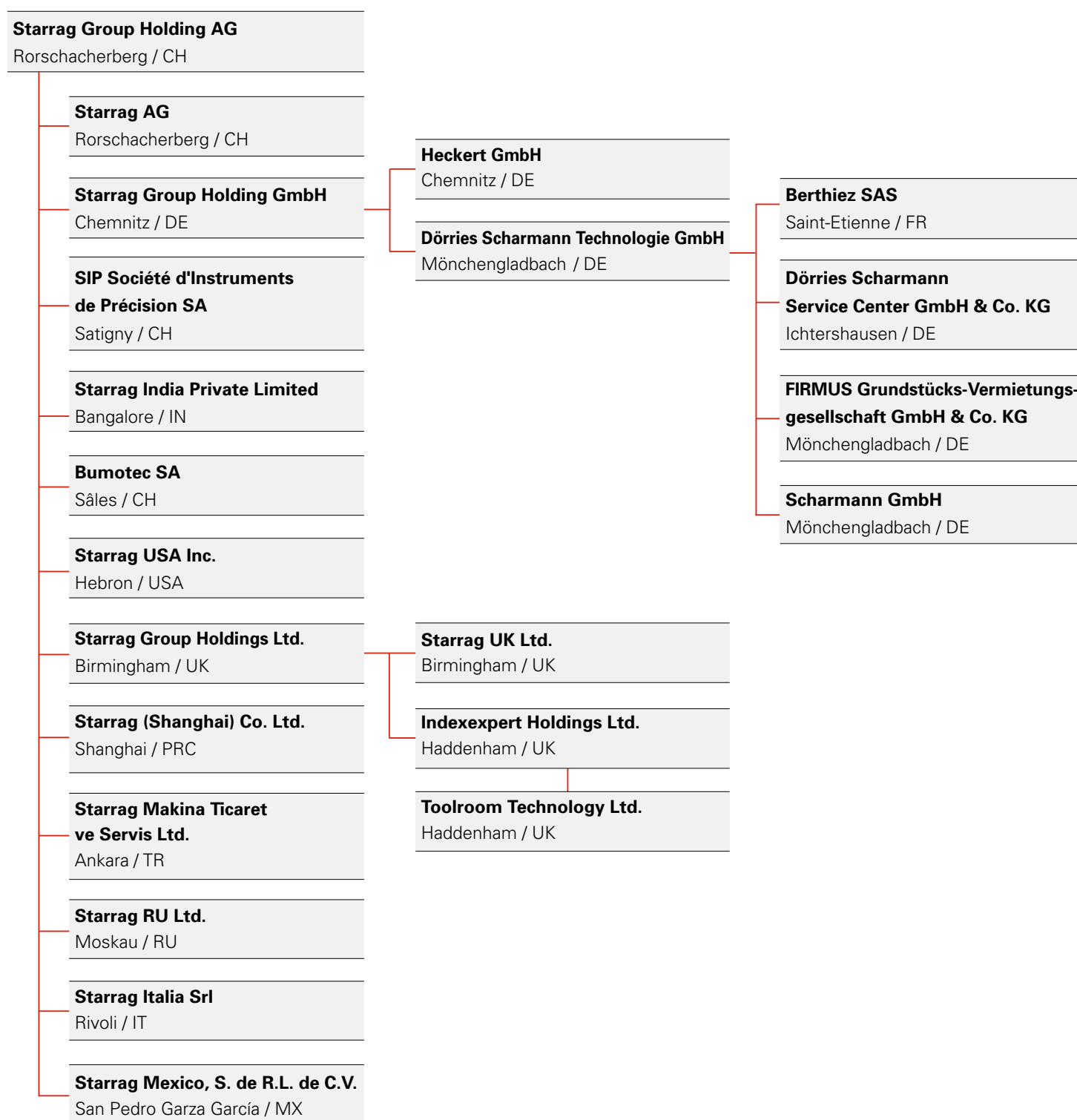
### Regional Sales

Walter Börsch

### CFO / Corporate Center

Gerold Brütsch

## Participation structure



The registered shares of Starrag Group Holding AG (hereafter referred to as the "company") are traded at the SIX Swiss Exchange (securities number 236106, ISIN CH0002361068, ticker STGN). The market capitalisation on 31 December 2016 was CHF 176.4 million.

## Shareholders

There were 890 shareholders registered in the company's share register on 31 December 2015. Distribution by number of shares held was as follows:

More than 100'000 shares	▸ 3 shareholders
10'001 to 100'000 shares	▸ 13 shareholders
1'001 to 10'000 shares	▸ 77 shareholders
1 to 1'000 shares	▸ 796 shareholders

307'357 shares or 9.1% were not registered in the share register on 31 December 2016.

The following registered shareholders each held more than 3 percent of voting rights:

- Walter Fust, Freienbach, Switzerland  
1'808'358 shares, 53.82%
- Eduard Stürm AG, Goldach, Switzerland  
311'079 shares, 9.26 %
- Max Rössler, Hergiswil / Parmino Holding AG, Goldach, Switzerland, 268'000 shares, 7.98%

No disclosure notifications were made during the 2016 financial year in accordance with Art. 20 of the Swiss Federal Act on Stock Exchanges and Securities Trading.

In earlier reporting periods the following current disclosure notifications were made in accordance with Art. 20 of the Swiss Federal Act on Stock Exchanges and Securities Trading:

- 29.09.2011: Max Rössler, Hergiswil / Parmino Holding AG, Goldach, Switzerland, 5.25 %
- 04.05.2011: Eduard Stürm AG, Goldach, Switzerland, 9.73 %
- 04.05.2011: Walter Fust, Freienbach, Switzerland, 54.88 %

Further information about the respective disclosure notifications is published on the website of the Disclosure Office of the SIX Swiss Exchange <https://www.six-exchange-regulation.com/de/home/publications/significant-shareholders.html>

The company is not aware of any pooling agreements between shareholders regarding the exercise of their rights as shareholders.

## Cross-shareholdings

There are no cross-shareholdings.

# Capital structure

## Issued share capital

The company's issued share capital amounts to CHF 28'560'000 and is split into 3'360'000 fully paid-in registered shares with a nominal value of CHF 8.50 each.

## Authorized share capital

The Board of Directors is authorized to increase the share capital up to a maximum of CHF 5'695'000 by issuing a maximum of 670'000 fully paid-in registered shares with a nominal value of CHF 8.50 at any time until 23 April 2018. A partial increase is permitted. Subscription and purchase of new registered shares as well as any subsequent transfers are subject to § 5 of the Articles of Incorporation.

The Board of Directors specifies the date of issue, the amount of issue, the kind of payment, the execution of the pre-emptive rights and the date of entitlement for receiving a dividend. The Board of Directors is able to issue new registered shares by a fixed acceptance of a bank or a financial syndicate and subsequent offer to the present shareholders. The Board of Directors is entitled to fix the amount of issue of the new registered shares as close as possible to the market value of the registered shares. In such case, the Board of Directors is authorized to restrict or bar trading in pre-emptive rights. The Board of Directors may allow unexercised pre-emptive rights to lapse. Additionally, the Board of Directors is allowed to use such rights and the registered shares for which pre-emptive rights have been with issued but not exercised in the company's interests or place them at market conditions.

Furthermore, the Board of Directors is authorized to restrict or abrogate shareholders' pre-emptive rights and allocate them to third parties in the event the registered shares are to be used as a means of payment in the acquisition of companies in whole or part, or for mergers, or for the exchange of shareholdings or the placement of shares as a means of financing such transactions.

## Conditional share capital

The company has no outstanding conditional share capital.

## Changes in capital

In the last three years under report, the share capital of Starrag Group Holding AG has not changed.

## Shares

Shareholder rights are stipulated in the Swiss Code of Obligations as well as in the company's Articles of Incorporation. Each registered share with a nominal value of CHF 8.50 has one vote at the Annual General Meeting. The right to vote can only be exercised if the shareholder is registered in the company's share register as a shareholder with voting rights. Distribution of profit can be decided upon by act of law by the General Meeting and can be carried out in relation to the amount of shares. The company's Articles of Incorporation are published on [www.starrag.com](http://www.starrag.com) (click on Article of association under Investors). It is possible to obtain hard copies from the company at any time.

### Participation and profit sharing certificates

The company has not issued any participation or profit sharing certificates.

### Limitations on transferability and nominee registrations

In general, there are no limitations to the transfer of shares. The registration of shareholders with voting rights or beneficiaries into the share register can be denied due to the following reasons:

- if the acquirer does not explicitly confirm that he acquired and is holding the shares on his own behalf, in his own interests and for his own account;
- if and as long as the registration of the acquirer may, based on the available information, prevent the company from complying with Swiss law requiring proof of Swiss control of the company.

Nominee entries are permitted (without voting rights).

### Convertible bonds and options

There are no outstanding convertible bonds or issued option rights.

## Board of Directors

**Daniel Frutig** (1962, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since 2014 and its Chairman since April 2015.

He is CEO of the international medical group Medela Holding AG, based in Zug/Switzerland, and a member of the Board of Directors of Eugster/Frismag AG, Amriswil/Switzerland. From 2011 to 2014 Daniel Frutig was CEO of AFG Arbonia-Forster-Holding AG. From 2005 to 2011 he headed the global Support Services Division of the British Compass Group, based in London, UK. From 2003 to 2005, Daniel Frutig was CEO of Swisscom Real Estate Inc., from 1998 to 2003 he served as Asso-

ciate Partner for the consultancy firm Accenture, ultimately as Global Head of Services & Technology. Before that, Daniel Frutig worked at Sulzer AG, where he began his professional career in 1987. Daniel Frutig graduated from the Lucerne University of Applied Sciences in 1987 with an engineering degree in heating, ventilation and air conditioning systems. He earned an MBA from the University of St. Gallen in 1994 and completed the Top Management Executive Program at INSEAD in Fontainebleau in 2004/05. He has never held an executive management position with Starrag Group and he does not have any significant business relationships with the Group.

From left to right: Prof. Dr. Christian Belz, Prof. Dr. Frank Brinken, Walter Fust, Adrian Stürm, Daniel Frutig



**Prof. Dr. Christian Belz** (1953, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since 2008.

He has been a tenured professor of economics at the University of St. Gallen since 1989 with a special focus on marketing and has headed the Institute of Marketing at the University of St. Gallen since 1992. He has never held an executive management position with Starrag Group and he does not have any significant business relationships with the Group.

**Prof. Dr. Frank Brinken** (1948, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since April 2014.

He previously served as CEO of Starrag Group since 2005. Prior to that he was Chairman of the Board and delegate President of Maag Pump Systems Textron AG in Zurich. After holding a position in research and industrial consulting at the Plastics Processing Institute (IKV) in Aachen, he joined Georg Fischer as Product Manager and then served as a Business Unit Head at Alusuisse-Lonza before accepting the position of CEO at Maag Pump Systems AG in 1995. Prof. Dr. Frank Brinken has been a member of the Board of Directors of Tornos Holding AG in Moutier, Switzerland since April 2011 and of Fastems OY AB, Tampere, Finland since 2015. He earned a degree in mechanical engineering at the University of Aachen and later completed a marketing program at the University of St. Gallen and an international management program at the Wharton Business School of the University of Pennsylvania.

**Walter Fust** (1941, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since 1988 (Chairman from 1992 until April 2015).

From 1997 to 2009 he was a member of the Board of Directors of Jelmoli Holding AG (Chairman until 2007), in which he held a majority shareholding from 1996 to 2003. He was the founder of Dipl. Ing. Fust AG, which was listed on the stock market in 1987 and subsequently acquired by Jelmoli Holding AG in 1994, which later sold Dipl. Ing. Fust AG to Coop in 2007. Walter Fust has been a member of the Board of Directors of Tornos Holding AG in Moutier, Switzerland since April 2014. Mr. Walter Fust holds a degree in engineering from the Swiss Federal Institute of Technology in Zurich (ETHZ). He has never held an executive position in Starrag Group and he does not have any significant business relationships with the Group.

**Adrian Stürm** (1970, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since 2008.

He previously worked in Controlling and Risk Management at UBS AG since 2001. Prior to that he was an auditor with KPMG Zurich from 1997 to 2000. He is a member of the Board of Directors of the family-owned company Eduard Stürm AG (Holding) and its subsidiaries Holz Stürm AG and Eduard Stürm Immobilien AG, which are all based in Goldach, Switzerland. Mr. Adrian Stürm holds a degree in economics from the University of St. Gallen (lic. oec. HSG). He has never held an executive management position with Starrag Group and he does not have any significant business relationships with the Group.



## Maximum number of permissible mandates

The members of the Board of Directors may hold not more than four additional mandates in companies listed on an official stock exchange and ten additional mandates in unlisted companies. The following mandates are not subject to the aforementioned limitations:

1. Mandates in companies that are controlled by the company;
2. Mandates held at the request of the company or companies controlled by it; no member of the Board of Directors or the Executive Board shall hold more than ten such mandates;
3. Mandates in companies that do not satisfy the requirements of Art. 727 para. 1 CO, and mandates in associations, foundations, charitable organisations, trusts, employee welfare foundations and other comparable structures; no member of the Board of Directors or the Executive Board shall hold more than fifteen such mandates.

Mandates shall mean mandates in the supreme governing body of a legal entity that is required to be registered in the Swiss commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control are deemed to be a single mandate.

## Elections and term of office

The members of the Board of Directors are elected annually at the Annual General Meeting. There are no term limits for Board members.

## Internal organizational structure

The Board of Directors shall constitute itself, unless otherwise provided by law. The Chairman shall convene meetings of the Board of Directors if and when the need arises or upon the written request of any other member. Except in urgent cases, calling notices for meetings are to be sent out five days before the scheduled date of the meeting, stating the items for discussion.

Minutes are to be kept of the discussions, and are to be signed by the Chairman and the Secretary. The Board of Directors appoints a Secretary, who need not be a member of the Board of Directors. A majority of the Board of Directors must be present in order for resolutions to be validly adopted. No attendance quorum is required for the sole declaration of the execution of a capital increase and the subsequent amendment of the Articles of Association. Resolutions shall be passed by a simple majority of the votes cast. In the event of a tie vote, the Chairman, who shall always cast a vote, shall have the casting vote. Resolutions can also be passed in writing by way of circular letter, provided no member requests an oral discussion of the item in question. Resolutions adopted in this way are to be included in the minutes.

There are usually six board meetings a year, each lasting about five hours. Members of the Executive Board will be called in to these meetings if and when necessary. Board resolutions and elections are decided by a majority of votes cast. In the event of a tie vote, the Chairman has the casting vote. Resolutions can also be adopted by way of circular letter, provided no member requests oral deliberations. During the 2016 financial year the Board of Directors held nine meetings and the average duration was 7 hours.

The duties and powers of the Compensation Committee are presented in the Compensation Report (page 75). The Board of Directors has not established any other committees. At our mid-sized company, the duties typically assigned to standing committees are performed by the Board of Directors as a whole. Moreover, the Executive Board regularly consults with the Chairman and individual directors on an informal basis regarding important aspects of specific topics.

### Definition of areas of responsibility

The Board of Directors has the overall responsibility for the management of the company as well as the supervision of the executive management. According to an organisation directive and the accompanying functions chart, the Board of Directors has delegated most of the responsibility for daily business to the CEO. The Board of Directors though, remains responsible for duties that legally cannot be delegated and other important business. These include in particular matters such as business strategy, approval of the budget, decisions with regard to acquisitions and important personnel matters.

### Information and control instruments vis-à-vis the Executive Board

Executive management control is exercised primarily through regular reporting by the Executive Board to the Board of Directors, in particular by means of:

- monthly and quarterly financial reports including commentary on the corresponding key figures (order intake, sales revenues, margins, profits, capex, liquidity, working capital);
- information about market and business developments as well as major projects;
- detailed information about market and business developments at every Board meeting, which are occasionally attended by the CEO and CFO and by other members of the Executive Board as required.

In addition, the Chairman of the Board of Directors discusses current developments with the CEO on a regular basis. Walter Fust and Adrian Stürm also exercise further control functions as members of the Supervisory Board of Dörries Scharmann Technologie GmbH and Walter Fust and Prof. Dr. Frank Brinken as members of the Board of Directors of Bumotec SA.

## Risk management

As one of the world's leading manufacturers of precision milling machines, the Starrag Group is faced with various risks, with the most important being:

- The weakening of the economic environment in customer markets and also of business cycles could lead to a reduction in demand;
- Misjudgements of developments in customer markets or in the competitive environment could lead to missed business opportunities or losses;
- Failure in research and development and other innovation-based activities could prevent business potential from being realised,
- A lack of availability of financial resources could have an impact on the performance and operations of the Starrag Group and
- Natural occurrences (such as fires) can have an influence on operating activities.

The Board of Directors and management give high priority to the careful handling of strategic, financial and operational risks. The Starrag Group has a holistic risk management process which is analysed every year by management and the Board of Directors, with the following aims being pursued:

- Systematically identifying special risks,
- Establishing processes to monitor, reduce and ideally to prevent risks and
- Finding the right balance between risks and opportunities.

The risk management system is based on a classic risk matrix involving the probability of occurrence and possible extent of damage (identification and classification) and includes internal guidance as well as a risk log, in which operational data as well as action planning for risk management are documented.

The Executive Board appointed a risk management representative for the moderation and implementation of the risk management, which reports directly to the CFO.

In the annual risk review there is a diligent identification, assessment, analysis and evaluation of risks and appropriate measures are defined to reduce the risks. This information is documented in a group wide risk matrix. The implementation of the measures is monitored by the risk management representative. In business processes with recurring risks the measures are integrated as process steps in the operative processes of the daily business.

On an annual basis, the Executive Board reports nature, extent and assessment of significant risks and the measures taken for risk minimization to the Board of Directors. Risks in accounting and financial reporting are monitored and reduced by an adequate internal control system.

Additional information on financial risk management can be found on page 93.

### Internal auditing

In accordance with the simplifications stated in the Swiss Code of Best Practice for Corporate Governance, the Board of Directors has decided not to implement an internal audit.

The codex implies certain simplifications for medium and small companies as well as for companies with active majority shareholders.

# Executive Board

## Members of the Executive Board

The Board of Directors has appointed an Executive Board and has specified its authorities and duties in the organizational guidelines and the accompanying functions diagram:

From left to right: Dr. Norbert Hennes, Jean-Daniel Isoz, Walter Börsch, Gerold Brütsch, Dr. Marcus Otto, Günther Eller





**Walter Börsch** (1959, German) has been CEO of Starrag Group and Head of Regional Sales since 2014.

He previously served as Head of the former Business Unit 1 from January 2012 to the end of 2013 with responsibility for the Starrag brand in Rorschacherberg (Switzerland) and as well as for the TTL subsidiary in Haddenham (UK). Prior to that he held the position of Head of Operations at Starrag Group since 2007 and from 2005 to 2007 Mr. Walter Börsch was Head of Sales and Engineering at an internationally active machine tool manufacturer. From 2000 to 2004, he headed a business unit of Hüller Hille GmbH. Prior to that he held various management functions in that company's development, sales, customer service and sales departments, beginning in 1987.

Walter Börsch holds a Master's degree in mechanical engineering from Aachen University and also completed a marketing program at the University of St. Gallen.



**Gerold Brüttsch** (1966, Swiss) has been Chief Financial Officer (CFO) of Starrag Group since 2000 and since 2005 Deputy CEO and Head of Corporate Center.

Mr. Brüttsch previously served as Chief Financial Officer of an international machine manufacturing company and as an auditor with KPMG in Zurich and San Francisco.

Gerold Brüttsch is a graduate of the University of Applied Sciences in St. Gallen and earned his degree in business administration in 1990. He is a Swiss Certified Accountant and U.S. Certified Public Accountant.





**Günther Eller** (1960, German) has been Head of Customer Service at Starrag Group since 2007.

He previously held various management positions at OC Oerlikon in sales and customer service beginning in 1986. From 2001 to 2006 he was Managing Director of the Business Unit Customer Service of the company's Data Storage Division. He served as Managing Director of a sales and service subsidiary for OC Oerlikon's machine business from 1995 to 2001 and prior to that held various sales and key account management positions.

Günther Eller has a degree in engineering physics.



**Dr. Norbert Hennes** (1964, German) has been Head of the Aerospace & Energy Business Unit since 1 January 2015, with responsibility for the brands Berthiez, Dörries, Droop+Rein, Scharmann, Starrag and TTL covering the market segments Aero Engines, Aero Structures, Power Turbines, Large Components and Oil/Gas/Fluids.

He had previously managed the former Business Unit 3 in Mönchengladbach with the brands Berthiez, Dörries, Droop+Rein, and Scharmann since January 2011. In 2002 he was appointed head of engineering at Dörries Scharmann, from 2005 on with responsibility for production and sales, and in 2006 he assumed the position of CEO of Dörries Scharmann. From 1999 to 2002 he held various management positions with Dörries Scharmann in development and construction. Dr. Norbert Hennes has been a member of the Board of Directors of Jagenberg AG in Krefeld (Germany) since May 2014.

Dr. Norbert Hennes studied machine tool engineering at Aachen University, earning a post-graduate degree from the Laboratory for Machine Tools and Production Engineering (WZL).



**Jean-Daniel Isoz** (1959, Swiss) has been Head of the Precision Engineering Business Unit since 1 January 2015, with responsibility for the brands Bumotec and SIP covering the market segments Luxury Goods, Micromechanics and Med Tech.

Before he was responsible for the former Business Unit 4 with the brand Bumotec in Sâles (Switzerland) and SIP in Geneva (Switzerland). Prior to that, he had served as Managing Director of SIP Société d'Instruments de Précision SA since 2006. After first working as sales manager for SIP from 2000 - 2002, he took over as CEO of Bula Machines until end 2005. Previously, he had acquired 15 years of experience in various management positions in production and customer services for Bobst SA in Lausanne, USA and Asia.

Mr. Isoz holds a degree in electrical engineering and has completed Finance and Marketing programs at INSEAD in Fontainebleau, France.



**Dr. Marcus Otto** (1964, German) has headed the Business Unit Transportation & Industrial Components since October 2016. This unit with the Heckert and WMW brands works on the Heavy Duty Vehicles & Engines, On-Road Vehicles and Industrial Components market segments. Before, Dr. Marcus Otto was responsible as managing director at the Heckert GmbH in Chemnitz on an interim basis since May 2016.

Earlier steps in his career included roles in management and as managing director at Thyssen-Krupp (1991 to 2001) and Gildemeister (2001 to 2011). Starting in 2011, Otto worked as independent management consultant and interim manager, among others, as Managing Director for Schiess Tech GmbH, Berlin, and as Senior Adviser for Staufen AG.

Dr. Marcus Otto obtained his diplomas in engineering and business engineering at Ruhr-University Bochum, where he later received his PhD degree.

### Maximum number of permissible mandates

The members of the Executive Board may hold not more than four additional mandates in companies listed on an official stock exchange and ten additional mandates in unlisted companies.

The following mandates are not subject to the aforementioned limitations:

1. Mandates in companies that are controlled by the company;
2. Mandates held at the request of the company or companies controlled by it; no member of the Board of Directors or the Executive Board shall hold more than ten such mandates;
3. Mandates in companies that do not satisfy the requirements of Art. 727 para. 1 CO, and mandates in associations, foundations, charitable organisations, trusts, employee welfare foundations and other comparable structures; no member of the Board of Directors or the Executive Board shall hold more than fifteen such mandates.

Mandates shall mean mandates in the supreme governing body of a legal entity that is required to be registered in the Swiss commercial register or a comparable foreign register. Mandates in different legal entities that are under joint control are deemed to be a single mandate.

Acceptance of mandates/appointments outside the company by members of the Executive Board requires prior approval by the Board of Directors.

### Management contracts

There are no management contracts with companies outside Starrag Group.

## Compensation, participation and loans

Information to compensation and loans are specified in the remuneration report (page 75 to 79) and information regarding participation can be found in note 20 of the consolidated financial statements (page 122).

# Shareholders' participation rights

Shareholders of Swiss corporations have extensive participation and protective rights. The participation rights include, in particular, the right to participate in General Meetings, the right to express opinions and the right to vote. The protective rights include, among others, the right for inspection and information, the right for a special audit, the right to convene a General Meeting, the right to add topics to the agenda, the right to challenge resolutions and the right to raise claims regarding responsibility.

## Voting rights restrictions and representation

There are no restrictions on the voting right for all shareholders whose right to vote is registered in the share register. Every shareholder is entitled to be represented by another shareholder whose power to do so is proven in writing.

## Statutory quorum

There is no statutory quorum.

## Convocation of the Annual General Meeting of shareholders

The Articles of Association contain no provisions on convening General Meetings that deviate from the law. A notice convening a General Meeting must be sent in writing to shareholders at least 20 days before the scheduled date of the General Meeting.

Extraordinary General Meetings are to be called upon resolution of a General Meeting of shareholders or the Board of Directors, or at the request of the auditors, or if shareholders representing at least 3 percent of the share capital request in writing that a General Meeting be called, specifying the agenda items to be discussed and the proposals to be voted on.

## Agenda

The notice convening a General Meeting shall state the agenda items and the motions of the Board of Directors as well as any proposals by shareholders who have duly requested that a General Meeting be called or that an item be included in the agenda. Shareholders representing an aggregate par value of at least CHF 500'000 may request that an item be included on the agenda of a General Meeting. Such inclusion must be requested in writing at least 40 days prior to the next scheduled General Meeting, specifying the agenda items to be discussed and shareholder proposals to be voted on.

## Registration in the share register

The Board of Directors keeps a share register in which the shareholders and beneficiaries are entered with their names and addresses. Shareholders and beneficiaries are only recognized as such if they are registered in the share register. Any entry requires the approval of the Board of Directors, a committee determined by the Board of Directors or a single person determined by the Board of Directors. The Board of Directors has the right to demand from the applicant all information which might be useful for the assessment of the application for registration. The entry in the share register of a shareholder with the right to vote or a beneficiary can be denied for the following reasons:

- if, on request of the company, the acquirer does not explicitly confirm that he did not obtain the shares in his name, in his own interest and on his own account and that he will hold them;
- if and as long as the registration of the acquirer may, based on the available information, prevent the company from complying with Swiss acts which ask for Swiss control.

Acquirers who are not yet recognized by the company are to be registered in the share register as shareholders without voting rights. The corresponding shares are deemed not to be represented at the General Meeting. After hearing the person in question, the Board of Directors can delete the registration if it resulted from invalid

information. The acquirer has to be informed immediately.

The record date for the inscription of registered shareholders into the share register in connection with the attendance of the General Meeting will be set on a date shortly before the statutory period on the convocation of the General Meeting.

## Changes of control and defence measures

### Duty to make an offer

There are no statutory rules regarding “opting-out” and “opting-up” which differ from law.

### Clauses on changes of control

There are no clauses on changes of control.

## Auditors

### Duration of the mandate and term of office of the auditor in charge

PricewaterhouseCoopers AG, St. Gallen, has been the statutory and group auditor since 1981. It is elected for a term of office of one year by the General Meeting. The current term of office expires at the Annual General Meeting in 2017. The auditor in charge, Beat Inauen, was first assigned auditing responsibilities with the auditing of the 2012 annual report. The maximum period as auditor in charge based on the legal rotation principle is seven years for Swiss companies.

### Audit fees

Audit fees paid to PricewaterhouseCoopers AG during the 2016 financial year and charged to the consolidated financial statements for 2016 amounted to TCHF 273.

### Additional fees

Additional non-audit fees paid to PricewaterhouseCoopers AG and charged to the consolidated financial statements for 2016 amounted to TCHF 5. These fees were primarily for tax advice.

### Supervisory and control instruments pertaining to the auditors

The external audit is supervised by the Board of Directors. The Board of Directors assesses the audit plan, the audit scope, the execution and the results of the audit. The auditors report directly to the Board of Directors. In the reporting year, the auditor in charge participated in two Board meetings. At those meetings, the audit schedule, scope, and results as well as other important elements of auditing were discussed.

# Information policy

The company informs its shareholders and the capital market in an open and timely fashion and with the highest possible levels of transparency. The most important information tools are the business and interim reports, the [www.starrag.com](http://www.starrag.com) website, media releases, balance sheet presentations for the media and analysts and the Annual General Meeting.

As a company listed on the stock exchange, the Starrag Group Holding AG is required to disclose information relevant to the share price in accordance with the listing regulations of the SIX Swiss stock exchange. Any interested party can register at <http://www.starrag.com/index.php/en/> (click on E-Mail distribution under Investors) to receive potential information relevant to the share price directly from the company via the E-Mail distribution list. This information is also available on the website (<http://www.starrag.com/index.php/en/>, click on Media releases under Investors) and can be provided to any interested parties upon request.

## Corporate calendar:

- › **28.04.2017**  
Annual General Meeting in Rorschach
- › **27.07.2017**  
Letter to shareholders on 1H 2017 results

- › **26.01.2018**  
Initial information on full-year 2017 results
- › **09.03.2018**  
Presentation of 2017 results for analysts and the media in Zurich
- › **28.04.2018**  
Annual General Meeting in Rorschach

Related information and documents will be published on our website [www.starrag.com](http://www.starrag.com) to the extent possible.

Official announcements and invitations will be sent by post to shareholders using the addresses recorded in the share register. Public announcements prescribed by law are made by publication in the Swiss Official Gazette of Commerce.

## Contacts:

Walter Börsch, CEO

Gerold Brüttsch, CFO

P +41 71 858 81 11  
[investor@starrag.com](mailto:investor@starrag.com)



# Compensation Report

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# Compensation report

## Introduction

This compensation report contains information on the compensation of the members of the Board of Directors and the Executive Board. The report was prepared in accordance with the Ordinance against Excessive Compensation with respect to Listed Stock Corporations (OaEC). Furthermore, the report is consistent with the Swiss Code of Best Practice for Corporate Governance of the Swiss Business Federation *economiesuisse* and Chapter 5 of the Appendix to the SIX Exchange Regulation Corporate Governance Directive.

The information included under the headings «Remuneration» and «Loans and credits» was audited by the statutory auditors.

## Compensation policy and principles

The Starrag Group ensures comprehensive transparency regarding the compensation of members of the Board of Directors and the Executive Board. Within the Starrag Group, compensation is based on the principles of value-based corporate management with the aim of ensuring that managers are paid in line with the market so ensuring that qualified managers can be recruited and remain with the company in the long-term. Compensation policy also promotes entrepreneurial thinking and action and align the interests of management bodies with those of the company's shareholders.

Individual tasks and performance, the course of the company's business, the conditions in the respective global sales market and the local labour market, as well as salary comparisons with similar positions with respect to the function and business activity, size and internationality of the employer, are all taken into account when determining the level of remuneration of the members of

the Board of Directors and the Executive Board. These criteria are individually applied to each member of the Executive Board using reasonable discretion.

## Responsibilities in determining the compensation

The responsibilities in determining the level of remuneration are regulated on the basis of the Ordinance against Excessive Compensation with respect to Listed Stock Corporations (OaEC) and in the Articles of Association and Organisational Regulations of Starrag Group Holding AG.

### General Meeting

The General Meeting has the non-transferable power to:

- select and dismiss members of the Compensation Committee;
- approve the level of compensation of the Board of Directors and the Executive Board;
- statutorily determine the principles governing the performance-related compensation of the members of the Board of Directors and the Executive Board, as well as other provisions of the Articles of Association in accordance with the Ordinance against Excessive Compensation with respect to Listed Stock Corporations.

Each year, the ordinary General Meeting approves the maximum total compensation of the Board of Directors for the period until the next ordinary General Meeting as well as the maximum total compensation of the Executive Board for the financial year following the General Meeting.

Furthermore, the General Meeting retrospectively approves the compensation report in a non-binding advisory vote.

### **Board of Directors**

Subject to the powers of the General Meeting, the Board of Directors is responsible, on the proposal of the Compensation Committee, for determining the level of compensation that is to be paid to the members of the Board of Directors and the members of the Executive Board. In particular, on the proposal of the Compensation Committee it has the following tasks and responsibilities:

- Defining the compensation system for the members of the Board of Directors and the Executive board in accordance with the Articles of Association;
- Reviewing the fixed compensation of the members of the Board of Directors and the Executive Board and determining the same within the framework of the total compensation approved by the General Meeting;
- Determining any additional compensation to the members of the Board of Directors for special tasks and special bonuses for special services within the framework of the total compensation approved by the General Meeting;
- Determining plans for the variable profit sharing to the members of the Board of Directors and the Executive Board in accordance with the Articles of Association and within the framework of total compensation approved by the General Meeting;
- Preparation of the compensation report.

### **Compensation Committee**

The Compensation Committee shall have the following duties and powers (fundamental principles):

- Drafting and periodic review of the compensation policy and principles of Starrag Group and periodic review of the implementation thereof, and submission of proposals and recommendations to the Board of Directors;
- Preparation of all relevant decisions of the Board of Directors relating to the compensation of the members of the Board of Directors and the Executive Board, and submission of proposals to the Board of Directors concerning the nature and amount of the annual compensation of the members of the Board of Directors and the Executive Board, and preparation of a proposal for the maximum overall amount of compensation.

The Compensation Committee performed its statutory duties in the 2016 fiscal year during the course of two meetings with an average duration of one hour, at which all members were present.

The Board of Directors and the Compensation Committee can engage external experts on compensation issues to obtain neutral advice and/or data as a basis for comparison of compensation levels. During the year under review the Compensation Committee contracted with Kienbaum, a consulting agency, to produce a report comparing the compensation of the Executive Board with market rates. The comparison group created by Kienbaum consisted of companies roughly equal in size and operating in similar fields as Starrag AG.

The members of the Compensation Committee abstain from making decisions concerning their own compensation, unless the decision on compensation relates to all members of the Board of Directors equally.

### Compensation elements

The members of the Board of Directors each receive a fixed compensation and a variable share of profits. The Board of Directors can award further compensation to individual members for additional activities (participation in committees, etc.).

The members of the Executive Board each receive a fixed compensation and a variable share of profits. The Board of Directors can pay special bonuses for special services.

The assessment base for the variable share of profits paid to the members of the Board of Directors is the net profit, reduced by a minimum return on equity. The amount of the minimum return on equity and the shares of the individual members of the Board of Directors in the assessment base and any additional details (payout conditions and payout date, possible limitations on the variable share of profits, etc.) are determined by the Board of Directors. If the net profit is below the specified minimum return on equity, there is no variable share of profit participation. In the year under review, the variable share of profits for the members of the Executive Board had an upper limit, whereby the limit was not reached.

The Board of Directors determines the variable profit-based compensation of the Executive Board members based on individual performance met-

rics pertaining to the areas of operation for which they are responsible and/or to collective performance metrics pertaining to the consolidated results. Typical examples of these performance metrics are order intake, sales revenue, operating profit EBIT, net income and other financial metrics. The Board of Directors can also determine the variable profit-based compensation based on the attainment of other pre-set goals and metrics.

The fixed compensation is paid monthly in cash. The variable share of profit is paid annually in cash after the consolidated financial statements have been approved by the General Meeting. The company does not have a stock ownership plan.

Pension benefits are only paid to members of the Board of Directors and the Executive Board within the framework of domestic and foreign pension plans and comparable plans of the company or its group companies. The benefits to the insured persons and employer's contributions are defined in the plans mentioned above and the corresponding regulations.

For members of the Executive Board appointed after the maximum total amount was approved, there is an additional amount as defined in Article 19 OaEC of 40% of the approved total amount for the Executive Board. Compensation may be paid by the company or the corresponding group company for activities in companies that are directly or indirectly controlled by the company. Such compensation must be consolidated at group level and are included in the voting on compensation by the General Meeting.

## Remuneration

CHF 1'000	2016				2015			
	Fixed	Variabel	Pension and other	Total	Fixed	Variabel	Pension and other	Total
Prof. Dr. Christian Belz	50	–	3	53	50	13	5	68
Prof. Dr. Frank Brinken	112	–	5	117	84	13	7	104
Daniel Frutig	80	–	6	86	70	13	7	90
Walter Fust	71	–	3	74	87	13	5	105
Adrian Stürm	62	–	3	65	62	13	5	80
<b>Total Board of Directors</b>	<b>375</b>	<b>–</b>	<b>20</b>	<b>395</b>	<b>353</b>	<b>65</b>	<b>29</b>	<b>447</b>
Variable as percentage of total compensation	0%				16%			
<b>Total Executive Board</b>	<b>1'876</b>	<b>544</b>	<b>318</b>	<b>2'738</b>	<b>1'899</b>	<b>590</b>	<b>308</b>	<b>2'797</b>
Variable as percentage of total compensation	22%				24%			
Thereof:								
▸ Walter Börsch	368	244	99	711	368	236	96	700
Variable as percentage of total compensation	40%				39%			

Compensation are reported on a gross basis (including employee contributions to pension plans and social contributions). The reported pension and social contributions include the employer contribution.

Company loans and credits to a member of the Executive Board or company guarantees or other sureties for commitments of a member of the Executive Board must not exceed three times the annual salary of the respective member of the Executive Board.

There will be no benefits for members of the Board of Directors and/or the Executive Board in connection with their departure from the company.

Compensation are reported on a gross basis (including employee contributions to pension plans and social contributions). The reported pension and social contributions include the employer contribution.

In the year under review, short-term compensation paid to non-executive members of the Board of Directors amounted to TCHF 395 (previous year TCHF 447). Short-term compensation to the Executive Board amounted to TCHF 2'738 (previous year TCHF 2'797). No benefits or other compensation were paid following termination of the working relationship.

### Notes regarding remuneration

The column for fixed compensation for the Board of Directors includes compensation for special duties fulfilled by the Board of Directors. Compensation awarded to members of the Board of Directors was lower in 2016 due to the absence of variable compensation, which is attributed to the fact that net income for the year did not result

in the pre-set return on equity while compensation of directors for special tasks increased.

Compensation of Executive Board members in 2016 was lower due to the reduction in the size of the Executive Board by removing the seat of the Head of Operations as of 30 December 2015, while in the year under review higher compensation was incurred due to the change in the Head of Transportation and Industrial (resignation of Eberhard Schoppe, effective 18 March 2016; compensation during release period; assumption of function by Marcus Otto, effective 1 October 2016).

Variable compensation was increased by the record-high order intake and decreased by the reduction in operating results.

All compensation has been stated on an accrual basis in line with the International Financial Reporting Standards (IFRS).

### Loans and credits

In the year under review, as well as in previous years, the Starrag Group granted no loans or credits to current or former members of the Board of Directors or the Executive Board. Nor did the Starrag Group grant any compensation or loans or credits to persons related to current or former members of the Board of Directors or the Executive Board at conditions which are not standard market conditions.



# Report of the statutory auditor



## ***Report of the statutory auditor to the General Meeting of Starrag Group Holding AG Rorschacherberg***

We have audited the remuneration report of Starrag Group Holding AG for the year ended 31 December 2016. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the tables on pages XX to XX of the remuneration report.

### ***Board of Directors' responsibility***

The Board of Directors is responsible for the preparation and overall fair presentation of the remuneration report in accordance with Swiss law and the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance). The Board of Directors is also responsible for designing the remuneration system and defining individual remuneration packages.

### ***Auditor's responsibility***

Our responsibility is to express an opinion on the accompanying remuneration report. We conducted our audit in accordance with Swiss Auditing Standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the remuneration report complies with Swiss law and articles 14–16 of the Ordinance.

An audit involves performing procedures to obtain audit evidence on the disclosures made in the remuneration report with regard to compensation, loans and credits in accordance with articles 14–16 of the Ordinance. The procedures selected depend on the auditor's judgment, including the assessment of the risks of material misstatements in the remuneration report, whether due to fraud or error. This audit also includes evaluating the reasonableness of the methods applied to value components of remuneration, as well as assessing the overall presentation of the remuneration report.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

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**Opinion**

In our opinion, the remuneration report of Starrag Group Holding AG for the year ended 31 December 2016 complies with Swiss law and articles 14–16 of the Ordinance.

PricewaterhouseCoopers AG

A handwritten signature in dark ink, appearing to read 'B Inauen'.

Beat Inauen  
Audit expert  
Auditor in charge

A handwritten signature in dark ink, appearing to read 'O Illa'.

Oliver Illa  
Audit expert

St. Gallen, 3 March 2017

# Financial Report

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# Financial commentary

## Record-high order intake – order backlog for more than one year

- Order intake up 44% to CH 480 million
- Sales plus 2% to CHF 372 million
- EBIT -50% to CHF 7.4 million, operating margin 2%
- Net profit -52% to CHF 4.6 million, profit per share CHF 1.33
- Solid balance with 53% equity ratio
- Dividend payout of CHF 1.00 per share, dividend payout ratio 75%

CHF m	2016	2015	Change
Order intake	480.3	333.4	44.0%
Sales revenue	371.6	363.7	2.2%
Operating profit EBIT	7.4	14.7	-49.8%
Net income	4.6	9.5	-51.8%
Earnings per share (in CHF)	1.33	2.78	-52.3%
EBIT as percentage of sales revenue	2.0%	4.0%	n/a
Net income as percentage of sales revenue	1.2%	2.6%	n/a
Return on equity (ROE)	2.5%	4.9%	n/a
Cash flow from operating activities	21.8	11.0	98.2%
Capital expenditure in fixed assets	19.4	22.3	-12.8%
Free cash flow	2.4	-11.3	n/a
Profit distribution per share (in CHF) <sup>1)</sup>	1.00 <sup>2)</sup>	1.20	-16.7%
Employees (average number of FTEs)	1524	1'573	-3.6%

CHF m	31.12.2016	31.12.2015	Change
Order backlog	348.3	237.8	46.5%
Total assets	349.6	341.5	2.4%
Net cash	-18.7	-15.9	17.0%
Shareholders equity	186.8	186.1	0.4%
Equity ratio	53.4%	54.5%	n/a

<sup>1)</sup> In the form of a (withholding tax-free) dividend payout of reserves from capital invested.

<sup>2)</sup> Proposal from the advisory board to the General Meeting.

Starrag Group's net income for the 2016 financial year amounted to CHF 4.6 million. This is 52% less than in the previous year primarily because of a lower gross margin. The EBIT margin amounted to 2.0% of sales. At CHF 480 million, order intake reached a record high, an increase of no less than 44% from the below-average level reported in the previous year.

The Board of Directors will propose a dividend of CHF 1.00 per share in the form of a withholding tax-free distribution of reserves from capital contributions at the General Meeting on 28 April 2017. This corresponds to a payout ratio of 75% of net income.

### Record-high order intake

At CHF 480 million, an increase of 44% versus the extraordinary low previous year (CHF 333 million), Starrag Group received more new orders in 2016 than ever before in its 120-year history. Factoring out exchange-rate movements, order intake increased by 43%. Production output in the global machine tool industry showed a slight decline in 2016, although German machine tool makers reported an overall increase in new orders of approximately 7% in 2016, according to VDW, Germany's national machine tool industry association.

### Positive development of sales

Sales amounted to CHF 372 million, an increase of 2% from the previous year (CHF 364 million). The currency-adjusted change amounted to +1.3%. Sales were particularly boosted by strong demand from customers in the aerospace industry, while the watch industry continued to show a reluctance to invest.

Gross profits (sales revenue minus material costs plus / minus inventory change) amounted to CHF 205 million, a decline of CHF 7 million from the previous year (CHF 212 million). The gross margin of 55.2% was 3.0 percentage points below the previous year's figure of 58.2%. This decline is explained by lower margins as a result of the changed product mix, the lower average completion percentage of the processed orders and the resulting time-related higher percentage of

materials, as well as the selective revaluation of individual projects. The positive effect resulting from targeted savings in procurement and product costs could not compensate for this decline.

### Operating results squeezed by reduced capacity utilisation and lower gross margin

Earnings before interest, tax, depreciation and amortisation (EBITDA) were down CHF 7.4 million to CHF 19.6 million (previous year CHF 27.1 million), particularly because of the lower capacity utilisation resulting from the fall in demand from the watch industry and specific cost overruns in individual customer orders. Earnings before interest and taxes (EBIT) fell by CHF 7.3 million to CHF 7.4 million (previous year CHF 14.7 million). This results in an operating margin of 2 percent of sales (previous year 4.0%).

At CHF 134 million, personnel costs were 2.0% above the previous year (currency-adjusted +1.4%). This includes restructuring costs of CHF 1.0 million for restructuring measures taken to adjust capacity and increase efficiency at various plants. The personnel costs saved as a result of the reduced staffing levels were balanced by cost increases as a result of higher unit labour costs (which could not be passed onto the market), namely in Germany and the emerging markets, as well as the elimination of personnel cost credits amounting to CHF 1.2 million from the previous year, which is explained by past-service costs following the reduction in the conversion rate of the Swiss pension fund. The percentage of personnel costs (before restructuring costs) was thus reduced from 36.2% to 35.9% of sales revenue. Operating expenses were CHF 53 million and hence, in particular because of lower order-related operating costs, they were 3.2% below the previous year, reducing from 14.9 to 14.2 percent of sales. Depreciation and amortisation were reduced slightly to CHF 12.3 million (previous year CHF 12.4 million) as a result of the focused investments made.

## High R&D investments

Investment in new product developments remained at a high level. During the year CHF 27.3 million or 7.2% of sales was spent on developing innovative products and processes as well as on customer specific modifications. After consideration of government grants and the capitalization and amortization of R&D projects, a net amount of CHF 26.7 million (7.3% of sales) was charged to the income statement (net CHF 30.8 million or 7.8% of sales in the previous year) for research and development.

## Decline in net income and earnings per share

With improved financial results, net income fell from CHF 9.5 million to CHF 4.6 million as a result of lower operating profits. Earnings per share were reduced accordingly to CHF 1.33. The financial results were assisted by foreign exchange gains of CHF 0.5 million, with the currency results turning out to be CHF 1.8 million better than in the previous year. As a result of the lower earnings before tax, tax expenditure amounted to CHF 1.3 million, lower than in the previous year (CHF 2.4 million). The tax ratio increased slightly by 1.8 percentage points, from 19.9% to 21.7%, which is explained by temporal effects.

## Balance sheet still sound

The balance sheet total of CHF 350 million on 31 December 2016 was significantly above that of the previous year (CHF 342 million), following above average capital expenditure.

The capital employed resulting from construction contracts in progress was slightly reduced thanks to higher advance payments with a considerably higher level of construction contracts in progress, down from CHF 38 million to CHF 35 million, with CHF 61 million shown on the balance sheet under receivables (previous year CHF 66 million) and CHF 26 million under liabilities (previous year CHF 28 million). The capital employed is comprised of accrued order costs and recognized profits of CHF

254 million (previous year CHF 205 million) minus CHF 219 million advance payments (previous year CHF 167 million).

Current assets were almost unchanged at CHF 207 million (previous year CHF 206 million). Cash increased by CHF 4.6 million. Primarily as a result of the cut-off date, receivables were reduced by CHF 11 million while inventories increased by CHF 2.6 million. The receivables still have a healthy maturity structure. Fixed assets increased slightly by CHF 7.2 million to CHF 143 million. Capital expenditure amounted to CHF 19 million (previous year CHF 22 million) and were only partially balanced by depreciation and amortisation of CHF 12 million (previous year 12 million).

Liabilities increased from CHF 155 million to CHF 163 million. This increase is primarily attributable to a cut-off date-related increase in operating liabilities and accrued expenses totalling CHF 7 million. There was also an increase in short-term financial liabilities, which were CHF 8 million higher in total, to finance the increased capital expenditures. Liabilities includes pension benefit obligations of CHF 3.9 million, which had to be entered on the liabilities side according to the International Financial Reporting Standards (IFRS) as a result of the low interest rate on the cut-off date, even though they were fully reinsured with a first-class Swiss insurance company.

Equity increased by CHF 0.8 million to CHF 187 million. Net income of EUR 4.6 million was balanced by the dividend payout of CHF 4.1 million. The capital structure of the Starrag Group continues to be solid, even if the equity ratio turned out to be slightly lower in the year under review, at 53% (previous year 55%).



### Free cash flow assisted by higher advance payments from clients

The cash flow from operating activities was considerably increased from CHF 11.0 million to CHF 21.8 million. Operational cash flow was assisted at the end of 2016 by a considerably increased level of financing for construction contracts in progress, as well as the reduced receivables for construction contracts finally accepted by customers before the end of the year.

The cash outflow arising from investment activity of CHF 19.4 million (previous year CHF 22.3 million) was in excess of the depreciation of CHF 12.3 million as a result of the construction of a new production plant in Vuadens/Switzerland.

Free cash flow amounted to CHF 2.4 million (previous year CHF -11.3 million) as a result of higher cash flow from operating activities, in conjunction with the higher capital expenditures. The investments in fixed assets included CHF 13 million for capital investments in the new buildings in Vuadens/Switzerland and the energy-saving modernisation of existing plant buildings. In addition, CHF 4 million were used for the expansion and modernisation of the machinery and production equipment in the manufacturing plants and the development of new technologies and products, and CHF 2.5 million were used for upgrading the IT systems, including for the continuing integration of the global network of the Starrag Group and the further development of IT support for the business processes. A total of CHF 13 million were spent on expansion investments and CHF 6 million on replacement investments.

The cash flow from financing activities amounted to CHF 2.7 million and, in addition to the increase in short-term financial liabilities by CHF 7.7 million, it primarily includes the dividend from capital contributions free of withholding tax which was paid out in April 2016, amounting to CHF 4.1 million. This corresponded to a pay-out ratio of 43% of net income in 2015.

### Currency effects

As the Swiss franc remained stable within a certain margin of fluctuation in relation to the Euro in 2016, there were only minor currency translation effects in comparison with the previous year. The annual average exchange rate for the translation of the income statement and the cash flow statement, 1.1014, was slightly above that of the previous year (1.0822), while the year-end exchange rate remained virtually unchanged at 1.0866 (previous year 1.0916).

The influence of the transaction effects was limited to the revaluation of open FX positions, which thanks to the stronger US dollar, among other things, led to a positive foreign currency result of CHF 0.5 million.

Furthermore, the Starrag Group was affected less by currency fluctuations than the Swiss industrial average. Currently 75% of sales come from plants abroad (previous year 72%); materials are procured within the Eurozone as far as possible. In spite of that, 23% of costs were incurred in Swiss francs in 2016, while 17% of revenue was collected in Swiss francs (previous year 25% of costs and 18% of revenue). To reduce the economic currency risk and thus to maintain the competitiveness of the Swiss manufacturing plants, Starrag Group places great emphasis on continuous improvements in productivity in order to counter the pressure of the ongoing strength of the Swiss franc.

## Consolidated income statement

	CHF 1'000	2016	2015
Sales revenue	1,2,3	371'611	363'728
Change in self-manufactured products		-3'125	-4'023
Material expense		-163'416	-147'949
Personnel expense	4	-134'261	-131'583
Operating expense	5	-52'640	-54'357
Other operating income	6	1'445	1'239
<b>Earnings before interest, taxes, depreciation and amortization EBITDA</b>		<b>19'614</b>	<b>27'055</b>
Depreciation and amortization	1,7	-12'251	-12'395
<b>Earnings before interest and taxes EBIT</b>		<b>7'363</b>	<b>14'660</b>
Financial income	8	1'181	241
Financial expense	8	-2'676	-3'000
<b>Earnings before tax</b>		<b>5'868</b>	<b>11'901</b>
Income tax expense	22	-1'275	-2'368
<b>Net income</b>		<b>4'593</b>	<b>9'533</b>
Thereof:			
• Shareholders of company		4'469	9'352
• Minority shareholders		124	181
Earnings per share (in CHF)	9	1.33	2.78
Diluted earnings per share (in CHF)	9	1.33	2.78

## Consolidated statement of comprehensive income

	CHF 1'000	2016	2015
<b>Net income</b>		<b>4'593</b>	<b>9'533</b>
Remeasurement pension benefits		2'706	-2'085
Income taxes on remeasurement pension benefits		-473	361
<b>Items not recyclable to the income statement</b>		<b>2'233</b>	<b>-1'724</b>
Cash flow hedges		-1'133	1'226
Income taxes on Cash flow hedges		298	-377
Currency translation		-1'090	-12'314
<b>Items recyclable to the income statement</b>		<b>-1'925</b>	<b>-11'465</b>
<b>Other comprehensive income</b>		<b>308</b>	<b>-13'189</b>
<b>Total comprehensive income</b>		<b>4'901</b>	<b>-3'656</b>
Thereof:			
• Shareholders of company		4'893	-3'788
• Minority shareholders		8	132

The enclosed notes are part of the consolidated financial statements.

# Consolidated balance sheet

	CHF 1'000	31.12.2016	31.12.2015
Cash and cash equivalents		14'028	9'427
Receivables	10	93'396	104'339
Other financial assets	11	12'239	7'681
Inventories	12	87'174	84'525
<b>Total current assets</b>		<b>206'837</b>	205'972
Tangible fixed assets	13	103'782	94'315
Intangible assets	14	38'956	41'257
<b>Total fixed assets</b>	15	<b>142'738</b>	135'572
<b>Total assets</b>		<b>349'575</b>	341'544

	CHF 1'000	31.12.2016	31.12.2015
Financial liabilities	16	28'972	21'415
Operating liabilities	17	66'426	61'546
Accrued expenses and deferred income	18	26'751	24'743
Current income tax		1'503	5'308
Provisions	19	4'788	6'026
<b>Total current liabilities</b>		128'440	119'038
Financial liabilities	16	3'786	3'935
Deferred income tax	22	24'461	23'888
Provisions	23	3'936	6'445
Pension benefit obligation	19	2'107	2'172
<b>Total non-current liabilities</b>		34'290	36'440
<b>Total liabilities</b>		<b>162'730</b>	155'478
Share capital		28'560	28'560
Additional paid-in capital		63'644	67'676
Retained earnings		133'824	129'355
Other reserves	20	-40'010	-40'434
<b>Total shareholders' equity of company</b>		186'018	185'157
Minority shareholders		827	909
<b>Total shareholders' equity</b>		<b>186'845</b>	186'066
<b>Total liabilities and shareholders' equity</b>		<b>349'575</b>	341'544

The enclosed notes are part of the consolidated financial statements.

# Consolidated cash flow statement

	CHF 1'000	2016	2015
Net income		4'593	9'533
Income tax expenses	22	1'275	2'368
Interest expenses	8	710	492
Interest income	8	-84	-63
Depreciation and amortization	7	12'251	12'395
Change in non-current provisions		141	-818
Other non-cash items		617	1'325
Change in inventory		-2'896	360
Change in other non-cash net current assets		9'823	-12'322
Income tax paid		-4'610	-2'286
<b>Cash flow from operating activities, net</b>		<b>21'820</b>	10'984
Capital expenditure for:			
• Tangible fixed assets		-17'706	-21'370
• Intangible fixed assets		-1'971	-1'472
Disposals of fixed assets		259	572
<b>Cash flow from investing activities, net</b>		<b>-19'418</b>	-22'270
Change in current financial liabilities		7'682	16'919
Repayment of non-current financial liabilities		-254	-249
Interest paid		-719	-362
Interest received		84	63
Dividend payment	9	-4'122	-6'152
<b>Cash flow from financing activities, net</b>		<b>2'671</b>	10'219
Currency translation		-472	-812
Net change in cash and cash equivalents		4'601	-1'879
Cash and cash equivalents at beginning of year		9'427	11'306
<b>Cash and cash equivalents at year end</b>		<b>14'028</b>	9'427

The enclosed notes are part of the consolidated financial statements.

## Consolidated statement of shareholders' equity

CHF 1'000	Share capital	Additional paid-in capital	Retained earnings	Other reserves 20	Shareholders' equity of the company	Non-controlling interests	Total shareholders' equity
01.01.2015	28'560	73'724	120'003	-27'294	194'993	881	195'874
Net income	–	–	9'352	–	9'352	181	9'533
Other comprehensive income	–	–	–	-13'140	-13'140	-49	-13'189
<b>Total comprehensive income</b>	–	–	<b>9'352</b>	<b>-13'140</b>	<b>-3'788</b>	<b>132</b>	<b>-3'656</b>
Dividend payment	–	-6'048	–	–	-6'048	-104	-6'152
31.12.2015	28'560	67'676	129'355	-40'434	185'157	909	186'066
Net income	–	–	4'469	–	4'469	124	4'593
Other comprehensive income	–	–	–	424	424	-116	308
<b>Total comprehensive income</b>	–	–	<b>4'469</b>	<b>424</b>	<b>4'893</b>	<b>8</b>	<b>4'901</b>
Dividend payment	–	-4'032	–	–	-4'032	-90	-4'122
<b>31.12.2016</b>	<b>28'560</b>	<b>63'644</b>	<b>133'824</b>	<b>-40'010</b>	<b>186'018</b>	<b>827</b>	<b>186'845</b>

# Starrag Group

## **High-precision machine tools for greater productivity**

Starrag Group is a global technology leader in manufacturing high-precision machining tools for milling, turning, boring and grinding of workpieces made from metallic, composite and ceramic materials. Principle customers are internationally active companies in the Aerospace, Energy, Transportation and Industrial sectors. In addition to its portfolio of machine tools, Starrag Group provides integrated technology and maintenance services that significantly enhance customer productivity.

Starrag Group products are marketed under the following brands: Berthiez, Bumotec, Dörries, Droop+Rein, Heckert, Scharmann, SIP, Starrag, TTL, WMW. Headquartered in Rorschach/Switzerland, Starrag Group operates manufacturing plants in Switzerland, Germany, France, the UK and India and has established a network of service and sales subsidiaries in numerous other countries.

Starrag Group is listed on the SIX Swiss Exchange.

As per 31 December and as per end of previous year, Starrag Group Holding AG held the following fully consolidated investments directly and indirectly:

- Starrag Group Holding GmbH, Chemnitz, Germany
- Starrag Group Holdings Ltd., Birmingham, UK
- Berthiez SAS, Saint-Etienne, France
- Bumotec SA, Sâles, Switzerland
- Dörries Scharmann Technologie GmbH, Mönchengladbach, Germany
- Heckert GmbH, Chemnitz, Germany
- SIP Société d'Instruments de Précision SA, Satigny, Switzerland
- Starrag AG, Rorschacherberg, Switzerland
- Toolroom Technology Limited, Haddenham, UK (Capital and voting share 85%)
- Starrag (Shanghai) Co. Ltd., Shanghai, China
- Starrag India Private Limited, Bangalore, India
- Starrag Italia Srl, Rivoli, Italy
- Starrag Makina Ticaret ve Servis Ltd., Ankara, Turkey
- Starrag Mexico, S. de R.L. de C.V., San Pedro Garza García, Mexico
- Starrag RU Ltd., Moskau, Russia
- Starrag UK Limited, Birmingham, UK
- Starrag USA Inc., Hebron USA



## Capital management

The managed capital is equal to the net equity stated in the consolidated balance sheet. Main targets of the capital management are to ensure the necessary financial flexibility and to optimize the capital structure for reducing capital costs in order to create additional value for shareholders and other stakeholders.

The equity base is periodically reviewed and adjusted as appropriate, taking into consideration economic conditions and loan agreements (compare note 16). Resolutions on the distribution of profit and thus the dividend payment must be put to the vote at the annual general meeting of shareholders.

Business performance is measured using internal statements of operating results. Operating results can then be classified and analyzed in various ways. Primary performance figure is earnings before interest and taxes (EBIT). Additionally, a balanced set of key figures is reported periodically, which gives consideration to the contradictory liquidity, growth and profitability.

## Segment information

Internal reporting to the Board of Directors is accord to the existing organisation structure. Aero-space & Energy is responsible for the market segments Aero Engines, Aero Structures, Avionics, Oil & Gas and Power Turbines with the product brands Berthiez, Dörries, Droop+Rein, Scharmann, Starrag and TTL. Transportation & Industrial Components is responsible for the market segments Heavy Duty Vehicles & Engines, Industrial Components and

On-Road Vehicles with the product brands Heckert and WMW. Precision Engineering is responsible for the market segments Luxury Goods and Med Tech with the product brands Bumotec and SIP. An essential part of the employees is working in the various locations and regions performs central tasks on behalf of all Business Units and brands.

The operating activities of these Business Units have comparable economic characteristics and exhibit a similar long-term financial performance.

All Business Units manufacture machine tools and offer related services. Production at all company locations is made-to-order. Our customers are manufacturing companies that use our products to make capital goods for their customers. Product sales and marketing at all company locations is preferably conducted directly by the regional sales and marketing organizations and the technical sales officers for the respective factories. All Business Units will also engage the services of independent sales representatives as required to ensure more effective global coverage.

The Starrag Group thus has one reportable segment machine tools; segment data corresponds to the data in the consolidated financial statements.

## Risk management

As a leading global manufacturer of precision machine tools, the Starrag Group is faced with various risks. The most significant risks include:

- The weakening of the economic environment in customer markets and also of business cycles could lead to a reduction in demand;
- Misjudgements of developments in customer markets or in the competitive environment could lead to missed business opportunities or losses;
- Failure in research and development and other innovation-based activities could prevent business potential from being realised,
- A lack of availability of financial resources could have an impact on the performance and operations of the Starrag Group and
- Natural occurrences (such as fires) can have an influence on operating activities. The Board of Directors and management give high priority to the careful handling of strategic, financial and operational risks. The Starrag Group has a holistic risk management process which is analysed every year by management and the Board of Directors, with the following aims being pursued:
  - Systematically identifying special risks,
  - Establishing processes to monitor, reduce and ideally to prevent risks and
  - Finding the right balance between risks and opportunities.

The Board of Directors and management give high priority to the careful handling of strategic, financial and operational risks. The Starrag Group has a holistic risk management process which is reviewed every year by management and the Board of Directors, with the following aims being pursued:

- Systematically identifying special risks,
- Establishing processes to monitor, reduce and ideally to prevent risks and
- Finding the right balance between risks and opportunities.

The risk management system is based on a classic risk matrix involving the probability of occurrence and possible extent of damage (identification and classification) and includes internal guidance as well as a risk log, in which operational data as well as action planning for risk management are documented.

The Executive Board appointed a risk management representative for the moderation and implementation of the risk management, which reports directly to the CFO.

In the annual risk review there is a diligent identification, assessment, analysis and evaluation of risks and appropriate measures are defined to reduce the risks. This information is documented in a group wide risk matrix. The implementation of the measures is monitored by the risk management representative. In business processes with recurring risks the measures are integrated as process steps in the operative processes of the daily business.

On an annual basis, the Executive Board reports nature, extent and assessment of significant risks and the measures taken for risk minimization to the Board of Directors. Risks in accounting and financial reporting are monitored and reduced by an adequate internal control system.

## Financial risk management

The main risks occurring from the group's financial instruments consist of credit risk, counterparty risk, foreign currency risk, interest rate risk and liquidity risk.

### Credit risk

The credit risk is limited by the number and the geographical spread of customers' receivables. In addition, it is limited by the adequate examination of the financial situation of customers before

entering into a contract. Mostly, customers make advance payments upon order acknowledgement. If appropriate, shipment only follows upon advance payment or letter of credit. The outstanding receivables are constantly monitored.

**Counterparty risk**

The Starrag Group mainly holds its cash and cash equivalents as deposits or current account deposits with major creditworthy banks. Generally these deposits have durations of less than three months. Transactions with derivative financial instruments are only concluded with major creditworthy banks.

**Foreign currency risk**

The Starrag Group does not enter into business operations in foreign currencies which show an extraordinary high volatility. The foreign currency risk results mainly from sales and purchases in foreign currencies other than in the functional currency. If adequate, hedge instruments like forward exchange contracts and currency option contracts with major banks are applied to hedge business in foreign currencies. As well, probable future orders will be hedged in certain cases. Foreign currency risks occurring from the translation of income statement and balance sheet positions of foreign group companies are not secured.

**Interest rate risk**

Interest rate risk results primarily from floating interest rates for bank loans. In some cases, these interest rates are fixed for short or long terms through loans with fixed interest rates.

**Liquidity risk**

Liquidity risk is limited by stipulated cash lines which cover the peak demand for working capital. It is continuously monitored through a liquidity status reports.

**Management assumptions and estimates**

Estimates and assumptions are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the prevailing circumstances. The resulting accounting estimates will naturally seldom comply with the actual outcome. Main sources of critical accounting estimates are:

Evaluation of net realizable values and profit shares of percentage of completion valued construction contracts: While preparing the accounts, the company continuously examines the valuation of various balance sheet positions which are related with the regular machine tool business. In this connection assumptions have to be made regarding costs to complete and realizable market prices. Should situations occur which change previous assumptions regarding realizable income, costs to complete or percentage of completion, these assumptions will be adjusted. This may lead to adjustments of the affected balance sheet

items and to the result. The carrying values of the potentially affected balance sheet items are included in the notes 12 (work in progress and finished products) and 21 (percentage of completion valued construction contracts).

**Business combinations:** The net assets of acquired entities are revalued in accordance with uniform Group accounting principles and methods as of the date of acquisition. Intangible assets such as proprietary technology, brands and customer relationships are also recognized in the balance sheet (see also note 14). Any residual amount will be allocated to goodwill. Assumptions regarding future market and business developments must be made at the initial measurement and for the subsequent impairment tests. A divergence between actual outcomes and these assumptions can have a significant impact on the valuation of intangible assets and on the results.

**Provisions for warranty obligations and onerous contracts:** While doing regular business, the company may be involved in legal disputes. Provisions for pending disputes are estimated by evaluating the realistic cash outflow on the basis of existing information. The final outcome of such a dispute might require recognition of an adjustment in provisions in the income statement (see note 19).

The evaluation of current tax liabilities is subject to the interpretation of tax laws in the respective

countries. Its adequateness will be examined at the final evaluation and the audit by the tax authorities, mainly retrospectively for several business years. Thus, major adjustments in tax expenses may occur (see note 22).

**Pension plan obligations:** In the actuarial calculation of the cash value of pension plan obligations, statistical assumptions are made regarding the discount rate, future wage and pension development, expected returns on assets and the probability of withdrawals of participants, death and invalidity. Developments which deviate from the assumptions can lead to significant medium-term changes in provisions of pension plan obligations (see note 23).

# Key accounting principles

## Basis of presentation

The consolidated financial statements of the Starag Group are prepared in accordance with International Financial Reporting Standards (IFRS). The financial statements are based on historical costs, with the exception of cash and cash equivalents as well as derivative financial instruments which are valued at market value. The presentation is in Swiss Francs (CHF). The financial statements include estimates and assumptions that affect reported amounts and related disclosures. Actual results may differ from these estimates.

## Consolidation principles

The consolidated financial statements include those of StarragHeckert Holding AG and its directly and indirectly controlled subsidiaries. All assets and liabilities as well as income and expenses are included in the consolidated financial statements. All intercompany transactions (income and expenses, receivables and liabilities) as well as gains on such transactions are eliminated. Capital consolidation is based on the purchase method, whereby the acquisition costs of a subsidiary are eliminated at the time of acquisition against net assets at fair value, determined according to uniform corporate valuation principles. There has been no amortization of goodwill as its value is being reassessed annually (impairment test). An impairment will immediately be recorded in the income statement. Net income of acquired subsidiaries is included in the consolidated financial statements beginning at acquisition date.

## Currency translation

Foreign currency transactions are recorded at the exchange rate of the transaction date. Foreign currency receivables and liabilities at balance sheet date are translated using the exchange rate of that date. Resulting translation differences are recorded in the income statement. Not-monetary positions are not revaluated at balance sheet date. Assets and liabilities of foreign subsidiaries are translated to CHF using the exchange rates of balance sheet date. Average exchange rates are used for the translation of the income statements. Translation differences arising from the consolidation of financial statements are carried to the other comprehensive income.

## Sales revenue and profit realisation

Sales revenue is recorded on transition of benefit and risk. Sales revenue from construction contracts at fixed prices are reported including a profit share depending on percentage of completion (percentage of completion method). Percentage of completion is defined by the direct contracts costs excluding material costs. In the balance sheet, the contract value after deduction of received payments is reported under receivables or accrued expenses and deferred income from percentage of completion valued construction contracts.

## Research and development

Research costs are charged to the income statement when incurred. Development costs are merely capitalized to the extent that such an

amount is covered by corresponding expected income. Capitalized developments are being reassessed yearly (impairment test). All other research and development costs are charged to the income statement when incurred.

### Income tax

Income tax expense includes all income tax on the taxable profits of the group. For tax (esp. withholding tax) on future dividend payments on retained earnings, provisions are only set up if such dividend payments are probable. Provisions for deferred income tax are calculated by applying the liability method on the temporary differences between the carrying values and tax values of assets and liabilities. Tax relief on tax losses carried forward is only recognized to the extent that it is probable that sufficient future taxable profit will be available to be set off against the tax loss carry forward.

### Cash and cash equivalents

Cash and cash equivalents include cash and bank balances as well as sight and deposit money with an original term of less than 3 months. These are valued at market value.

### Receivables

Receivables are carried at their nominal value less impairment allowance, which approximates the market value. The impairment allowance is determined on the basis of due dates and recognizable credit risks. Receivables include receivables from percentage of completion valued construction contracts after deduction of received payments.

### Inventories

Raw materials and trade goods are carried at average purchase costs, manufactured products at average manufacturing costs. Discounts are recognized as purchase cost reductions. If the realizable net value is lower, valuation adjustments are made accordingly. Manufacturing costs

include the direct costs of materials used, labour and operating costs as well as an appropriate portion of related overhead costs. Obsolete and slow-moving items are adequately provided for.

### Tangible fixed assets

Tangible fixed assets are carried at historical costs less appropriately accumulated depreciation. Depreciation is calculated using the straight line method for the estimated useful lives of: buildings 20 to 50 years, technical equipment and machines 4 to 12 years, IT hardware and communication 3 to 8 years. Land is not depreciated.

All gains and losses on disposals of tangible fixed assets are recognized in the income statement. Assets of low value are charged directly to operating expenses.

### Intangible assets

Goodwill resulting from the acquisition of a company is reported in intangible assets. It is assumed that goodwill has an unlimited useful life and thus is not amortized but reassessed at least once a year (impairment test). Impairment tests are based on the current three-year business plans, which take into consideration both past developments and expectations regarding future market and business developments. Additionally, the residual value includes revenues and profits which are sustainably expected over long-term based on a residual growth rate. The discount rates applied are pre-tax interest rates and they reflect market- and country-specific risks. If an impairment test indicates that the carrying value of an asset exceeds the value in use, an impairment loss covering the excess of the carrying amount over the value in use will be recorded. Other intangible assets are carried at historical cost less accumulated amortization. Using the straight line method, amortization of intangible assets is effected for the estimated useful life, i.e., technology assets 5 to 20 years, brands 10 to 30 years, customer relationships 2 to 20 years and IT software 3 to 8 years.



## Provisions

Provisions are made if a present obligation resulting from a past event exists, the use of resources for the settlement of such an obligation is probable and a reliable estimation of the amount of the obligation can be made. The amount of provisions depends on the expected use of funds needed to cover the obligation.

## Pension benefits

The pension benefit situation of Starrag Group companies' staff is in accordance with the legal requirements of the particular countries. The pension benefit situation of the Swiss companies is in accordance with the Swiss Pension Benefit Act (BVG). The Swiss pension benefit plans are legal entities which are independent from the Starrag Group and which have their pension benefit plans (according to Swiss law defined contribution plans) reinsured with an insurance company on a matching basis. Financing of the plans is through employer's and employees' contributions which are periodically fixed to fully cover the insurance premiums due.

The German companies do not maintain a pension benefit scheme, as personnel are covered by the state pension.

With defined benefit plans, pension benefit obligation equals to the present value of future cash outflows (calculated according to the project credit unit method) using interest rates of corporate or government bonds with a duration in line with the average cash outflow term. Service costs resulting from the actuarial calculations are charged to the personnel expenses. Interest expenses include the interest income on the plan assets less the interest expense from discounting the pension benefit obligation, both at the same

interest rate. The periodic remeasurement of the pension obligations is recognized in the other comprehensive income. Overfunding would only be recognized if actually available for future contribution repayments or reductions.

Employer contributions paid or owed for pension funds with defined contribution plans are recognized in the income statement.

## Financial instruments

Financial assets include cash, cash equivalents and receivables. Financial liabilities mainly include financial debts. Using the "effective interest method", these are valued at discounted cost as other financial liabilities. Apart from interest payments, yearly interest mark-up and pro rata transaction costs are also included in interest expenses.

Derivative foreign exchange hedge instruments are used in reaction to short-term currency fluctuations. These are valued at market based on quoted market values at the balance sheet date.

Changes in market value arising from foreign exchange hedge transactions («Cash flow Hedges») closed for hedging orders in foreign currencies are included in other comprehensive income, as far as standards regarding documentation, validity and assessment are met. Changes in market value accumulated in other comprehensive income are recorded in the income statement when the scheduled transaction is recognized in income. If the standards are not met, the Cash flow hedges are recognized at market value as financial instruments held for trading purposes. The net result is reported in the financial result. The underlying market value is based on observable market data (level 2 of the fair value hierarchy).

## Use of new or adapted standards

For the fiscal year 2016, the following new standards and interpretations of existing standards are applicable for the first time:

- **IAS 1** (revised) Presentation of financial statements (for fiscal years starting from 1. January 2016)
- **IASB** Annual Improvement

The first application of these standards had no influence on the amount stated in the consolidated financial statements as well as the explanations in the appendix.

The following new standards and interpretation enter into force in subsequent periods:

- **IAS 7** (revised) Statement of cash flow (for fiscal years starting from 1 January 2017)
- **IFRS 9** Financial instruments (for fiscal years

starting from 1 January 2018)

- **IFRS 15** Revenue from contracts with customers (for fiscal years starting from 1 January 2018)
- **IFRS 16** Leasing liabilities (for fiscal years starting from 1 January 2019)
- **IASB** Annual Improvement

Although it has not yet been possible to perform a systematic analysis, based on initial estimations, it is anticipated that these standards (with the exception of the change to the new IFRS 15) only have an insignificant influence on the consolidated financial statement. The effects of the first application of the new IFRS 15 cannot yet be estimated.

# Segment information

## 1. Reporting by business segment

		Machine Tools	
	CHF 1'000	2016	2015
<b>Sales revenues</b>		<b>371'611</b>	363'728
Earnings before interest, taxes, depreciation and amortization EBITDA		19'614	27'055
Depreciation and amortization		-12'251	-12'395
<b>Earnings before interest and taxes EBIT</b>		<b>7'363</b>	14'660
Operating assets on 31 December		335'547	332'117
Operating liabilities on 31 December		-100'072	-94'487
<b>Net operating assets on 31 December</b>		<b>235'475</b>	237'630
Goodwill		17'227	17'405
Capital expenditure in fixed assets		19'418	22'270
Non-cash income		617	1'325

The net operating assets contain the operating assets without cash and cash equivalents less operating liabilities (without financial liabilities and without income taxes).

## 2. Sales revenue by product

	CHF 1'000	2016	2015
New machines		285'530	277'125
Customer services		86'081	86'603
<b>Total</b>		<b>371'611</b>	363'728

## 3. Sales revenue by geographical segment

	CHF 1'000	2016	2015
Switzerland		92'037	104'181
Germany		242'945	228'719
Other countries		36'629	30'828
<b>Total</b>		<b>371'611</b>	363'728

# Notes to the income statement

## 4. Personnel expenses

	CHF 1'000	2016	2015
Wages and salaries		107'156	107'585
Pension benefits	23	2'601	1'754
Social benefits		18'089	17'733
Other personnel expenses		6'415	4'511
<b>Total personnel expenses</b>		<b>134'261</b>	131'583

## 5. Operating expenses

Operating expenses particularly comprise project risk costs, facility expenses, maintenance and repair of tangible fixed assets and travel, entertainment and administration expenses.

## 6. Other operating income

	CHF 1'000	2016	2015
Sublease income		484	476
Government grants		13	89
Profit from sales of fixed assets		11	22
Other operating income		937	652
<b>Total other operating income</b>		<b>1'445</b>	1'239

Government grants are tied to certain research and development subjects. There are no other conditions attached to them. Government grants are recognized as income over the periods necessary to match them with related costs on a systematic basis.

## 7. Depreciation and amortization

CHF 1'000	2016	2015
Buildings	-2'847	2'763
Machinery and equipment	-3'833	3'988
Other tangible assets	-1'537	1'566
<b>Total depreciation of tangible fixed assets</b>	<b>-8'217</b>	<b>8'317</b>
Brands and customer relations	-873	863
Technology	-2'263	2'137
IT software	-898	1'078
<b>Total amortization of intangible assets</b>	<b>-4'034</b>	<b>4'078</b>
<b>Total depreciation and amortization</b>	<b>-12'251</b>	<b>12'395</b>

## 8. Financial result

CHF 1'000	2016	2015
Interest income	84	63
Interest expense	-710	-492
Currency loss/gain	453	-1'356
Other financial expenses	-1'322	-974
<b>Total financial result, net</b>	<b>-1'495</b>	<b>-2'759</b>
Thereof:		
▸ Financial income	1'181	241
▸ Financial expenses	-2'676	-3'000
Result from available-for-sale financial instruments	154	173

## 9. Per share data

Earnings per share are determined by dividing net income after income tax less share of minority shareholders by the weighted average number of issued shares (excluding treasury shares). In 2016, the number of shares was 3'360'000 (prior year 3'360'000). Based on the net result attributable to the shareholders of the company of CHF 4.5 million (prior year CHF 9.5 million) net earnings per share amount to CHF 1.33 (prior year CHF 2.78). As the company has not issued any stock options or convertible bonds, earnings per share were not diluted.

At the General Meeting on 28 April 2017, the Board of Directors will propose the distribution of a dividend of CHF 1.00 per share from reserves from capital contributions. A dividend of CHF 1.20 from reserves from capital contributions was paid for the 2015 financial year.

# Notes to the balance sheet

## 10. Receivables

	CHF 1'000	31.12.2016	31.12.2015
Trade receivables		28'745	34'802
POC valued construction contracts	21	61'305	65'900
Other receivables		3'346	3'637
<b>Total receivables</b>		<b>93'396</b>	104'339
<b>Thereof:</b>			
▸ not due		87'414	94'233
▸ past due < 90 days, not impaired		4'810	8'067
▸ past due ≥ 90 days, not impaired		921	1'994
▸ impaired		251	45
<b>Thereof:</b>			
▸ CHF		21'197	29'900
▸ EUR		59'560	58'063
▸ USD		8'454	11'055
▸ other		4'185	5'321

Trade receivables include no receivables that are due only upon fulfillment of certain contractual conditions. In view of the number and the geographical spread of accounts receivable, there is no material concentration of risk.

	CHF 1'000	2016	2015
Allowance for doubtful receivables at beginning of year		1'392	2'239
Increase		562	438
Decrease		-94	-48
Use		-115	-1'057
Currency translation		-19	-180
<b>Allowance for doubtful receivables at end of year</b>		<b>1'726</b>	1'392

## 11. Other financial assets

	CHF 1'000	31.12.2016	31.12.2015
Prepayments to suppliers		9'222	5'037
Deferred expenses		2'561	2'090
Cash flow hedges	26	456	554
<b>Total other financial assets</b>		<b>12'239</b>	<b>7'681</b>

The Cash flows from the Cash flow hedges are expected within an average of 3 to 12 months.

## 12. Inventories

	CHF 1'000	31.12.2016	31.12.2015
Raw materials and components		46'337	41'256
Work in progress		30'515	33'065
Finished products		10'322	10'204
<b>Total inventories</b>		<b>87'174</b>	<b>84'525</b>

In 2016 a charge of CHF 2.9 million resulting from an inventory valuation adjustment was recorded (prior year CHF 2.4 million).

## 13. Tangible fixed assets

	2016				2015			
CHF 1'000	Land and buildings	Machinery and equipment	Other tangible fixed assets	Total	Land and buildings	Machinery and equipment	Other tangible fixed assets	Total
Gross value at beginning of year	102'598	47'382	11'364	161'344	90'146	50'634	10'929	151'709
Additions	13'002	3'428	1'650	18'080	16'963	3'071	1'732	21'766
Disposals	–	-697	-661	-1'358	–	-3'241	-538	-3'779
Currency translation	-192	-314	-75	-581	-4'511	-3'082	-759	-8'352
<b>Gross value at year end</b>	<b>115'408</b>	<b>49'799</b>	<b>12'278</b>	<b>177'485</b>	<b>102'598</b>	<b>47'382</b>	<b>11'364</b>	<b>161'344</b>
Accumulated depreciation at beginning of year	26'219	32'490	8'320	67'029	24'683	33'272	7'704	65'659
Depreciation	7 2'847	3'833	1'537	8'217	2'763	3'988	1'566	8'317
Disposals	–	-505	-611	-1'116	–	-2'825	-390	-3'215
Currency translation	-112	-247	-68	-427	-1'227	-1'945	-560	-3'732
<b>Accumulated depreciation at year end</b>	<b>28'954</b>	<b>35'571</b>	<b>9'178</b>	<b>73'703</b>	<b>26'219</b>	<b>32'490</b>	<b>8'320</b>	<b>67'029</b>
Net book value at beginning of year	76'379	14'892	3'044	94'315	65'463	17'362	3'225	86'050
<b>Net book value at year end</b>	<b>86'454</b>	<b>14'228</b>	<b>3'100</b>	<b>103'782</b>	<b>76'379</b>	<b>14'892</b>	<b>3'044</b>	<b>94'315</b>



## 14. Intangible assets

CHF 1'000	2016					2015				
	Goodwill	Brands and customer relations	Technologies	IT Software	Total	Goodwill	Brands and customer relations	Technologies	IT Software	Total
Gross value at beginning of year	17'405	15'170	24'650	10'254	67'479	19'065	16'365	29'432	11'936	76'798
Additions	–	–	480	1'491	1'971	–	–	650	822	1'472
Disposals	–	–	–	-249	-249	–	–	-3'214	-1'862	-5'076
Currency translation	-178	-48	-79	-38	-343	-1'660	-1'195	-2'218	-642	-5'715
<b>Gross value at year end</b>	<b>17'227</b>	<b>15'122</b>	<b>25'051</b>	<b>11'458</b>	<b>68'858</b>	17'405	15'170	24'650	10'254	67'479
Accumulated amortization at beginning of year	–	3'759	14'108	8'355	26'222	–	3'128	16'373	9'632	29'133
Amortization 7	–	873	2'263	898	4'034	–	863	2'137	1'078	4'078
Disposals	–	–	–	-241	-241	–	–	-3'214	-1'845	-5'059
Currency translation	–	-19	-66	-28	-113	–	-232	-1'188	-510	-1'930
<b>Accumulated amortization at year end</b>	<b>–</b>	<b>4'613</b>	<b>16'305</b>	<b>8'984</b>	<b>29'902</b>	–	3'759	14'108	8'355	26'222
Net book value at beginning of year	17'405	11'411	10'542	1'899	41'257	19'065	13'237	13'059	2'304	47'665
<b>Net book value at year end</b>	<b>17'227</b>	<b>10'509</b>	<b>8'746</b>	<b>2'474</b>	<b>38'956</b>	17'405	11'411	10'542	1'899	41'257

The goodwill impairment test was conducted using the following parameters:

CHF 1'000	31.12.2016			31.12.2015		
	Carrying amount of goodwill	Residual growth rate	Discount rate, pre-tax	Carrying amount of goodwill	Residual growth rate	Discount rate, pre-tax
Aerospace & Energy	14'059	1%	10.8%	14'232	1%	10.3%
Transportation & Industrial Components	921	1%	10.8%	926	1%	10.3%
Precision Engineering	2'247	1%	8.0%	2'247	1%	8.3%
<b>Total</b>	<b>17'405</b>			17'405		

Sensitivity analyses regarding the residual growth rate (no residual growth rate) and the discount rate (increase by two percentage points) as the key elements of the impairment test gave no reason to revise the initial assessment of the impairment test.

## 15. Fixed assets

CHF 1'000	31.12.2016	31.12.2015
Switzerland	69'923	58'995
Germany	62'695	65'717
Other countries	10'120	10'860
<b>Total</b>	<b>142'738</b>	135'572

## 16. Financial liabilities

	CHF 1'000	31.12.2016	31.12.2015
Current financial liabilities		28'972	21'415
Non-current financial liabilities		3'786	3'935
<b>Total financial liabilities</b>		<b>32'758</b>	25'350
Thereof in:			
▸ EUR		8'422	6'047
▸ CHF		24'336	19'303
Market value		32'758	25'350
<b>Contractual Cash flows</b>		<b>34'206</b>	26'911
Thereof:			
▸ due within 1 year		29'180	21'643
▸ due within 2 to 5 years		2'786	2'633
▸ due thereafter		2'240	2'635
Average interest rate		2.0%	1.2%
Unused credit lines		59'743	48'242

Credit agreements contain partly financial covenants and other conditions under which banks are able to terminate financial liabilities which are recorded as non-current at short notice. These financial covenants are based on key figures, resulting from EBITDA, net equity and net debt. In 2016 and 2015 the financial covenants have been satisfied.

## 17. Operating liabilities

	CHF 1'000	31.12.2016	31.12.2015
Trade liabilities		31'406	23'425
Other operating liabilities		8'363	9'620
POC valued construction contracts	21	25'888	28'028
Advance payments received		769	473
<b>Other operating liabilities</b>		<b>66'426</b>	61'546
Thereof:			
▸ due within 6 months		65'689	61'546
▸ due thereafter		737	0

## 18. Accrued expenses and deferred income

	CHF 1'000	31.12.2016	31.12.2015
Project costs		7'458	6'142
Personnel expense		10'503	10'127
Cash flow hedges	26	2'413	1'594
Other		6'377	6'880
<b>Total accrued expense and deferred income</b>		<b>26'751</b>	<b>24'743</b>

## 19. Provisions

	2016		
CHF 1'000	Warranty	Other provisions	Total
Value at beginning of year	7'894	304	8'198
Increase	4'329	–	4'329
Use	-5'535	-79	-5'614
Currency translation	-18	–	-18
Value year end	<b>6'670</b>	<b>225</b>	<b>6'895</b>
Thereof:			
• Current	4'563	225	4'788
• Non-current	2'107	–	2'107

Provisions are split into the categories warranty for products sold and other provisions. Other provisions include provisions for onerous contracts, personnel expenditure and project risks. On average, it is assumed that a Cash flow in warranties will occur within 6 to 24 months and in other provisions within 6 to 12 months.

## 20. Other reserves

CHF 1'000	Remeasurement pension benefit obligation	Cash flow hedges	Currency translation	Purchase of interest in subsidiary	Total other reserves
01.01.2015	-2'256	-1'617	-23'322	-99	-27'294
Other comprehensive income	-1'724	849	-12265	–	-13'140
<b>Comprehensive income</b>	<b>1'724</b>	<b>849</b>	<b>-12'265</b>	<b>–</b>	<b>-13'140</b>
31.12.2015	-3'980	-768	-35'587	-99	-40'434
Other comprehensive income	2'233	-835	-974	–	424
<b>Comprehensive income</b>	<b>2'233</b>	<b>-835</b>	<b>-974</b>	<b>–</b>	<b>424</b>
<b>31.12.2016</b>	<b>-1'747</b>	<b>-1'603</b>	<b>-36'561</b>	<b>-99</b>	<b>-40'010</b>

## Other notes

### 21. Percentage of completion valued construction contracts

	CHF 1'000	2016	2015
Revenue from POC valued construction contracts		284'540	278'782
	CHF 1'000	31.12.2016	31.12.2015
Accrued contract costs and recognized profit		254'404	205'182
Advance payments received		-218'987	-167'310
<b>Net value from construction contracts</b>		<b>35'417</b>	<b>37'872</b>
Thereof:			
▸ Receivables	10	61'305	65'900
▸ Operating liabilities	17	-25'888	-28'028

### 22. Income tax expenses

	CHF 1'000	2016	2015
Earnings before income tax		5'868	11'901
Tax expenses at anticipated tax rate of 17 %		-993	-2'033
Tax expenses at other tax rates		372	651
Debits/credits from prior reporting periods		20	-258
Non-deductable expenses/non-taxable income		-184	-96
Non-capitalized tax loss carry forward		-490	-632
<b>Recognized income tax expenses</b>		<b>-1'275</b>	<b>-2'368</b>
Thereof:			
▸ Current income tax expense		-732	-1'909
▸ Deferred income tax expense		-543	-459

The anticipated tax rate is the applicable tax rate at the company's domicile.

	CHF 1'000	31.12.2016	31.12.2015
Receivables		15'801	13'427
Fixed assets		8'119	9'303
Other		1'072	1'158
Tax loss carry forward		-5'265	-3'162
Value adjustment		4'734	3'162
<b>Total deferred income tax</b>		<b>24'461</b>	23'888

On 31 December 2016 there are off balance sheet tax losses carried forward of CHF 11.4 million (prior year CHF 12.0 million), whereof none expire within one to three years (prior year CHF 0.0 million), CHF 9.0 million expire within four to seven years (prior year 10.4) and CHF 1.3 million expire after more than seven years (prior year CHF 1.5 million). Deferred tax assets on tax loss carry-forward of CHF 4.7 million (prior year CHF 3.2 million) have not been capitalized. On 31 December 2016 there are temporary differences associated with investments in subsidiaries of CHF 43.1 million (prior year CHF 42.6 million) for which deferred tax liabilities have not been recognized. Deferred tax liabilities on temporary differences associated with investments in subsidiaries of CHF 0.4 million (prior year 0.6 CHF million) have not been recognized.

	CHF 1'000	2016	2015
Deferred taxes at beginning of year		23'888	25'198
(Income)/Expense for deferred taxes		543	459
Deferred taxes on fair-value changes of Cash flow Hedges recognized in equity		175	19
Currency translation		-145	-1'788
<b>Deferred taxes at end of year</b>		<b>24'461</b>	23'888

## 23. Pension benefits

	CHF 1'000	2016	2015
Current service costs		2'234	2'378
Past service costs		–	-1'185
<b>Total current service costs</b>		<b>2'234</b>	1'193
Interest expense		52	69
<b>Total pension benefit expense</b>		<b>2'286</b>	1'262

	CHF 1'000	31.12.2016	31.12.2015
Pension benefit obligation		60'535	63'527
Faire value plan assets		-56'599	-57'082
<b>Recognized pension benefit obligation</b>		<b>3'936</b>	6'445

CHF 1'000	2016	2015
Plan assets, beginning of year	57'082	55'512
Interest income (based on discount rate)	451	703
Return on plan assets (excluding interest income based on discount rate)	536	50
Employees' contributions	2'095	2'149
Employer's contributions	2'089	2'136
Paid benefits	-5'654	-3'468
<b>Plan assets, end of year</b>	<b>56'599</b>	<b>57'082</b>
Thereof:		
▸ Surrender value of insurance contracts	49'977	50'779
▸ Equity funds	4'748	4'450
▸ Bond funds	1'850	1'828
▸ Other investments	24	25

CHF 1'000	2016	2015
Pension benefit obligation, beginning of year	63'527	60'746
Current service costs	2'234	2'378
Past service costs	–	-1'185
Interest expense	503	772
Employees' contributions	2'095	2'149
Paid benefits	-5'654	-3'468
Actuarial gains/losses (Changes in demographic assumptions)	-2'535	3'027
Actuarial gains/losses (Changes in financial assumptions)	365	-892
<b>Pension benefit obligation, end of year</b>	<b>60'535</b>	<b>63'527</b>

CHF 1'000	2016	2015
Return on plan assets (excluding interest income based on discount rate)	536	50
Actuarial gains/losses (Changes in demographic assumptions)	2'535	-3'027
Actuarial gains/losses (Changes in financial assumptions)	-365	892
<b>Revaluation Pension benefits</b>	<b>2'706</b>	<b>-2'085</b>

CHF 1'000	2016	2015
Actuarial assumptions:		
Discount rate	0.7%	0.8%
Salary increase	0.5%	0.5%
Mortality rate	BVG 2015 GT	BVG 2010 GT
Average remaining service time	12.8	12.5

A 0.25 % increase or decrease in the discount rate would lead to an increase or decrease of the pension benefit obligation by 3.0%. A 0.25 % increase or decrease in the salary increase would lead to an increase or decrease of the pension benefit obligation by 0.2 %. The discount rate and the salary increase rate were identified as significant assumptions. Each change in the significant assumption was analysed independently.

Estimated employer's contributions 2017 are CHF 2.0 million.

## 24. Compensation

In the year under review, short-term compensation paid to non-executive members of the Board of Directors amounted to TCHF 395 (previous year TCHF 447). Short-term compensation to the Executive Board amounted to TCHF 2'738 (previous year TCHF 2'797). No benefits or other compensation were paid following termination of the working relationship.

Additional information are disclosed in the compensation report on page 75.

## 25. Loaded assets

CHF 1'000	31.12.2016	31.12.2015
To ensure financial liabilities in the amount of the following assets are mortgaged: Land and buildings	3'559	3'828
▸ Book value	7'234	7'740
▸ Liability	7'234	7'740

## 26. Derivative financial instruments

CHF 1'000	31.12.2016	31.12.2015
<b>Forward currency exchange contracts:</b>		
<b>Contract value</b>	<b>99'164</b>	53'718
Replacement value:		
▸ positive 11	456	554
▸ negative 18	-2'413	-1'594



## 27. Operating lease liabilities

CHF 1'000	31.12.2016	31.12.2015
▸ Due within 1 year	1'718	2'678
▸ Due to 2 to 5 years	956	1'628
<b>Total operating lease liabilities</b>	<b>2'674</b>	<b>4'306</b>
CHF 1'000	2016	2015
Expenses for operating lease liabilities debiting to the income statement amount to	3'502	3'694

The leasing liabilities are for premises, cars and IT-equipment.

## 28. Other commitments

CHF 1'000	31.12.2016	31.12.2015
Purchase commitment towards suppliers	81'937	65'490
Contractual commitments for capital expenditure	3'291	12'033

From time to time, the Starrag Group is confronted with claims which have to be considered as normal side effects of the operating business. These concern especially warranty obligations, property damage and financial loss as well as product liability. For these liabilities, provisions and sureties exist, which the Starrag Group believes to be sufficient for any foreseeable risks.

## 29. Research and development

Expenditure for research and development amounts to CHF 27.3 million or 7.3% of sales revenue (prior year CHF 26.3 million, 7.2% of sales revenue). After consideration of government grants as well as capitalization and depreciation of development projects, the income statement was charged with CHF 28.3 million, 7.6% of sales revenue (prior year net CHF 26.7 million or 7.3% of sales revenue).

## 30. Sensitivity analysis for changes in foreign currencies and interest rates

Assuming the euro was 5% weaker vs. the Swiss franc at 31 December 2016, and all other parameters being equal, the profit after tax would have been CHF 0.1 million lower (prior year CHF -0.1 million). Conversely, in the opposite case, the profit after tax would have been CHF 0.1 million higher (prior year CHF 0.1 million). Equity would have increased by CHF 0.7 million (prior year CHF 0.7 million), in the opposite case, would have been CHF 0.7 million (prior year CHF 0.7 million) lower. Assuming the U.S. dollar was 5 % weaker vs. the Swiss franc at 31 December 2016, and all other parameters being equal, the profit after tax would have been CHF 0.1 million lower (prior year CHF 0.4 million). Conversely, in the opposite case, the profit after tax would have been CHF 0.1 million higher (prior year CHF 0.4 million). Equity would not have changed (prior year CHF 0.1 million) or, in the opposite case, would not have changed (prior year CHF 0.1 million) lower.

### 31. Exchange rates

	CHF 1'000	2016	2015
Average rates (for income statement and Cash flow statement)			
1 EUR		1.1014	1.0822
1 USD		0.9945	0.9730
1 GBP		1.3528	1.4887
1 CNY		0.1499	0.1550
	CHF 1'000	31.12.2016	31.12.2015
Year end rates (for balance sheet)			
1 EUR		1.0866	1.0916
1 USD		1.0309	0.9991
1 GBP		1.2658	1.4811
1 CNY		0.1484	0.1539

### 32. Events after the balance sheet date

The consolidated financial statement was approved by the Supervisory Board on 3 March 2017 and released for publication. It is also subject to approval by the Annual General Meeting of shareholders, which is scheduled for 28 April 2017.

# Report of the statutory auditor



## **Report of the statutory auditor to the General Meeting of Starrag Group Holding AG Rorschacherberg**

### **Report on the audit of the consolidated financial statements**

#### **Opinion**

We have audited the consolidated financial statements of Starrag Holding AG and its subsidiaries (the Group), which comprise the consolidated statement of financial position as at 31 December 2016 and the consolidated income statement, consolidated statement of comprehensive income, consolidated statement of cash flows and consolidated statement of changes in equity for the year then ended, and notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the accompanying consolidated financial statements (pages 87 to 113) give a true and fair view of the consolidated financial position of the Group as at 31 December 2016 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) and comply with Swiss law.

#### **Basis for opinion**

We conducted our audit in accordance with Swiss law, International Standards on Auditing (ISAs) and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the consolidated financial statements" section of our report.

We are independent of the Group in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession, as well as the IESBA Code of Ethics for Professional Accountants, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Our audit approach**

##### **Overview**



Overall materiality: CHF 1,860,000

- We concluded full scope audit work at six group companies in two countries.
- Our audit scope addressed around 85% of the sales revenue and 85% of the assets of the Group.

As key audit matters, the following areas of focus were identified:

- Impairment testing of goodwill
- Accounting treatment of long-term construction contracts

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### **Audit scope**

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the consolidated financial statements as a whole, taking into account the structure of the Group, the accounting processes and controls, and the industry in which the Group operates.

The audit strategy for the audit of the consolidated financial statements was determined taking into account the work performed by the Group auditor and the component auditors in the PwC network and third parties. The Group auditor performed the audit of the consolidation, disclosures and presentation of the consolidated financial statements and of the goodwill. Where audits were performed by component auditors, we ensured that, as Group auditor, we were adequately involved in the audit in order to assess whether adequate sufficient appropriate audit evidence was obtained from the work of the component auditors to provide a basis for our opinion. Our involvement as Group auditors comprised the inspection of the reporting, taking part in telephone calls with the component auditors during the interim audit and the year-end audit, communicating the risks identified at Group level, specifying the audit procedures relating to the accounting treatment of long-term construction contracts and specifying the materiality.

### **Materiality**

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the consolidated financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the consolidated financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the consolidated financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate, on the consolidated financial statements as a whole.

<i>Overall Group materiality</i>	CHF 1,860,000
<i>How we determined it</i>	0.5% of sales revenue
<i>Rationale for the materiality benchmark applied</i>	We chose sales revenue as the benchmark for determining materiality. This benchmark takes into account the volatility of the business environment and it is a generally accepted benchmark for materiality considerations.

We agreed with the Board of Directors that we would report to them misstatements above CHF 186,000 identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

### **Key audit matters**

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the consolidated financial statements of the current period. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.



### Impairment testing of goodwill

#### Key audit matter

Goodwill is a significant asset category on the balance sheet (CHF 17.2 million). Impairment testing of goodwill by Management involves significant judgement, in particular to determine the assumptions concerning future business results and the discount rate to be applied to the forecasted cash flows.

Management adhered to a documented process in forecasting cash flows. The Board of Directors monitored compliance with this process and whether the assumptions corresponded to those approved by the Board of Directors for use in medium-term planning.

Please refer to page 95 (Management assumptions and estimates), pages 97 and 98 (Key accounting principles – Intangible assets) and pages 105 (Notes to the balance Sheet – Intangible assets) of the Notes to Group Financial Statements.

#### How our audit addressed the key audit matter

In our audit of goodwill, we performed the following main audit procedures:

- We compared the actual business results of the cash-generating units that recorded goodwill with the estimates made in the prior year based on Management's assumptions. This allowed us to assess with hindsight the accuracy of Management's assumptions.
- Further, we checked for plausibility the key assumptions applied by Management for the multi-year planning (revenue and margin growth). In addition, we performed a plausibility check on the change in net working capital.
- In order to assess the valuation model used, we involved our internal valuation experts, who compared in addition the components of each of the applied discount rates to data from analogous companies and to market data. Further, we assessed the technical and arithmetical correctness of the valuation model.
- We re-performed the sensitivity analyses carried out by Management. Additionally, we performed our own sensitivity analyses using different discount rates, revenues and margins. These analyses enabled us to assess any potential impairment of goodwill.

We consider the valuation process and the assumptions applied by Management to be an appropriate and adequate basis for the impairment testing of the goodwill as at 31 December 2016.



### Accounting treatment of long-term construction contracts

<i>Key audit matter</i>	<i>How our audit addressed the key audit matter</i>
<p>Starrag Group has significant long-term construction contracts, which are accounted for using the percentage-of-completion (PoC) method in accordance with IAS 11 – Construction Contracts. The degree of completion is determined on the basis of the direct contract costs excluding costs of materials.</p> <p>Management has to estimate the progress of projects as of the balance sheet date and the costs to be incurred in the future until their completion. An incorrect estimate could have a significant impact on the results for the period.</p> <p>Please refer to page 94 (Management assumptions and estimates), pages 96 (Key accounting principles – Sales and profit realisation) and pages 108 (Other notes – Construction contracts) of the Notes to Group Financial Statements.</p>	<p>In our audit of the accounting treatment of long-term construction contracts using the percentage-of-completion (PoC) method, the audit procedures we performed mainly comprised the following:</p> <ul style="list-style-type: none"> <li>• We tested the effectiveness of the internal controls relating to the proper accounting for long-term construction contracts in the consolidated financial statements of.</li> <li>• We checked that the cost unit rates were properly maintained in the ERP system.</li> <li>• We selected various construction contracts (risk-based selection on the basis of the sales volume, the contribution margin and the project's stage of completion) and performed the following audit procedures: <ul style="list-style-type: none"> <li>– We inspected the contracts and assessed whether their terms and conditions, including revenue and penalties for non-performance were recognised appropriately in the consolidated financial statements.</li> <li>– We discussed with the project controllers and the project managers the stage of completion of projects and the costs still to be incurred until completion.</li> </ul> </li> <li>• During the audit, we conducted on-site inspections of various machines still under construction and assessed the stage of completion of the projects.</li> <li>• For the construction contracts completed during the year under review, we compared various final parameters with the estimates made in the planning phase or those as of the previous balance sheet date in order to assess with hindsight the accuracy of the estimates made by Management.</li> <li>• We read the minutes of the Board of Directors meetings for indications of quality deficiencies, penalties for non-performance or pending legal cases, obtained lawyers' confirmations and assessed whether the matters included therein in connection with the recognition of long-term construction contracts were reflected completely and accurately in the consolidated financial statements.</li> <li>• We checked the arithmetical correctness of the key assessments relating to the stage of completion of projects, the costs to be incurred in the future and the sales revenue.</li> <li>• We checked whether the disclosures in the consolidated financial statements were made in accordance</li> </ul>




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with IAS 11 – Construction Contracts.

The results of our audit corroborate the accounting treatment of long-term construction contracts and their disclosure in the 2016 consolidated financial statements.

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#### ***Other information in the annual report***

The Board of Directors is responsible for the other information in the annual report. The other information comprises all information included in the annual report, but does not include the consolidated financial statements, the stand-alone financial statements and the compensation report of Starrag Group Holding AG and our auditor's reports thereon.

Our opinion on the consolidated financial statements does not cover the other information in the annual report and we do not express any form of assurance conclusion thereon.

In connection with our audit of the consolidated financial statements, our responsibility is to read the other information in the annual report and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements or our knowledge obtained in the audit, or otherwise appears to be materially misstated. If, based on the work we have performed, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

#### ***Responsibilities of the Board of Directors for the consolidated financial statements***

The Board of Directors is responsible for the preparation of the consolidated financial statements that give a true and fair view in accordance with IFRS and the provisions of Swiss law, and for such internal control as the Board of Directors determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors intends either to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

#### ***Auditor's responsibilities for the audit of the consolidated financial statements***

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is located at the website of EXPERTSuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

#### ***Report on other legal and regulatory requirements***

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of consolidated financial statements according to the instructions of the Board of Directors.

We recommend that the consolidated financial statements submitted to you be approved.





PricewaterhouseCoopers AG

A handwritten signature in black ink, appearing to read 'Beat Inauen'.

Beat Inauen  
Audit expert  
Auditor in charge

A handwritten signature in black ink, appearing to read 'Oliver Illa'.

Oliver Illa  
Audit expert

St. Gallen, 3 March 2017

# Income statement

CHF 1'000	2016	2015
Other operating income:		
▸ Income from investments	28	27'642
Financial income	4'367	5'632
<b>Total revenue</b>	<b>4'395</b>	<b>33'274</b>
Personnel expense	-339	-605
Other operating expense	-534	-550
Depreciation and impairments on position of fixed assets	-440	-3'970
Financial expense	-736	-5'700
Income tax expense	-6	-6
<b>Net income</b>	<b>2'340</b>	<b>22'443</b>

# Balance sheet

CHF 1'000	31.12.2016	31.12.2015
Cash and cash equivalents	8	58
Other current receivables:		
▸ from group companies	4'049	4'698
▸ from third parties	–	8
Prepaid expenses	35	6
<b>Total current assets</b>	<b>4'092</b>	<b>4'770</b>
Financial assets:		
▸ Loans to group companies	68'129	69'291
Investments	108'081	108'053
<b>Total fixed assets</b>	<b>176'210</b>	<b>177'344</b>
<b>Total assets</b>	<b>180'302</b>	<b>182'114</b>

CHF 1'000	31.12.2016	31.12.2015
Other current liabilities:		
▸ to group companies	1'768	1'811
▸ to third parties	27	95
Accrued expenses and deferred income	299	308
<b>Total current liabilities</b>	<b>2'094</b>	<b>2'214</b>
<b>Total liabilities</b>	<b>2'094</b>	<b>2'214</b>
Share capital	28'560	28'560
Legal capital reserves:		
▸ Capital contribution reserves	62'881	66'913
▸ Other legal capital reserves	1'222	1'222
Retained earnings from prior years	83'205	60'762
Net result	2'340	22'443
<b>Total shareholders' equity</b>	<b>178'208</b>	<b>179'900</b>
<b>Total liabilities and shareholders' equity</b>	<b>180'302</b>	<b>182'114</b>

# Notes to the financial statements

## Key accounting principles

### 1. Basis of presentation

The financial statements of Starrag Group Holding AG, Rorschacherberg were prepared in accordance with the provisions of the Swiss Law on Commercial Accounting defined by the Swiss Code of Obligations.

The company prepares consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS). Correspondingly, the company dispenses with preparation of additional information in the notes to the financial statements and a cash flow statement.

The following are explanations of how material balance sheet positions are stated on the balance sheet.

### 2. Other current receivables and liabilities

Other short-term receivables and liabilities are carried at their nominal value. Maturity structures and recognisable credit risks are taken into account when creating specific impairment allowances on other short-term receivables. For the remainder, general impairment allowances are created at the discretion of the Board of Directors as permitted by tax legislation.

### 3. Financial assets

The financial assets include long-term loans to Group companies. Loans granted in foreign currency are valued at the current yearend exchange rate, whereby unrealised losses are recorded but unrealised gains are not reported.

### 4. Investments

Shareholdings are reported in the balance sheet at the cost of acquisition less appropriate valuation adjustments for impairments that are anticipated to be permanent.

### 5. Currency translation

Transactions in foreign currencies are translated into Swiss francs at the exchange rate valid at the time of the transaction. Pursuant to the imparity principle, assets and liabilities plus shareholders' equity in foreign currencies are translated into Swiss francs at the year-end rate.

## Supplemental information and explanations to the annual report

### 6. Full-time employees

The company does not have any employees.

### 7. Investments

On 31 December and as per the end of the prior year, the company held the following direct or material indirect participating interests with an equity share and percentage of voting rights of 100 % each (unless otherwise indicated):

- Starrag Group Holding GmbH, Chemnitz, Germany
- Starrag Group Holdings Ltd., Birmingham, UK
- Berthiez SAS, Saint-Etienne, France
- Bumotec SA, Sâles, Switzerland
- Dörries Scharmann Technologie GmbH, Mönchengladbach, Germany
- Heckert GmbH, Chemnitz, Germany
- SIP Société d'Instruments de Précision SA, Satigny, Switzerland
- Starrag AG, Rorschacherberg, Switzerland
- Toolroom Technology Limited, Haddenham, UK (Capital and voting share 85%)
- Starrag (Shanghai) Co. Ltd., Shanghai, China
- Starrag India Private Limited, Bangalore, India
- Starrag Italia Srl, Rivoli, Italy
- Starrag Makina Ticaret ve Servis Ltd., Ankara, Turkey
- Starrag Mexico, S. de R.L. de C.V., San Pedro Garza García, Mexico
- Starrag RU Ltd., Moskau, Russia
- Starrag UK Limited, Birmingham, UK
- Starrag USA Inc., Hebron USA

### 8. Share capital and authorised share capital

The share capital of CHF 28.6 million comprises 3'360'000 registered shares with the nominal value of CHF 8.50 each. At the Annual General Meeting on 23 April 2016, the Board of Directors was authorized to increase the share capital up to a maximum of CHF 5'695'000 by issuing a maximum of 670'000 fully paid-in registered shares with a nominal value of CHF 8.50 at any time until 23 April 2018.

## 9. Major shareholders

The following major shareholders hold more than three per cent of the voting rights:

	31.12.2016	31.12.2015
Walter Fust, Freienbach, Switzerland	53.82%	53.82%
Eduard Stürm AG, Goldach, Switzerland	9.26%	9.26%
Max Rössler, Hergiswil / Parmino Holding AG, Goldach, Switzerland	7.98%	7.80%

## 10. Remunerations

Remunerations to the Board of Directors and to the Executive Board are disclosed in the remuneration report from page 71 of the annual report.

## 11. Participations of the Board of Directors and Executive Board

	Number of shares	31.12.2016	31.12.2015
Prof. Dr. Christian Belz, Member of the Board of Directors		2'800	2'800
Prof. Dr. Frank Brinken, Vice Chairman		47'800	47'800
Daniel Frutig, Chairman		2'240	1'130
Walter Fust, Member of the Board of Directors		1'808'358	1'808'358
Adrian Stürm, Member of the Board of Directors		27'150	26'900
Walter Börsch, CEO		1'001	1'001
Gerold Brütsch, CFO		400	300
Günther Eller, Head Customer Service		200	200

## 12. Reserves from capital contributions

The reported legal reserves from capital contributions at 31 December 2016 amounted to CHF 62.9 million (prior year CHF 66.9 million), of which CHF 59.7 million (prior year CHF 63.7 million) were recognized by the Swiss Federal Tax Administration within the meaning of Article 20 (3) of the Federal Income Tax Act and Article 5 (1) of the Federal Withholding Tax Act.

## 13. Sureties for the benefit of Group companies

The total amount of sureties furnished for third-party liabilities constitutes CHF 300.4 million (prior year CHF 288.3 million).

## 14. Contingent liabilities

The company is part of the VAT group of Starrag AG and thus jointly liable for VAT debts of the whole group to the Swiss Federal Tax Administration.

# Appropriation of Retained Earnings

## Proposal of the Board of Directors for the appropriation of retained earnings

CHF 1'000	2016 <sup>1)</sup>	2015 <sup>2)</sup>
Retained earnings	83'205	60'762
Net income	2'340	22'443
<b>Retained earnings</b>	<b>85'545</b>	83'205
<b>To be carried forward</b>	<b>85'545</b>	83'205

## Proposal of the Board of Directors for the appropriation of legal reserve from capital contributions

CHF 1'000	2016 <sup>1)</sup>	2015 <sup>2)</sup>
<b>Available capital contribution reserves</b> 12	<b>62'881</b>	66'913
Withholding tax free distribution	-3'360	-4'032
<b>To be carried forward</b>	<b>59'521</b>	62'881

- 1) At the General Meeting on 28 April 2017, the Board of Directors will propose the distribution of a dividend of CHF 1.00 per share from the reserves from capital contributions (total dividend CHF 3.4 million). In addition, the Board of Directors will propose that the retained earnings of CHF 85.5 million will be carried forward.
- 2) According to the resolution of the Annual General Meeting held on 23 April 2016, a distribution of a dividend of CHF 1.20 per share (total dividend CHF 4.0 million) was carried out. In addition, the Annual General Meeting decided that the retained earnings of CHF 83.2 million was carried forward.

# Report of the statutory auditor



## **Report of the statutory auditor** **to the General Meeting of Starrag Group Holding AG**

**Rorschacherberg**

### **Report on the audit of the financial statements**

#### **Opinion**

We have audited the financial statements of Starrag Group Holding AG, which comprise the balance sheet as at 31 December 2016, income statement and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 120 to 125) as at 31 December 2016 comply with Swiss law and the company's articles of incorporation.

#### **Basis for opinion**

We conducted our audit in accordance with Swiss law and Swiss Auditing Standards. Our responsibilities under those provisions and standards are further described in the "Auditor's responsibilities for the audit of the financial statements" section of our report.

We are independent of the entity in accordance with the provisions of Swiss law and the requirements of the Swiss audit profession and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Our audit approach**

##### **Overview**



Overall materiality: CHF 900,000

We tailored the scope of our audit in order to perform sufficient work to enable us to provide an opinion on the financial statements as a whole, taking into account the structure of the entity, the accounting processes and controls, and the industry in which the entity operates.

As key audit matter the following area of focus has been identified:

Impairment testing of investments in subsidiaries

#### **Audit scope**

We designed our audit by determining materiality and assessing the risks of material misstatement in the financial statements. In particular, we considered where subjective judgements were made; for example, in respect of significant accounting estimates that involved making assumptions and considering future events that are inherently uncertain. As in all of our audits, we also addressed the risk of management override of internal controls, including among other matters consideration of whether there was evidence of bias that represented a risk of material misstatement due to fraud.

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### Materiality

The scope of our audit was influenced by our application of materiality. Our audit opinion aims to provide reasonable assurance that the financial statements are free from material misstatement. Misstatements may arise due to fraud or error. They are considered material if individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

Based on our professional judgement, we determined certain quantitative thresholds for materiality, including the overall materiality for the financial statements as a whole as set out in the table below. These, together with qualitative considerations, helped us to determine the scope of our audit and the nature, timing and extent of our audit procedures and to evaluate the effect of misstatements, both individually and in aggregate on the financial statements as a whole.

<i>Overall materiality</i>	CHF 900,000
<i>How we determined it</i>	0.5% of total assets
<i>Rationale for the materiality benchmark applied</i>	We chose total assets as the benchmark because, in our view, it is a relevant benchmark for holding company, and it is a generally accepted benchmark for holding companies.

We agreed with the Board of Directors that we would report to them misstatements above CHF 90,000 identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

### Report on key audit matters based on the circular 1/2015 of the Federal Audit Oversight Authority

Key audit matters are those matters that, in our professional judgement, were of most significance in our audit of the financial statements of the current period. These matters were addressed in the context of our audit of the financial statements as a whole, and in forming our opinion thereon, and we do not provide a separate opinion on these matters.

#### Impairment testing of investments in subsidiaries

<i>Key audit matter</i>	<i>How our audit addressed the key audit matter</i>
<p>Investments in subsidiaries is a significant asset category on the balance sheet (CHF 108.1 million). Impairment testing of investments whose book value is greater than the book value of the underlying net assets requires Management to consider capitalised earnings or valuations at the company level. Doing so involves significant scope for judgement, particularly to determine the assumptions to use concerning future business results and the average weighted cost of capital to apply to the expected cash flows.</p> <p>In identifying the potential need for impairment of investments in subsidiaries, Management uses a predefined impairment testing process.</p> <p>Please refer to page 122 and 123 (Investments) of the notes to the financial statements.</p>	<p>In our audit of investments in subsidiaries, we performed the following main audit procedures:</p> <ul style="list-style-type: none"> <li>• We compared the book value of the investments in the year under review with their pro-rata share of the respective company's equity or the company's valuation, based on capitalised earnings or discounted cash flows (DCF).</li> <li>• We checked for plausibility the key assumptions applied by Management (revenue and margin growth, weighted average cost of capital). We compared the weighted average cost of capital with data from analogous companies and with market data.</li> </ul> <p>We consider the valuation process and the assumptions used to be an appropriate and adequate basis for the impairment testing of the goodwill as at 31 December 2016.</p>



#### ***Responsibilities of the Board of Directors for the financial statements***

The Board of Directors is responsible for the preparation of the financial statements in accordance with the provisions of Swiss law and the company's articles of incorporation, and for such internal control as the Board of Directors determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, the Board of Directors is responsible for assessing the entity's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors either intends to liquidate the entity or to cease operations, or has no realistic alternative but to do so.

#### ***Auditor's responsibilities for the audit of the financial statements***

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Swiss law and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

A further description of our responsibilities for the audit of the financial statements is located at the website of EXPERTSuisse: <http://expertsuisse.ch/en/audit-report-for-public-companies>. This description forms part of our auditor's report.

#### ***Report on other legal and regulatory requirements***

In accordance with article 728a paragraph 1 item 3 CO and Swiss Auditing Standard 890, we confirm that an internal control system exists which has been designed for the preparation of financial statements according to the instructions of the Board of Directors.

We further confirm that the proposed appropriation of available earnings complies with Swiss law and the company's articles of incorporation. We recommend that the financial statements submitted to you be approved.

PricewaterhouseCoopers AG

Beat Inauen  
Audit expert  
Auditor in charge

Oliver Illa  
Audit expert

St. Gallen, 3 March 2017



## Five-year overview

Mio. CHF	2016	2015	2014	2013	2012
Order intake	480.3	333.4	407.3	424.9	364.2
Order backlog at year end	348.3	237.8	287.6	274.7	238.6
Sales revenue	371.6	363.7	393.2	390.7	384.0
Earnings before interest, taxes, depreciation and amortization (EBITDA)	19.6	27.1	33.2	32.4	34.4
Earnings before interest and taxes (EBIT)	7.4	14.7	19.1	19.0	21.1
Net income	4.6	9.5	14.4	13.5	13.0
EBITDA as percentage of sales revenue	5.3%	7.4%	8.4%	8.3%	9.0%
EBIT as percentage of sales revenue	2.0%	4.0%	4.9%	4.9%	5.5%
EBIT as percentage of net operating assets	3.1%	6.2%	8.3%	9.4%	11.8%
Net income as percentage of sales revenue	1.2%	2.6%	3.7%	3.5%	3.4%
Cash flow from operating activities	21.8	11.0	7.3	8.8	24.9
Capital expenditure	19.4	22.3	14.6	11.2	32.1
Free Cash flow	2.4	-11.3	-7.2	-2.3	10.2
Employees (average number of FTEs)	1'524	1'573	1'622	1'640	1'536
Net operating assets	235.5	237.6	230.0	210.4	194.3
Total assets	349.6	341.5	356.3	348.7	347.2
Net debt	18.7	15.9	-2.4	-16.1	-24.9
Shareholders' equity	186.8	186.1	195.9	193.6	183.6
Equity ratio	53.4%	54.5%	55.0%	55.5%	52.9%
Return on equity (ROE)	2.5%	4.9%	7.5%	7.3%	7.3%
Earnings per share in CHF	1.33	2.78	4.26	3.97	3.81
Share price at year end in CHF	52.50	46.00	64.50	75.75	61.60
Profit distribution per share in CHF	1.00 <sup>1)</sup>	1.20	1.80	1.80	1.80
Total shareholder return (TSR)	16.7%	-25.9%	-12.5%	25.9%	26.7%

<sup>1)</sup> Proposal of the Board of Directors to the Annual General Meeting on 28 April 2017 in the form of a withholding-tax-free distribution from capital contribution reserves.

## Financial calendar

- |                          |   |
|--------------------------|---|
| ▸ <b>28 April 2017</b>   | Annual General Meeting in Rorschach                           |
| ▸ <b>27 July 2017</b>    | Letter to shareholders on HJ 2017 results                     |
| ▸ <b>26 January 2018</b> | Initial information on full-year 2017 results                 |
| ▸ <b>9 March 2018</b>    | Presentation of 2017 results for analysts and media in Zurich |
| ▸ <b>28 April 2018</b>   | Annual General Meeting in Rorschach                           |

Contact information:

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# Credits

## Publisher

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PEPR, Oetwil am See, Switzerland

## Printer

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This annual report is also available in German. In case of any discrepancy between the two versions, the German text shall prevail. The annual report may also be viewed online on our website: [www.starrag.com](http://www.starrag.com)



Starrag Group

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Berthiez  
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