


The logo graphic consists of a red square with a white diagonal line from the top-left to the bottom-right. The word "starrag" is written in white lowercase letters on the white background of the square.

**starrag**

Starrag Group

# Annual Report 2019



Our company's success depends not only on our technological expertise, but also on long-term partnerships with our customers. Our goal is to actively support customers in achieving their development goals and to make them more successful as a result. That is what we mean by

# Living partnership

One outstanding example of a successful partnership is our long-standing collaboration with US manufacturing and technology company Orizon Aerostructures. We were brought in by Orizon as early as the planning phase of the new production site in Grove for the development of appropriate processes around Orizon's business systems – long before the first machine was even sold. Find out more in our lead story.



from left to right  
Henry Newell, President of Orizon  
Charlie Newell, CEO of Orizon  
Douglas Henderson, Vice President  
of Sales (Aerospace), Starrag USA.

# Collaboration with Orizon sets new standards for machining aircraft components.

Orizon Aerostructures is a manufacturing and technology company with a significant presence in the Midwest: A total of 800 dedicated employees over six sites produce components and complex assemblies for the aerospace industry.

At the newly constructed site in the small city of Grove, in which \$50 million has been invested (including in ten ECOSPEED F 2060 machines), Orizon has installed a flexible manufacturing system which is based on nine of Starrag's Ecospeed five-axis machining centres. This system is currently setting new standards for machining aircraft components.

The flexible manufacturing systems – the largest integrated system of its type in the western hemisphere – is enabling the company to achieve:

- **At least a 30 percent reduction in machining times across all the parts, compared to former methods**
- **Considerable improvement in surface quality; significantly less deburring and polishing requirements**
- **Exceptional revenue/expenditure ratio and two to three times the per capita yield compared to conventional machining methods**

Vice President of Machining Josh Fink: “Working from the start with Starrag, together we have created an unbelievably formidable and highly successful partnership for world-class machining of aerospace parts.”

“It was clear, even before the first machine sale, that Starrag was willing to listen and to share and support our vision.

One way Starrag has done this is by offering excellent levels of knowledge transfer and assisting us in developing the appropriate processes around our business systems.”

“It was also clear that Starrag was a company we could truly trust and one with common values in attaining world-class machining results,”

he adds. “Even one chip not removed in one pocket timely could result in a \$20,000 part being scrapped – and nobody can afford that!”

Having achieved such gains in machining efficiency, Orizon is not resting on its laurels, however, as Josh Fink points out: “System performance is continually scrutinised, with conference calls every week between us and Starrag to discuss machine availability levels (currently 97%) and spindle utilisation (87% targeted). Yes, it's all very well having such targets but the key is being able to reach them. It's simply a case of continual improvement.”







During the Aerostructure Days at Orizon, numerous US customers were able to convince themselves of the performance of the Ecospeed manufacturing system.

# Content

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8	To our shareholders
11	At a glance
14	Highlights
26	Company profile
36	One for all
52	Management Report
58	Holistic sustainability

---

<b>62</b>	<b>Corporate Governance</b>
-----------	-----------------------------

---

<b>82</b>	<b>Compensation Report</b>
-----------	----------------------------

---

<b>90</b>	<b>Financial Report</b>
91	Financial commentary
97	Consolidated financial statements
124	Annual financial statements
134	Five-year overview

---

135	Financial calendar
-----	--------------------

## High-precision machine tools for greater productivity

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

The umbrella brand Starrag unites the product ranges Berthiez, Bumotec, Dörries, Droop+Rein, Ecospeed, 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 services subsidiaries in the most important customer countries.

The shares of Starrag Group Holding AG are listed on the SIX Swiss Exchange.

# Dear shareholders

As already announced during the course of the reporting year, Starrag Group's order intake in 2019 was lower than in the previous year. At CHF 343 million, it was 26% below the 2018 level (24% at constant exchange rates), which was the second-highest in the history of the company.

Sales amounted to CHF 418 million in 2019, surpassing the previous year's level by 8% (9% at constant exchange rates). The increase can primarily be explained by the high order intake in 2018, but can also be put down to the fact that it was possible to partly offset the delays in order processing in the reporting year thanks to various measures that were taken to improve project management.

The operating result before restructuring costs EBITR amounted to CHF 14.0 million, or 3.4% of sales (compared with CHF 13.0 million in the previous year). After restructuring costs of CHF 9.2 million, EBIT was CHF 4.8 million, or a disappointing 1.1%. After standing at CHF 0.9 million as recently as the first half of the year, EBIT improved substantially in the second semester thanks not least to a considerable reduction in restructuring costs.

As a result of the fall in EBIT, there was also a fall in net income to CHF 6.9 million (CHF 2.02 per share). The decline in EBIT was partly offset by the removal of tax provisions owing to the reform of corporation tax in various cantons.

Owing to higher net equity and lower liabilities, the solid equity ratio of 53% exceeded the previous year's level by around 5 percentage points, meaning that it was in the range of the past few years. Net debt, which had already been cut to CHF 5.3 million in 2018, turned into net liquidity of CHF 0.7 million in 2019. Contributing to this was free cash flow of CHF 8.3 million, which was achieved thanks to restrained investment activity and cash flow from operating activities remaining intact.

## First steps of the "Starrag 2021" programme realised

The "Starrag 2021" programme, which was adopted in April 2019 with the objective of a significant and sustainable improvement in profitability, is specifically aimed at optimising the product portfolio, comprehensively taking advantage of potential synergies, strengthening corporate leadership and improving project management. Numerous projects are in the process of being realised or, in some cases, have already been completed.

The new management structure has been in place since 1 July, with an increased focus on target markets and the associated application competencies. For example, the four operational business units were restructured according to product areas. Sales now come under group-wide management. Alexander Attenberger, the Chief Sales Officer designated for this, was originally due to take on the role in July 2020, but this has now been brought forward to April 2020. Supply chain management (procurement), manufacturing and component assembly have been integrated under the same management in the unit Group Operations in order to systematically take advantage of the group-wide synergies that are available. Finally, the position of a group-wide HR manager was also created. All these positions are now filled.



In the course of this group restructuring, the planned reduction in staff at the Mönchengladbach site was completed in the reporting year and mechanical manufacturing was concentrated in Chemnitz. This will effect annual cost savings of CHF 8 million to CHF 10 million from 2021.

Nothing changed in 2019 in terms of Starrag Group's basic strategy, i.e. concentrating on the market segments and regions that offer the best growth and earnings potential, in particular China and the US. With regard to the most important Asian market, namely China, we opened a new TechCenter in Shanghai in the reporting year in cooperation with the local university. The site, which covers an area of over 2'000m<sup>2</sup>, allows us to showcase our application expertise to customers using several machine tools.

Following the new strategy that we have been pursuing since 2016 and the systematic implementation of the "Starrag 2021" programme, we are sticking to our medium-term objectives of a growth in sales of 5% and an operating margin of 8%, albeit over a longer time horizon than originally envisaged.

### Successful trade shows and customer events

As usual, Starrag Group continued to attend trade shows in 2019 that were relevant to us with an up-to-date exhibition. In April, we again attended the China International Machine Tool Show (CIMT) in Beijing. The numerous interesting contacts made there have further strengthened the basis for future orders. Then came the EMO in Hanover in September, the most significant leading trade fair worldwide for machine tools. Here, we placed a particular emphasis on consistent customer orientation, as well as the high availability of our machines. Our in-house technology days have already become something of a tradition. They enable customers, strategic partners and the relevant specialist media, as well as institutions and universities, to meet in order to get a picture of the Group's latest developments and innovations. For example, the well-attended Turbine Technology Days event once again took place in Rorschacherberg in June.

### Value reporting enhanced

In the yearly ranking of annual reports conducted by HarbourClub in conjunction with the Swiss business magazine "Bilanz", our 2018 annual report did very well in coming 27th out of a total of 238 listed companies in the Value Reporting (print) category. This was 10 places higher than in the previous year. In Inrate's zRating for 2019, which rated the corporate governance of 174 companies based on numerous criteria, Starrag Group again did well in coming 26th.

### Changes on the Board of Directors and Executive Board

At the 2019 Annual General Meeting, Walter Fust, who is our Group's majority shareholder, took over as chairman of the board of directors from Daniel Frutig, who was not standing for re-election. There were various changes in the management in connection with the new management structure. Stefan Breu joined Starrag Group as head of the newly created Group Operations units. Bernhard Bringmann, who had already been working for the company since 2008, was appointed head of the High Performance Systems business unit. Marcus Queins is the new head of the Large Parts Machining Systems business unit. Finally, as already mentioned, Alexander Attenberger was appointed the future Chief Sales Officer in November.

## Outlook

Global economic developments will again be shaped by lots of political and economic uncertainty in 2020, not least the impact of the coronavirus, which cannot yet be gauged. This makes them increasingly difficult to forecast. These external influencing factors aside, Starrag Group is optimistic about its target markets in a longer-term perspective.

With regard to the order intake, we currently expect a figure in line with that of the previous year (in local currency), or a small increase in the best-case scenario. This depends not least on the behaviour of those manufacturers that – unlike Starrag Group – primarily supply the automotive industry, whose demand for machine tools has been declining for some time. It can be assumed that these manufacturers will continue to attempt to switch to some of Starrag Group's target markets, resulting in additional competitive pressure.

Sales in 2020 are expected to be significantly below the previous year's level owing to the weaker order intake in 2019. With regard to earnings, we expect EBIT before restructuring costs to be somewhat lower or unchanged compared with 2019. The measures taken in the previous year to cut fixed costs and improved project management offset a negative volume effect resulting from the lower order backlog.

## Dividends

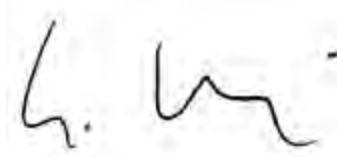
At the Annual General Meeting on 25 April 2020, the Board of Directors will propose a dividend in the form of a reduction in nominal value free of withholding tax amounting to CHF 1.00 per share. This corresponds to a dividend yield of 2.2% on the year-end 2019, or a payout ratio of 49%. It is therefore again at the upper end of the targeted range of 35% to 50%.

## Thanks

The Board of Directors and Executive Board would like to express their thanks to all members of staff for their commitment in the reporting year. We would also like to thank our customers and suppliers, as well as yourselves – our valued shareholders.



Walter Fust  
Chairman of the Board of Directors



Dr. Christian Walti  
CEO

# At a glance

## As expected, lower order intake and higher sales, while EBIT margin lower – order backlog still solid

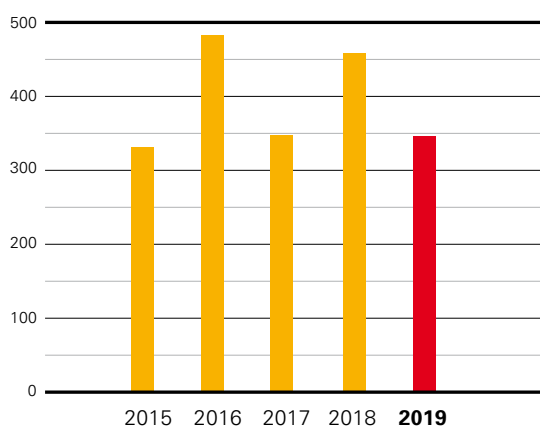
- Order intake down 26% to CHF 343 million (down 24% at constant exchange rates)
- Sales up 8% to CHF 418 million (up 9% at constant exchange rates)
- Solid order backlog of CHF 284 million
- Operating result before restructuring costs: EBITR up 8% to CHF 14 million, EBITR margin 3.4%, EBIT margin 1.1% %
- Net income CHF 6.9 million – earnings per share CHF 2.02
- Solid balance sheet with 53% equity ratio
- Profit distribution of CHF 1.00 CHF per share, payout ratio of 49% – i.e. at the upper end of the targeted range
- Initial effects of “Starrag 2021” programme can be seen

	CHF m	<b>2019</b>	2018	Change
Order intake		343.2	461.0	-25.6%
Order backlog end of the year		284.3	365.9	-22.3%
Sales revenue		418.1	388.8	7.6%
Operating result EBIT		4.8	11.1	-56.8%
Net income		6.9	8.4	-18.2%
EBIT as percentage of sales revenue		1.1%	2.9%	n/a
Cash flow from operating activities		10.5	26.9	-61.0%
Capital expenditure in non-current assets		5.1	7.1	-30.8%
Free cash flow		8.3	19.7	-57.7%
Employees (full-time equivalents, annual average)		1'514	1'516	-0.1%
Total assets		334.6	369.7	-9.5%
Net cash		0.6	-5.3	-112.1%
Shareholders' equity		178.1	176.6	0.8%
Equity ratio		53.2%	47.8%	n/a
Return on equity ROE		3.9%	4.7%	n/a
Earnings per share (in CHF)		2.02	2.49	-18.7%
Profit distribution per share (in CHF)		1.00 <sup>1)</sup>	1.00	0.0%

<sup>1)</sup> In the form of a reduction in nominal value free of withholding tax from CHF 8.50 to CHF 7.50 (proposal of the Board of Directors to the Annual General Meeting).

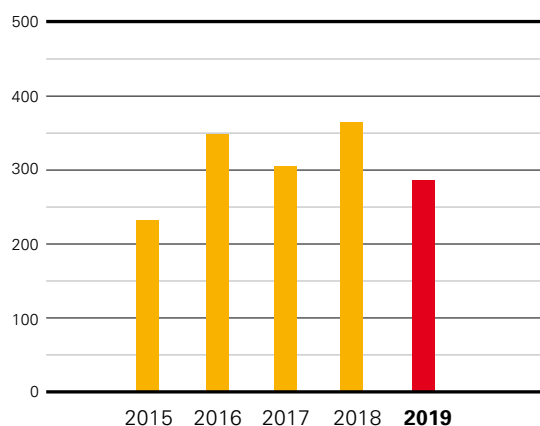
### Order intake

CHF m



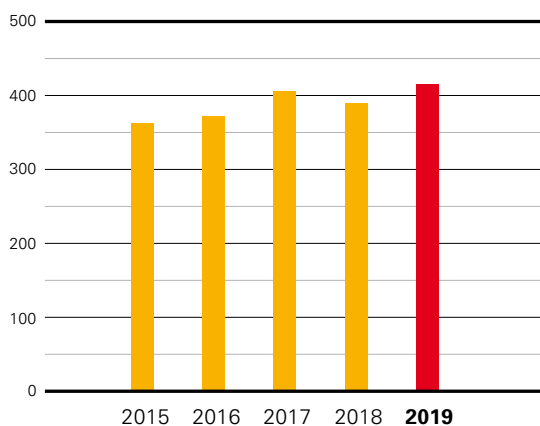
### Order backlog

CHF m



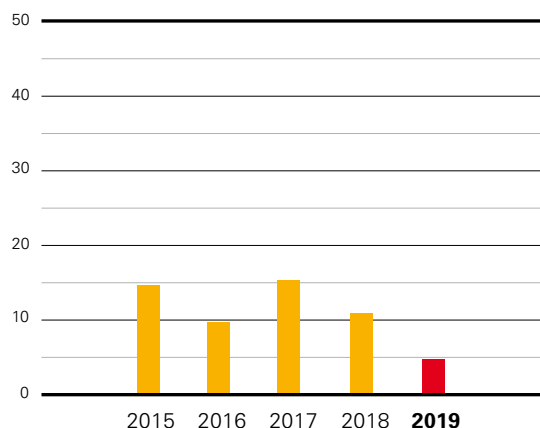
### Sales revenue

CHF m



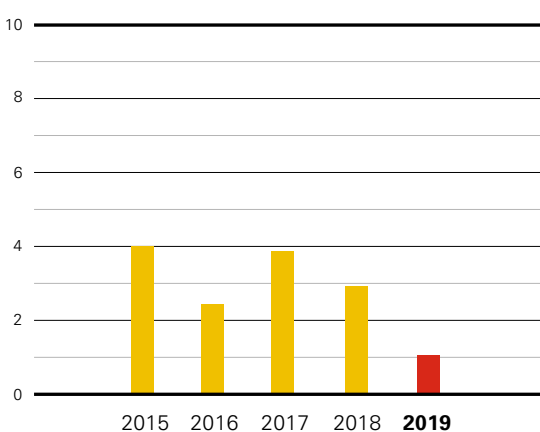
### Operating result EBIT

CHF m



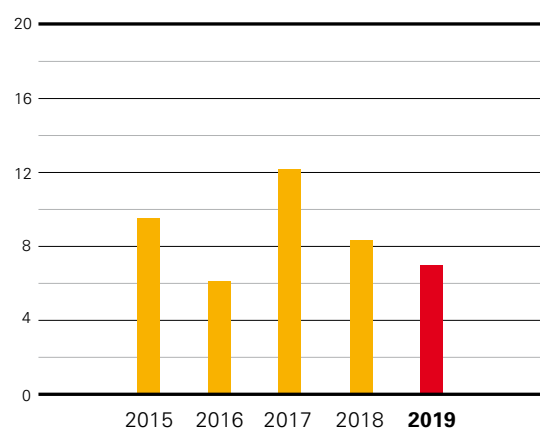
### EBIT as percentage of sales revenue

%



### Net income

CHF m

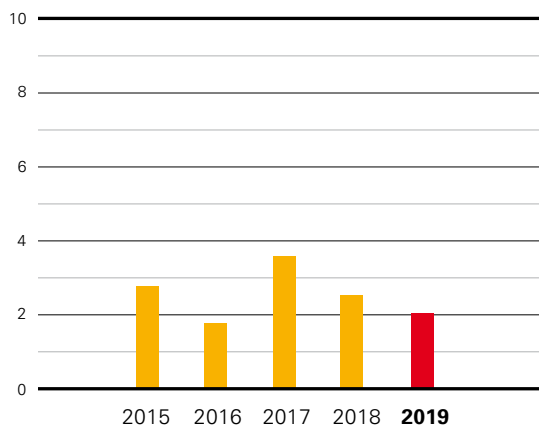


Since 2017, the financial statements of Starrag Group have been prepared in accordance with the Swiss GAAP FER accounting standards. The 2016 figures have been adjusted accordingly. The 2015 key figures are prepared in accordance with International Financial Reporting Standards (IFRS) and are only partially comparable to a limited extent.



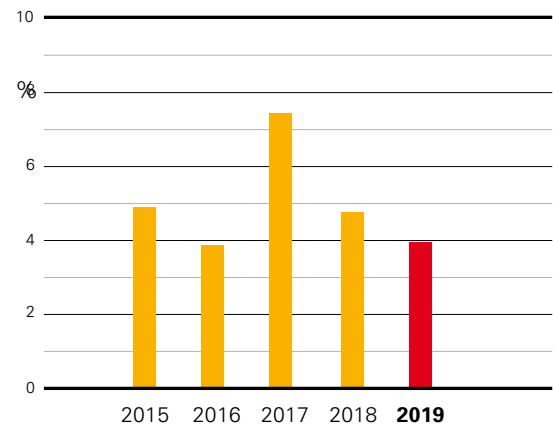
### Earnings per share

CHF



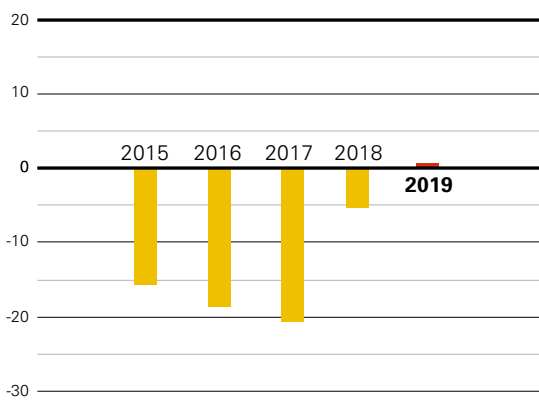
### Return on equity

%



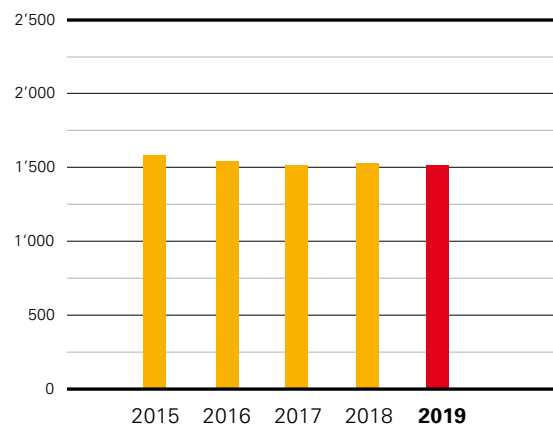
### Net cash

CHF m



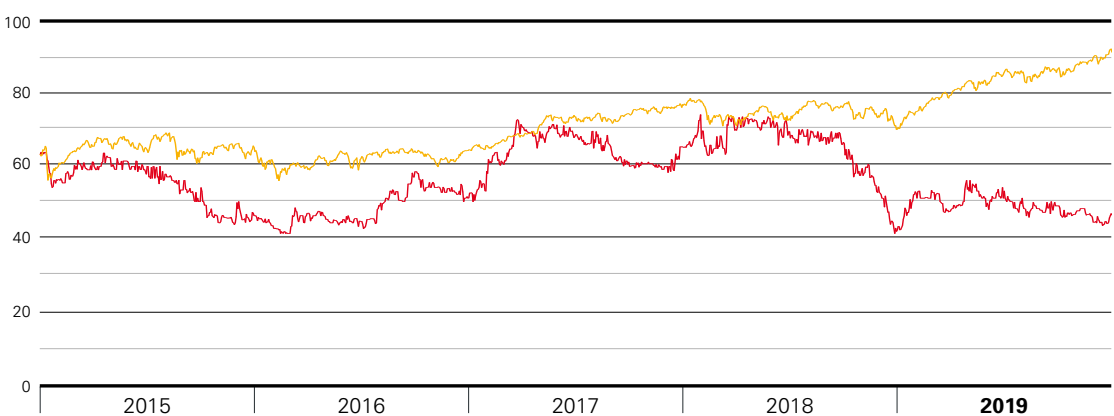
### Employees

full-time equivalents, annual average



### Share price

CHF



STGN   SPI indexed

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# Highlights

- 
- 15 Successful start for Starrag TechCenter in Shanghai
  - 16 Successful trade fair year
  - 18 Reliable production conditions with at least 95% machine availability
  - 19 Increasing efficiency in machining of fluid ends
  - 20 Manufacturing blisk rotors in a single clamping operation
  - 21 Starrag, Kennametal and Rolls-Royce offer aerospace specialists future-proof machining solutions
  - 22 New dimension in grinding roller bearings
  - 24 Starrag.com has a new digital appearance
  - 25 Double award for outstanding training

## Successful start for Starrag TechCenter in Shanghai

It may have only just had its official opening, but the new Starrag TechCenter in Shanghai can already show off some impressive figures. Five machine tools have already been installed on a surface area of 2,200 m<sup>2</sup> for the purpose of presenting application and mechanical engineering expertise to customers.



For demonstration there is a Starrag LX 051 (for turbine blades), a Starrag NB 251 (specially for impellers and blisks) as well as Bumotec s191 and s181 5-axis machining centres - ideal for applications in the areas of luxury goods, jewellery, medical and watchmaking. As well as a Heckert H50 machining centre for a wide range of industrial and transportation applications.



The innovations were presented to the visitors using live machine demonstrations.

## Successful trade fair year

In September the industry met at the EMO in Hannover, the world's leading trade fair for machine tools. Starrag has put special accents on a consequent customer orientation as well as on the extraordinarily high machine availability.

At one of our representative trade fair booths, the key issue of machine availability was showcased impressively to fellow trade professionals under the motto "95 Plus". With the promise of guaranteed machine availability of at least 95%, Starrag underlines the claim of a premium provider.

The expert talks, which were held at a trade fair for the first time, were particularly well received. Many new and excellent projects were initiated during excellent technical discussions with visitors.

Participation in the CIMT in Beijing was also successful. The leading trade fair for mechanical engineering in the vital sales market of China was well attended, and Starrag was able to benefit from this.







The expert talk with our specialists was confidently led by well-known presenter Miriam Rickli.



Many visitors were greatly impressed by the complexity and manufacturing quality of the exhibits on display as part of the presentation of the new NB machine series.



# 95Plus<sup>+</sup>

Machine Availability

## Reliable production conditions with at least 95% machine availability

Günther Eller, Head of Starrag Customer Service, explained the basic idea behind the ServicePlus offer in a discussion with Miriam Rickli and showed how this customer promise is individually implemented in practice.

ServicePlus is a complete solution for optimised availability and long-term machine value retention at a fixed price. Our customer environment and customer requirements are highly specialised and therefore ServicePlus is individually customised. In a close partnership, ServicePlus leads to success. Together with customers, we customise ServicePlus and set targets for availability. The results are monitored and reviewed regularly.

Identifying improvement potential and continuous implementation of improvement measures are integral to ServicePlus.

The basic content of any ServicePlus offer includes our annual preventive and predictive maintenance, spare parts, wear parts and repair service for OEMs, including warranty as well as priority access to Starrag's field engineers, technical hotline and remote diagnosis. Customised are parts storage and parts supply concepts, motor-spindle solutions, customer training, technology and production support. As previously mentioned, availability targets are set and a bonus-malus system for target achievement can be negotiated.



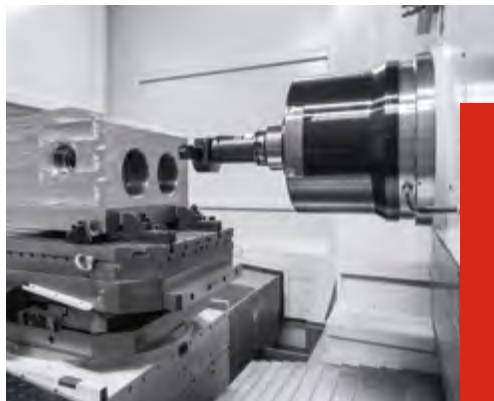
The main theme at EMO Hannover ServicePlus was accompanied by Miriam Rickli (presenter) and Günther Eller (Head of Customer Service).

## Increasing efficiency in machining of fluid ends: Heckert DBF 1000 enables an all-in-one process.

The Heckert DBF series from Starrag has made a name for itself with suppliers to the oil and gas industry thanks to its outstanding performance.

The series owes its success to the DBF head, which consists of a facing head with integrated work spindle and CNC radial cross slide. DBF is named for the German words for turning, drilling and cutting. One special feature of the series is the extended Z-axis path. This allows hydraulic connections in units, known as fluid ends, to be attached quickly and in a process-reliable way through long-hole drilling.

This is where the new Heckert DBF 1000 machining centre comes into play, allowing the user to perform heavy-duty cutting on fluid ends in housings weighing a maximum of 4,000 kg. The fluid ends made of stainless steel blocks are particularly demanding; they are designed for an average product life cycle of 2,000 to 3,000 hours. Accordingly, the complete machining process is also long and complex. However, one manufacturer has managed, with a DBF model, to reduce the overall machining process from 50 to 38 hours – equivalent to a time saving of more



The new Heckert DBF 1000 machining centre is particularly suitable for highly efficient heavy-duty cutting of heavy housings weighing up to 4,000 kg, such as on the fluid ends.

than 20%. This productivity gain has also been successful in very difficult machining tasks such as spherical drilling.

### **DBF machining centre replaces two roughing machines and one sizing machine**

Doug Henderson, Vice President of Sales at Starrag US, reports on an especially successful deployment in the USA: "Thanks to the all-in-one process, there is no need for separate roughing and sizing machines and no associated costs. A single DBF machining centre has even replaced two four-axis roughing machines and a four-axis machining centre."



Thanks to an additional six-pallet linear storage system and 320-ATC tool changer, the new Heckert DBF 1000 machining centre can also work without human intervention.

## Manufacturing blisk rotors in a single clamping operation

Machining blisks and impellers efficiently and reliably in a single working step saves both time and money.

Thanks to the five-axis Starrag NB 151, which has been specially designed for such machining processes, users from the aviation, aerospace and energy sectors can benefit from these advantages. Users of the new Starrag NB 151 can expect to benefit from short cycle times, reduced tool costs and a low amount of wastage. As with the larger models in this range of five-axis machining centres, the NB 151 can perform all relevant production steps for manufacturing blisks and impellers – from the efficient roughing of components from a single piece of material to the adaptive machining of friction-welded blisks, right the way through to the highly dynamic smoothing of flow surfaces in point contact.

The two circular axes are among the highlights of the NB 151; specially developed for blisk machining by Starrag in Rorschacherberg, they are 100% made in Switzerland. Without compromise, the axes have been optimised for performance in multi-blade applications, as their layout has been carefully designed to reduce compensating movements of the linear axes to a minimum.

One key factor for successful blisk machining is being able to access the component easily. This is ensured by the wide 280-degree angle of the B-axis, as well as the incredibly compact A-axis. The machine's optimised obstacle contour both prevents collisions with the spindle and allows the use of shorter tools. The resulting cutting stability ensures the shortest possible roughing times and perfect surfaces after smoothing.



In addition to shorter cycle times and reduced tool costs, the new Starrag NB 151 also guarantees significantly lower wastage.



## Starrag, Kennametal and Rolls-Royce offer aerospace specialists future-proof machining solutions

A number of aerospace production specialists were briefed on a range of new manufacturing findings at the Advanced Manufacturing Research Centre (AMRC) of the Boeing Centre in Sheffield.

The event not only offered technical presentations, for example on the advantages of the Starrag machining centres and a range of new developments from Kennametal, but also featured demonstrations of the optimal machining processes of Inconel and titanium workpieces at the Starrag STC 1250 machining centre of the AMRC. The talk by Dr Jamie McGourlay, Technology Partnership Manager at Rolls-Royce, on the subject of “High Performance Manufacturing” was also met with great interest.

Dr McGourlay spoke about the manufacturing services of Rolls-Royce and how they have developed over the past decade in collaboration with the AMRC. These services include process modelling, intelligent devices, multi-tasking processing and the use of advanced milling technologies.



The 60 participants also learnt interesting facts about innovative products from Kennametal, such as the flat-bottom drill for fast and effective pre-drilling of pockets and corners, or the KM4X toolholder which has already been successfully installed in a Starrag STC 1000 machining centre.



The new KM4X toolholder from Kennametal boasts an extremely high clamping force.

## New dimension in grinding roller bearings: Major Chinese manufacturer orders Starrag machine

A smart combination of robust mechanical engineering and clever software has arrived in the wind energy sector, as proven by an order Starrag has received from China.

A new Berthiez machining centre will be built by the beginning of 2021 – with a degree of concentricity and axial run-out accuracy of four to five micrometres, it will set new standards in the high-precision cylindrical grinding of roller bearings with a diameter of up to 4.5 metres. The French subsidiary of the Swiss Starrag Group has proven that it meets these requirements for smaller roller bearings. Its latest machine builds on this success and will now help China to write a new chapter in the production of wind turbines: The planned

wind parks will need turbines in the multi-mega-watt range. Their new towers already have wings more than 100 metres in length. “China wants to install much larger wind turbines, which currently require roller bearings with a diameter of up to 4,500 mm,” reports Jean Luc Baechlé, Plant Manager of the Starrag plant in Saint-Etienne. “That is why we have also received the order from a large Chinese manufacturer in the roller bearing sector to construct a large vertical grinding machine to start operation in 2021.”

The horizontal, hydrostatically mounted tool table plays a key role too – it is driven by a powerful torque motor with a maximum torque of 12,000 Nm in permanent S1 operation. Until now, Starrag has supplied many vertical grinding machines for components with a diameter of up to 2,800 mm, but now it has extended the assembly unit due to growing demand. The table of the RVU 4700/450 is therefore designed for 12-tonne workpieces with a diameter of up to 4,500 mm. The new, larger design rests on bases that can grow with the workpiece size.



Dr Marcus Queins, Head of the Large Parts Machining Systems business unit, explains: “Thanks to the specially prepared cycles for a wide range of precision bearings, the Berthigrind software supports the user with regard to grinding in many sectors”.



**Built for XXL and maximum precision:**  
The new Berthiez RVU 4700/450 grinding centre has a hydrostatically mounted tool table designed for 12-tonne workpieces with a diameter of up to 4,500 mm.

“Within the Group, we are combining the assembly units from Droop+Rein and Dörries with the grinding expertise of Berthiez to create one synergistic portal assembly unit”, explains Dr Marcus Queins, Managing Director for the Large Parts Machining Systems business unit. “This new development is a grinding centre that can also be used for turning.”

It is a machine that has been developed and constructed for high-precision cylindrical grinding in new dimensions. The keyword is “shadow-free” grinding of roller bearing surfaces, which record a concentricity and axial run-out accuracy within a range of four to five micrometres, even with a huge diameter of 4,500 mm.

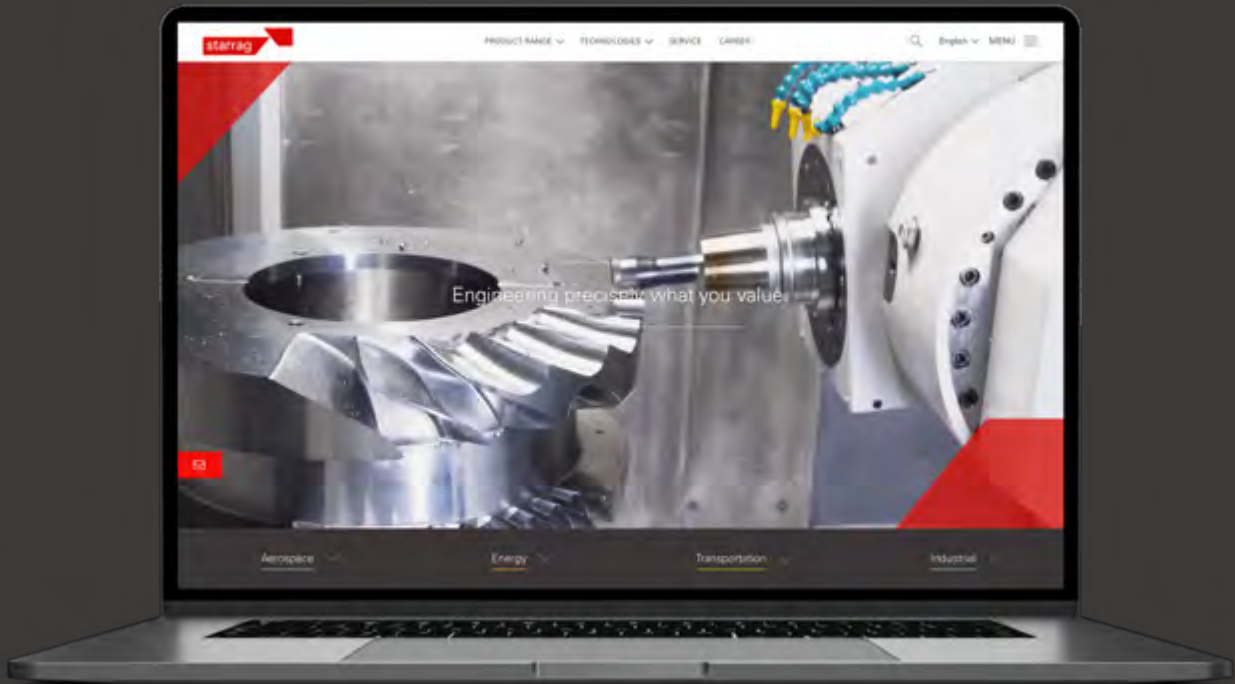
But what can the machine do better than comparable plants, and how does it reflect the Starrag claim of “Engineering precisely what you value”? According to Baechlé, aside from the high level of availability and reliability, customers are mainly impressed by the high accuracy in the very large work space.

“You find out how extremely tough and specific the demands are on precise roller bearings for wind power when you assess these drives up close at a later point in time,” explains Dr Queins. “For example, this includes shadows that are almost impossible to measure. This is understandable as these properties influence the service life of the roller bearings. The dimensional and shape accuracy in micrometres, as well as the surface quality, therefore play a crucial role.” Starrag has now successfully transferred the micrometre precision of smaller work spaces to much larger work spaces.

And that is where the digital icing on the cake – including with regard to “Industrie 4.0” – comes into play, namely the Berthigrind software, which enables high-precision machining within the micrometre range to run as a partially automated process. Dr Queins explains: “Thanks to the specially prepared cycles for a wide range of precision bearings, we are able to support the user with regard to grinding in many sectors.”

## Starrag.com has a new digital appearance

The new Starrag website was launched at the beginning of September in time for the leading EMO trade fair in Hannover. The impressive new design is highly user-friendly and has a clear information structure.



Technologically up-to-date, the new website offers fast navigation to the information you need and a consistent focus on customer needs.

The application focus provides a quick overview of Starrag's services. Given their importance, the Investor Relations and HR pages have also been given their own sub-website homepage.





## Double award for outstanding training

Starrag sees the training of junior staff as the answer to the long-running shortage of skilled workers. In the year under review, this commitment was recognised twice by the IHK Industrie- und Handelskammer Mittlerer Niederrhein IHK (German Chamber of Commerce and Industry).

In 2019, a total of 5,530 trainees were assessed in the Central Lower Rhine region. Of these, 300 graduated with a “very good” mark, including our very own Saskia Schmitz, who successfully completed her training as an industrial clerk at Starrag Technology GmbH. The ceremony took place on 15 November, 2019 at the Kunstwerk venue in Mönchengladbach. The honour was awarded by the President of the Chamber, Elmar te Neues, and Managing Director Jürgen Steinmetz.

In addition to this personal honour, the IHK additionally named Starrag Technology GmbH as “Best Training Company 2019”.





# Company profile

## Vision and strategy

Starrag Group is a leading manufacturer of highly productive and sustainable comprehensive solutions for precision milling machine tools. Its preferred partners are internationally active companies in the Aerospace, Energy, Transportation and Industrial (Industrial Components, Luxury Goods, Med Tech) sectors. It offers a comprehensive range of high-end precision machine tools, which includes the most up-to-date technology and services and generates significant and lasting quality and 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 through technological and service-orientated leadership
- Qualified and motivated employees
- High internal flexibility
- Solid financial basis
- Innovative management

We focus on the most promising market segments and regions – i.e. those with the best growth and earnings potential, namely the priority markets that are Europe, the US and China – paying particular attention to the aspect of services.

## “Starrag 2021” programme

The Group’s inherent growth and earnings potential has hitherto not been exploited consistently enough. This challenge has been recognised and is reflected in the “Starrag 2021” programme with a clear ambition to achieve the medium-term growth and earnings targets as quickly as possible and sustainably. An even stronger focus on the needs of the customer, an increase in competitiveness and a comprehensive optimisation of the entire value chain are at the heart of this so as to bring about a

sustainable improvement in operational excellence throughout the Group and ultimately a clear and long-term improvement in profitability. Specifically, “Starrag 2021” focusses on optimising the product portfolio, taking full advantage of potential synergies, strengthening corporate governance and improving project management.

In order to achieve these objectives, a new group structure came into effect in mid-2019 that is even more heavily geared towards the requirements of the target markets than before. Accordingly, the management structure is composed of four operating business units that are geared towards products and applications, as well as three group-wide areas. The business units have been restructured according to product areas (clusters) with a view to exploiting synergies:

- High performance systems: Product areas Starrag, Ecospeed, TTL
- Horizontal machining systems: Product areas Heckert, Scharmann/Ecoforce, WMW
- Large parts machining systems: Dörries, Berthiez, Droop+Rein
- Ultra precision machining centres: Bumotec, SIP

These four business units concentrate on development, project engineering, order fulfillment, design, operational purchasing, final assembly, delivery and customer acceptance in terms of the services offered.

The three areas under group-wide management are Customer Service, Group Operations (synergy exploitation in supply chain management, strategic purchasing, manufacturing and assembly of components) and Sales with three teams for the Aerospace, Energy, Transportation and Industrial sectors. The regional sales organisations are also allocated to the central sales area.

## Market positioning

The strategic focus determines Starrag Group's market positioning, which can be summarised in the following claim:

"Engineering precisely what you value". On the one hand, this claim expresses one of Starrag Group's most important core competencies: Engineering – the outstanding capabilities of our employees enable us to manufacture machine tools for the upper quality segment which stand out for the top performance that they provide and, in particular, their precision. We also offer all associated services for this segment.

Precisely – stands on the one hand for precisely this precision and on the other hand for our consistent customer focus. Our customers receive individual solutions that provide them with added value and for which they are also willing to pay: What you value!

No more, but also no less. We work consistently to focus our work on bringing profitability, growth and security to our customers and their needs, in the sense of a partnership that is reliable in every respect.

## Brand strategy

The umbrella brand Starrag unites the product ranges Berthiez, Bumotec, Dörries, Droop+Rein, Eco-speed, Heckert, Scharmann, SIP, Starrag, TTL and WMW. The common brand stands for the four core values that apply throughout the Group and are lived by: competent, focussed, dynamically and successful in partnership. It expresses a shared understanding of our objectives, values and services. With regard to the market, this means individual customer solutions based on common values.

## Customer sectors

Starrag Group's products and services are concentrated on the four customer sectors, i.e. Aerospace, Energy, Transportation and Industrial. These sectors are sub-divided into 11 market segments according to the applications specifically requested.

### Aerospace

Aerospace comprises the market segments Aero Engines, Aero Structures and Avionics.

#### The Aero Engines market segment

Designing aircraft engines requires maximum efficiency, low kerosene consumption and lower noise pollution. This requires ever-greater precision in the cutting of 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 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 pollution. 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 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**

Energy comprises the market segments Oil & Gas, Power Turbines and Renewables.

#### **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.

#### **The Power Turbines market segment**

In the field of turbo machine engineering, Starrag Group has the most experience in the machining of high-precision flow components. 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.

#### **Renewables market segment**

Thanks to a clear focus on applications such as gearbox housings, planet carriers, torque arms, large bearing or Pelton turbines, we are able to create measurable added value in the renewable energy sector, for example in the wind energy sector.

### **Transportation**

Transportation comprises the market segments Heavy Duty Vehicles & Engines and On-Road Vehicles.

#### **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.

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

This segment comprises technical solutions for the production of high-precision vehicle components for cars, lorries, 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.

## Industrial

Industrial comprises the market segments Industrial Components, Luxury Goods and Med Tech.

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

This segment 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.

## Product ranges

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 11 precision machining product ranges under one roof, boasting a wide range of competencies that few rivals can match.

The product ranges operate under the name of Starrag, together with the figurative mark in red denoting high-precision machining capabilities. Both are registered and protected nationally and internationally. The product ranges are used in all corporate and marketing communications, especially at leading fairs with a high international standing, at specialised trade fairs with a strong regional attraction and in our new customer magazine "Starrag Star". The best trademark ambassadors can be found in our installed base at customer sites around the world, where every day our machine tools substantiate our claim of engineering precisely what the customer values. We assess perception of our appearance in the marketplace during our regular contact with customers.

### **Berthiez**

Maximum precision in vertical turning and cylindrical grinding: Outstanding solutions for the aircraft engine and roller bearing industry based on specialised 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**

Synonym for 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.

### **Ecospeed**

The most productive solution for high performance machining of aluminium structural components on the market: The patented parallel kinematic machining head Sprint Z3, the heart of the Ecospeed series, surpasses the performance of all conventional bent axis and fork milling heads and enables performance increases of up to 87%.

### **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/Ecoforce**

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.

### **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. All production facilities are part of our production network, which enables us to balance capacity and risk. Our development and technology centres are also situated in these locations. We use our exemplary technological expertise across all segments throughout the Group.

## **Keys to success**

Sustainable commercial success, as Starrag Group has distinguished it for many years, is based on a number of strategic success factors that we continue to nurture consistently: individual customer focus, global presence, continuous innovation, consistent efficiency enhancement and profitable, long-term orientated management.

### **Individual customer focus**

Starrag Group largely operates discrete manufacturing according to the individual, and therefore very different, needs of its customers. In addition to stand-alone machines, there is a growing focus on system solutions in which individual Starrag machines are integrated into customer-specific, flexible manufacturing systems. As a result, almost all the machines delivered are distinct items.



### Global presence

Starrag Group is represented in the most important industrial centres (Europe, Asia and North America). Our international customers value short and direct communication channels. Experienced local sales, application and 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 optimised transport routes and decentralised spare parts warehouses ensures fast and efficient parts supply. The intensive customer contact up to the delivery and commissioning of the machines, as well as the operating phase, enable a continuous and comprehensive survey of customer satisfaction. This is all the more so as Starrag Group tends to serve specialised larger 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-orientated 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.

### Systematic increase in efficiency

As the overarching link, the Group ensures Starrag's high quality expectations and opens up synergies along the added value chain – from product development and purchasing to sales and service. This includes, for example, the development of joint modules that can be used and processed in various companies throughout the Group. Internally, this requires continuous improvement in procedures and processes to increase productivity. This is the task of our Business Process Management, which simplifies and standardises processes wherever it makes sense. Defined key processes are regularly checked and improved. The best possible distribution of risk in terms of markets and regions, as well as a solid financing structure, should ensure growth and innovation over the long term.

### Attractive for shareholders

Five key components make shares in Starrag Group attractive for long-term, value-orientated investors.

### Positioned in sustainable megatrends

We serve markets that are characterised by sustainable growth potential due to global trends and challenges: increased mobility (aviation and land transport with their demands on safety and fuel efficiency), investment needs in the global infrastructure (lorries and construction machinery), nutrition for a globally growing population (efficiency in agriculture), increasing need for energy with improved energy efficiency at the same time. In addition, increasing demands on the production efficiency require higher precision in production, both with larger workpieces such as structural parts for aircraft or ship propellers and with increasingly small and complex workpieces such as precision mechanics, watches and medical technology. This is exactly in line with the core competencies of Starrag Group. Experts estimate that we have access to a market potential of around CHF 4.5 billion worldwide in our four customer sectors, which is more than ten times the current sales revenue. This means that substantial growth opportunities still open up for Starrag in these long-term growing markets.

### **Innovation leadership as a key differentiating element to the competition**

Starrag Group focusses its innovation activities systematically on customers and their individual needs, with a focus on the high-quality segment and the Group's own expectation of technological and service-orientated leadership. Every year, we invest a disproportionate share of, on average, around 7% of our sales in research and development and, in addition, maintain close contact with the science sector. Our customers and other market experts confirm this technology leadership of the globally recognised brand Starrag – but also of our individual product ranges. We are also well on the way to “Industry 4.0”, for example by networking with our customers' production systems. We systematically modularise our machines in order to expand the application possibilities of existing machine series to other market segments served by Starrag Group while reducing complexity. Thanks to the core competency of Starrag Group in optimising the overall system of machine – software – application – system integration – customer service, we not only create added value for our shareholders, but also for our customers.

### **Focussed strategy – reduced to the max, but this from A to Z**

As part of its clear brand strategy, Starrag Group focusses on the most promising market segments and regions – i.e. those with the strongest growth and those that are the most profitable – committed to providing our customers with our solutions for profitability, growth and security, in the spirit of a partnership that is reliable in every respect. We support our customers through professional customer service organisation, which makes a significant contribution to the profitability and stability of Starrag Group with its innovative service products. Operational excellence with clear processes and reduced complexity is a key element for us. In this way, we can differentiate ourselves from our competitors and provide our customers with tailor-made added value.

### **Forward-looking management with undisputed track record – major shareholder ensures continuity**

The entrepreneurial members of our management team and Board of Directors have many years of professional and managerial experience in industry, in particular the machine tool industry, and are therefore very familiar with its specific challenges and cycles. This is not only an important basis for careful planning, but also for the corresponding reliable external communication, for example with our investors. The focus on four customer sectors means the Starrag leadership team already occupies a top ten position in all four sectors today: In Aerospace and Energy, we are even among the top three suppliers worldwide. With Walter Fust, Starrag Group has a majority shareholder with a long-term focus who, as an engineer, is very familiar with industry and its challenges and has successfully created a group of companies that specialises, among other things, in customer service. The corporate governance of Starrag Group is committed to the highest standards, which has also been honoured in various external ratings

### **Solid financial basis and management with long-term orientation using modern, value-based instruments**

Primarily, the financial management of Starrag Group is consistently focussed on growth and increasing profitability. We measure these by the following key performance indicators: growth in sales revenue and order intake, operating profitability (EBIT margin) and return on equity (ROE). Starrag Group's history of reliably distributing a dividend year after year with a planned payout ratio of 33% to 50% of net profit results in an attractive dividend yield (applied payout ratio for the financial year 2019: 49% or dividend yield of 2.2% on the year-end 2019). For many years, Starrag Group has been able to report sustainable positive results. Even during the 2008-09 financial crisis, we were able to continue to distribute dividends without interruption. Starrag Group's

extremely sound financing and capital structure – with an equity ratio traditionally of around 50% – is not only the basis for reliable dividend payments. It is also a valuable foundation for the long-term capital goods business and the successful conclusion of suitable, complementary acquisitions.

### Outlook: Creating long-term value

Starrag Group aims to achieve profitable growth in the interest of its sustainable, value-enhancing positioning, based on a strong financial base and a stable shareholder structure with a renowned anchor shareholder. We expect our activities to generate an EBIT margin of at least 8% on average over economic cycles and to earn the cost of capital. We intend to achieve this financial requirement in the future by means of clear strategic positioning, a further improvement in operational excellence and the use of economies of scale – operating leverage – with increasing sales and consistent cost management.

At present, Starrag Group cannot be satisfied with its earnings performance. Measures have therefore been taken to optimise the entire value chain. This involves increasing the transparency and controllability of project management, reviewing the profitability of the entire product portfolio and systematically continuing employee development. The aim is to achieve a significant and sustainable improvement in operational excellence at all levels and in all areas. The basic strategy will be further sharpened by the Board of Directors and the Executive Board.

Although recent growth has been driven primarily by acquisitions, organic growth will take precedence over the coming years, with potential synergies across the Group being exploited consistently. In the medium term, we aim for an annual increase in sales of 5%. We expect this growth as a result of the worldwide scalability of our expertise in areas of activity and markets in which we have not yet achieved the desired leading market

position. In addition, we are focussing on further strengthening and expanding our service business.

The focus on organic growth does not rule out further complementary acquisitions in individual cases. The basic prerequisites for this continue to be the strategic “fit”, an attractive and complementary market and product portfolio, cultural compatibility and, last but not least, an attractive valuation.

We remain committed to our sustained ambition to play a leading role in all four of our customer sectors.

# Milestones in the company's history

1890 1910 1920 1950 1960 1970 1980 1990 2000

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.

2002

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



2011      2012      2013      2014      2015      2016      2017      2018      2019

## 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.

## 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.

## 2019

New group structure: composed of four operating business units that are geared towards products and applications, as well as three group-wide areas: Sales, Group Operations and Customer Service.





Customer Story: Aerospace  
Premium AEROTEC\_Varel, Germany



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A highly  
dynamic duo



**Benchmark:** Tripod technology is still the most advanced in the world when it comes to machining complex aluminium parts.



# Benchmark in the aircraft industry

Premium AEROTEC's Varel plant in north Germany produces highly complex machining components made of aluminium and titanium using one of Europe's most advanced pool of machines. And this pool has recently been boosted by a new, highly dynamic duo: A Starrag ECOSPEED F 2040 flexible manufacturing system consisting of two linked machining centres.

It was almost 20 years ago that Europe's largest aircraft manufacturer first took a chance on the parallel kinematics of the ECOSPEED product lines – a technology that was revolutionary at the time. Thanks to highly dynamic five-axis simultaneous cutting with a tripod head, these machines still set the benchmark for machining large, complex aluminium structural components today, especially in the aviation industry.

*“In addition to their reliability, it was the high overall dynamism of the ECOSPEED machines that won us over,”*

explains Christian Welter, Head of Large-Part Production at Premium AEROTEC. “That's why for our latest investment we chose two ECOSPEED F 2040s which were linked to the flexible manufacturing system.”

A new angled milling head that can be changed automatically now enables aluminium workpieces measuring up to four metres long to be machined on the FMS – not just completely but in a single clamping operation too.

Flexibility is a must, since the aircraft manufacturer currently machines 700 different components on its ECOSPEED machining centres alone, for clients including Airbus and the European Space Agency ESA (for Ariane 6).



**Christian Welter**, Head of Large-Part Production, and cutting machine operator Kjell Leushacke during a quality check on the Starrag FMS.



**Logistics:** A conveyor system with double loading trolley takes care of workpiece handling in the background.

**180° Index machining:** The angled milling head makes it possible to carry out special cutting and drilling operations such as envelope machining, which was previously done afterwards on a different machine.





Customer Story: Energy  
**KOSO Kent Introl Ltd, West Yorkshire, UK**







# When the head decides

**Instead of two machines:** The Heckert 630 DBF allows valve housings to be fully machined in one or two working steps. This means that this five-axis machining centre can produce significantly more parts per week than two separate machines.

# Highly productive complete machining in a single clamping operation

Once again, the British valve manufacturer KOSO Kent Introl showed it has its “head screwed on correctly” by opting for a Starrag machine. The British company have recently began to use a five-axis horizontal machining centre, Heckert DBF 630, with the “smart” DBF head, because it handles the highly productive complete machining process in a single clamping operation.

“In the past, we needed two machines for complete machining,” explains production manager Richard Addy. This time-consuming procedure is now a thing of the past: the magic word is DBF. The three letters stand for the integrated turning, drilling and milling head (German: Dreh-, Bohr, und Fräskopf), which enables the turning, drilling and milling of non-rotationally symmetrical parts in a single clamping operation with only one toolholder and thus reduces unproductive downtimes for handling and setup.

“Because of our good collaboration with Starrag, we didn't hesitate to invest in a Heckert DBF 630,” says Addy.

“It offers machining functions and specifications that far exceed our requirements for valve body machining.”

## **Efficient complete processing without waiting times**

“Not only are separate machining processes no longer needed, but the Heckert DBF considerably simplifies the production process too,” he continues. “We now machine the parts completely – from raw material to finished part – in a single clamping operation, without waiting times.

This means that this five-axis machining centre can produce significantly more parts per week than two separate machines.” The previous requirement of multiple clamping operations on the lathe no longer exists, and the additional waiting and setup times for the boring mill are dispensed with. Addy: “All of this has resulted in considerable time savings.”

Regular customers who have been using Starrag machines for many years are excited by the new machine. Only Starrag machines are in heavy-duty cutting. The Starrag newcomer is also well received. “Starrag machines have always demonstrated reliability and consistently high-quality machining results,” emphasises the production manager.

In view of the “always excellent service and the support of the company” provided by the Starrag customer service team, it was therefore appropriate to also use Starrag's production technology for smaller valve housings.

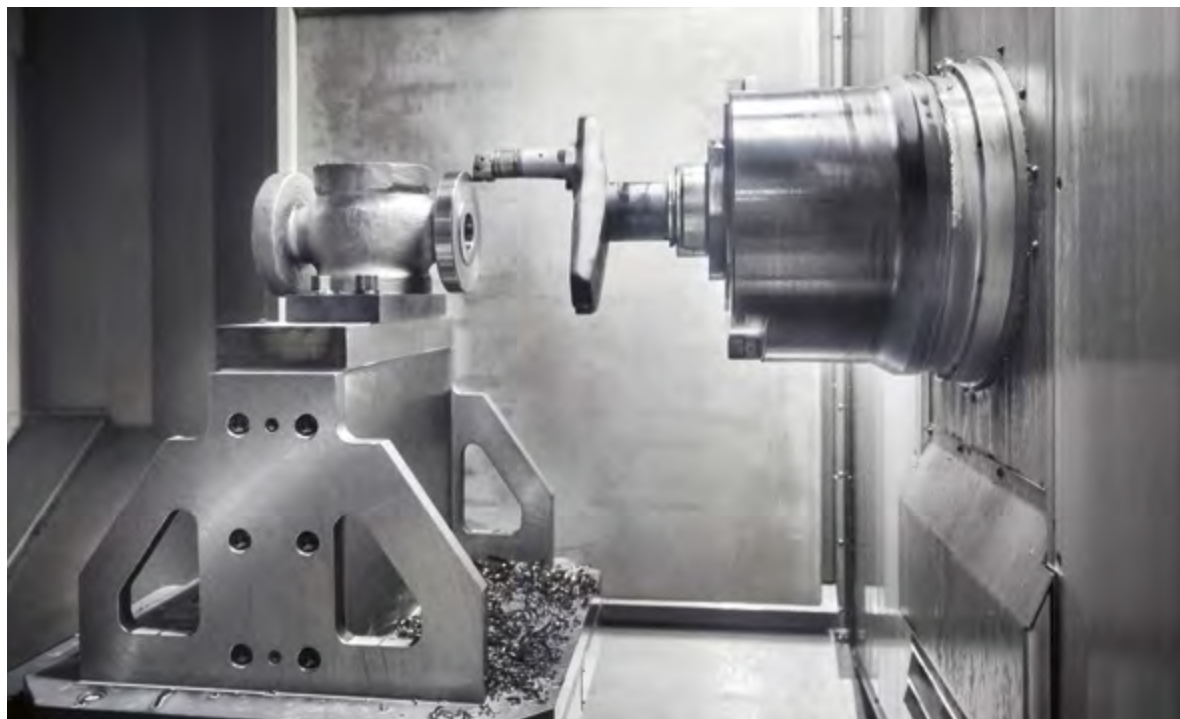
“The new Heckert DBF offers the same productivity advantages as the larger Scharmann machining centre: it effectively improved the entire production process.”





**Richard Addy, production manager at KOSO Kent Introl:** "Not only are separate machining processes no longer needed, but the Heckert DBF considerably simplifies the production process too."

**Efficient manufacturing:** On the Heckert DBF 630, workpieces are manufactured completely – from the raw material to the finished part – in one clamping operation and without waiting times.





Customer Story: Energy  
**Neumann & Esser GmbH**  
**Übach-Palenberg, Germany**







—  
XXL  
satisfaction

**Machinist Jürgen Seek:** "The machine can do much more. We've never been able to really wear it out – not even when even test-machining titanium."





The strength of the Starrag Droop+Rein T portal machining centre lies in complete machining, which is performed with or without coolant depending on the workpiece. Minimal-volume lubrication, however, is not required owing to the high-strength materials.

## Starrag portal milling machine: smooth operation in the Rhineland

“And there at the back is the Droop+Rein, one of our best workhorses in the stable,” says Alexander Peters, Managing Partner of NEUMAN & ESSER GmbH & Co. KG from Übach-Palenberg near Aachen (NEA GROUP), while on a tour of the company. “We are very satisfied with this machine tool, its performance and the service provided by the manufacturer.”

He is talking about a Starrag portal machining centre with adjustable crossbeam and movable clamping table (Droop+Rein T 30 40 DT R50 C). Currently the largest machine tool investment in the history of the NEA GROUP, it has proven itself in the complete machining of components – and especially demanding machine components – since 2011.

Machinist Jürgen Seek, who was working on a 45-tonne crankcase made of ductile cast iron (GGG 40) during our visit, is also satisfied with this investment.

**“Thanks to the use of ceramic tools, we can largely manage without coolant,”**

Seek explains of the dry machining process. He is glad he no longer has to reclamp the workpiece multiple times. The gigantic component is machined

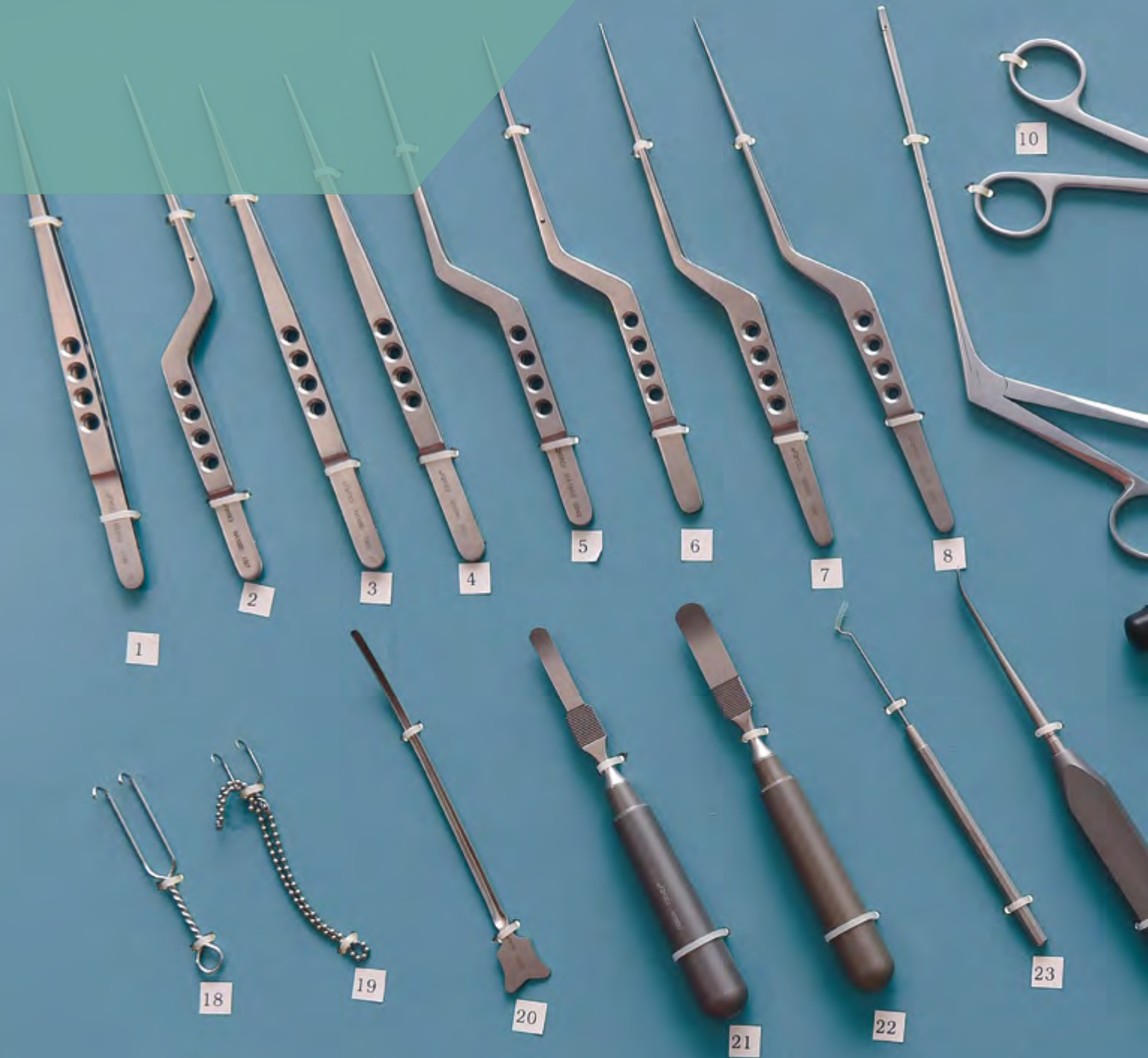
in three steps: After milling the lower, lasered surface, Seek rotates the housing by 180° to allow the bottom of the housing to be machined. He then turns the GGG-40 component back to its initial position for complete machining.

The NEA GROUP has not regretted their decision. The investment has paid off because, depending on the size, the machining time has fallen by an average of 30 to 40% and accuracy has doubled even in critical areas. Tolerance in the bearing race is now only 20 µm instead of 40 µm. Starrag checks the geometry completely every two years and realigns it if necessary. Simon Prell, Head of Mechanical Manufacturing: “So far the realignment has been to such a small degree that we could actually go without it.”

**Machinist Seek** is glad he no longer has to laboriously reclamp the workpiece multiple times during the complete machining of a 45-tonne crankcase made of ductile cast iron (GGG 40).



Customer Story: Industrial  
**Shanghai Medical Instruments Co., Ltd.**  
Shanghai, China





# Door opener for minimally invasive equipment



**Production volume:** More than 10 million medical devices are produced every year in the four production facilities of Shanghai Medical Instruments (Group) Co. Ltd.

# Chinese company relies on Bumotec

In the vast city of Shanghai, home to many international companies and firms which are well established on the national market, one such company has met with great success in the medical industry since 1928. Hidden in the more traditional suburbs of Shanghai, this thriving company is investing in Starrag technology and making its way to the top.

Shanghai Medical Instruments (Group) Co., Ltd. is a company in the Yuwell Group. Inside its four medical equipment production plants – including three finished product workshops and one workshop dedicated to forging, surface finishes and heat treatments – the company produces over 10 million parts which are used in hospitals throughout China and also in some developing countries.

**Your company produces a vast range of products. Can you tell us what your product portfolio comprises?**

Since we specialise in medical equipment, our largest market is for essential equipment such as clamps, scissors and surgical knives. Our market share in China is around 50% for these products.

**Why did you choose machines from the Bumotec range to produce your medical parts?**

Our conventional processes and machines were unable to produce minimally invasive instruments effectively. With Bumotec machines, we can work from bar stock to produce complete parts, i.e. six machined faces including finishes, with a single clamping operation and in record time. This has enabled us to increase productivity and efficiency and has enabled our company to reap vast benefits.

The latest machine performs surface finishing on the sixth side at the same time, which has increased our productivity by 20% on some parts.

**Can you give us a specific example of parts you have produced using your Bumotec machining centres?**

Since we received our first Bumotec s192 centre in 2005, we have developed a full catalogue of micro instruments. Here, for example, two assemblies were manufactured for an orthopaedic instrument



Increases productivity by 20% – the new Bumotec s181.





**Yao Jinhua:** "I am very satisfied with our three Bumotec machining centres, that is why we have recently invested in the new s181 model."

produced with our second machining centre, a Bumotec s191 that was installed in our third plant in 2009. These two components are produced alternately on the same machine and are assembled to form the moving part of a clamp.

**This naturally requires a very high level of precision to be able to assemble the two parts without needing to retouch the components separately.**

Not only is the Bumotec s191 machining centre able to produce these two parts on the same machine from bar stock all by itself, but it also ensures such a high level of stability in precision that no retouch is required at the end of production.

Another example which is just as interesting, and much more recent, concerns the production of an instrument for ENT surgery produced since our Bumotec s181 centre arrived. This micro instrument is now produced in eight minutes instead of ten minutes, using the second machining station simultaneously.

#### **How would you rate your three Bumotec machines installed in your plants?**

I am very satisfied with our three Bumotec machining centres, that is why we have recently invested in the new s181 model. Their stability in terms of production is exceptional.

#### **What projects have you got in the pipeline?**

We want to continue to provide our customers with varied solutions tailored to their needs, by speeding up the launch process for new products. This will enable us to reinforce our standing as a key global supplier of medical instrumentation in China and abroad.

**Highly effective: The internal coolant supply through the tool plus external cooling shaves off seconds when working with aluminium, thus ensuring greater productivity.**



# Management Report

## Sales higher, order intake and earnings lower

With the 2019 business closing, Starrag Group confirms the expectations expressed in the Half-Year Report of July. Thus, the order intake fell short of the previous year's level, which was the second-highest in the history of the company. Nevertheless, several attractive large orders were received, in particular in Aero-space. Sales surpassed the previous year's level, which can primarily be explained by the high order intake in 2018. Earnings were also unsatisfactory in 2019, although they were better in the second half of the year than in the first thanks to a considerable reduction in restructuring costs.

## "Starrag 2021" programme designed to counter this

Accordingly, the "Starrag 2021" programme, which was launched in spring 2019, was systematically implemented and started to have an impact. The programme aims for a significant and long-term sustainable improvement in profitability and specifically consists of optimising the product portfolio, comprehensively taking advantage of potential

synergies, strengthening corporate leadership and improving project management. Some of the associated measures are in the process of being realised or have already been completed. For example, around 150 jobs were cut at the Mönchengladbach site and mechanical manufacturing was concentrated in Chemnitz, as planned. This will effect annual cost savings of CHF 8 million to CHF 10 million from 2021.

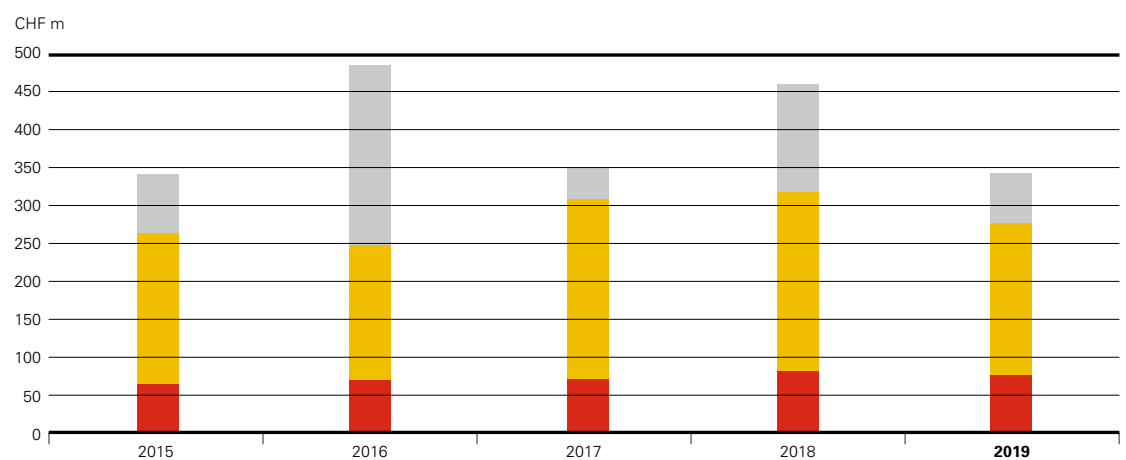
Together with the reinforced strategy of concentrating on the market segments and regions that offer the best growth and earnings potential, in particular China and the US, Starrag Group remains convinced that it can achieve its medium-term sales and earnings targets, albeit with a longer time horizon than previously assumed. Specifically, this means average sales growth of 5% and an operating margin of at least 8% across economic cycles.

## Average order

Owing to the long-term character of Starrag Group's investment activities, the order intake can be heavily influenced by individual large orders, depending on the period. This was the case in the first half of 2018, for example, in contrast to the year under review. Back then, the order intake for the year as a whole was the second-highest in Starrag Group's history at CHF 461 million. At CHF 343 million, new orders in 2019 were 26% below the level of the previous year (24% at constant exchange rates).

In terms of order size, the share of large orders was well below the previous year's level, as mentioned earlier. Medium-sized and small orders also fell compared with 2018 owing to the weaker activity in capital goods in general. Service orders remained at a high level; the slight decline can mainly be attributed to currency effects.

## Order intake by order size



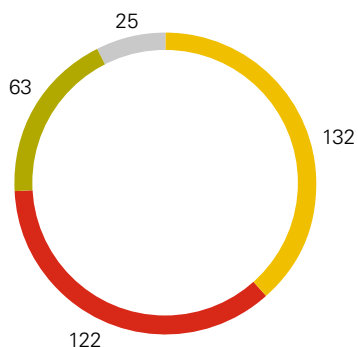
	CHF m	2015	2016	2017	2018	<b>2019</b>
Large orders (> CHF 5 million)		79	239	41	143	67
Small/medium orders		199	178	239	237	199
Recurring service		63	68	69	80	77

### Declines in most customer sectors

The decline in new orders mainly affected Aerospace and Industrial, the two most important customer sectors, and to a similar extent. In the case of Aerospace, however, it should be remembered that the previous year was influenced by several large orders. The fall in the order intake in Transportation and Energy was on a smaller scale. As in the previous year, the two dominant sectors – Aerospace and Industrial – together accounted for nearly three-quarters of new orders.

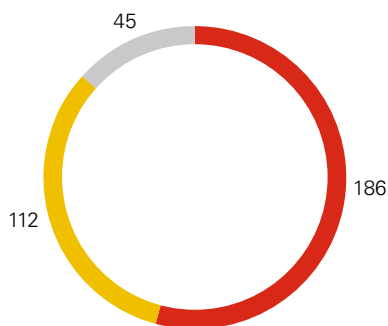
Irrespective of the lower order intake as a whole, Starrag Group again received several attractive large orders in 2019, for example one in Industrial from an Australian customer for a large machining centre in Droop+Rein’s overhead gantry design. Added to these were large orders in Aerospace from both Asia and North America for systems for machining structural components.

### Order intake by market segment



	CHF m	2019		2018	
Industrial		132	38%	176	38%
Aerospace		122	36%	171	37%
Transportation		63	19%	76	17%
Energy		25	7%	38	8%

### Order intake by region



	CHF m	2019		2018	
Europe		186	54%	272	59%
Asia		112	33%	120	26%
Americas		45	13%	69	15%

### Regional variation in developments

The picture differs from one geographic market region to another. Europe was the region most affected by the decline in the order intake – especially Western Europe – followed by North America, although it was considerably smaller there. In Asia, the level was almost unchanged from the previous year. Europe remained the most significant market region, accounting for 54% of total incoming orders.

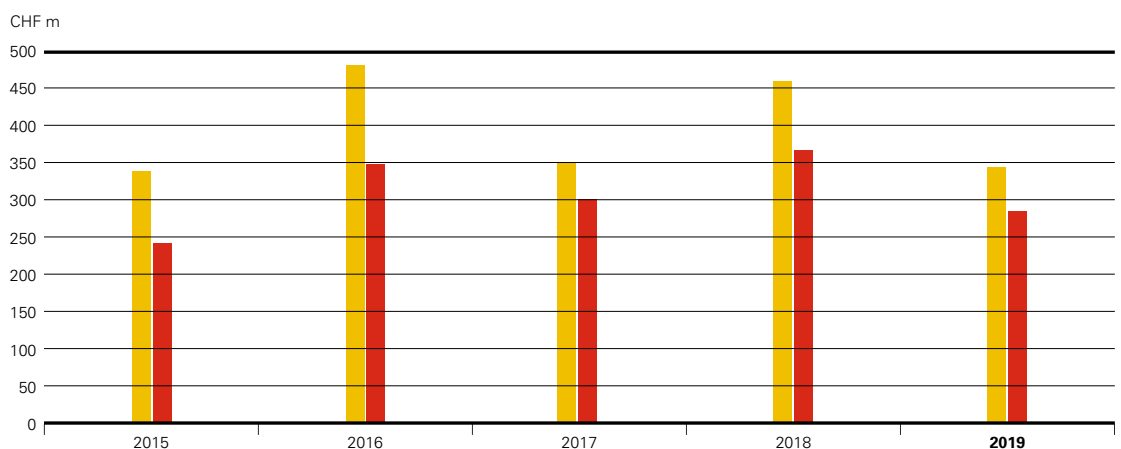
### Solid order backlog

The order backlog of CHF 284 million as of the end of 2019 corresponds to a longer-term average. The decline of 22% must be put into perspective in view of the historical record of CHF 366 million in the previous year. The current work in hand also continues to ensure a solid basic workload. It is also important to note that this is always linked to a substantial recurring service business.

### Increase in sales

Annual sales of CHF 418 million in 2019 surpassed the previous year's level by 7% (9% at constant exchange rates), which was in line with the forecast. The increase can primarily be explained by the high order intake in 2018, but can also be put down to the fact that the delays in order processing were partly offset in the reporting year by various measures that were taken to improve project management.

## Trend of order intake and order backlog



	CHF m	2015	2016	2017	2018	2019
Order intake		333	480	349	461	343
Order backlog		238	348	302	366	284



### EBIT margin lower

The operating result before restructuring costs EBITR amounted to CHF 14.0 million, or 3.4% of sales. After restructuring costs of CHF 9.2 million, EBIT was CHF 4.8 million, or a disappointing 1.1%. After standing at CHF 0.9 million as recently as the first half of the year, EBIT improved substantially in the second semester thanks not least to a considerable reduction in restructuring costs.

As a result of the fall in EBIT, there was also a fall in net income to CHF 6.9 million (CHF 2.02 per share). The decline in EBIT was partly offset by the reversal of tax provisions owing to the reform of corporation tax in various cantons.

### Balance sheet still healthy

Thanks to lower liabilities, the solid equity ratio of 53% exceeded the previous year's level by around 5 percentage points, meaning that it was in the range of the past few years.

The decrease in free cash flow to CHF 8.3 million (from CHF 19.7 million in the previous year) can be explained by the lower cash flow from operating activities. Net debt, which had already been cut to CHF 5.3 million in 2018, turned into net cash of CHF 0.6 million in 2019.

Investment in fixed assets went down from CHF 7.3 million in 2018 to CHF 5.1 million, having reached over CHF 10 million in previous years when it was boosted by the construction of the new manufacturing plant in Vuadens, Switzerland. The majority went on expanding and modernising machinery and production equipment, developing new technologies and products, and upgrading IT systems.

Starrag Group's average headcount in 2019 was practically unchanged at 1,514 employees (full-time equivalents), as well as 145 apprentices and students (compared with 151 in the previous year).

### New products

In the year under review, Berthiez, in cooperation with a Chinese customer, developed RVU 4700/450, a new grinding machine. Its hydrostatic table bearing allows it to machine workpieces weighing up to 12 tons with a diameter up to 4.5 metres and, despite this dimension, ensure a radial and axial runout in the area of 4 to 5 micrometres. The customer, a large manufacturer of multi-megawatt wind turbines, will put the machine into operation in the course of 2021 (see page 22).

With the NB 151, Starrag completed the series of these 5-axis machining centres for complex blisk machining in turbine construction with a model whose productivity is 20% higher. Thanks, not least, to this advantage, the innovations presented at the Turbine Technology Days for the first time in 2019, attracted great interest among those attending, especially as both the aerospace and energy sectors are under cost pressure.

Starrag Group's new ServicePlus concept, which was introduced two years ago, was also well received in 2019. This maintenance service plan ensures very high machine availability under multi-year agreements that are based on fixed prices (see page 18).

### Customer events and trade fairs

The "Technology Days" customer event that we have hosted at our headquarters in Rorschach since 2006, attracting well over 100 visitors each time, took place again in 2019. It is an excellent platform for presenting our latest innovations to representatives from industry, specialist media and relevant universities. In June, the Turbine Technology Days event, which has already become something of a tradition, once again took place.

As usual, Starrag Group continued to attend relevant trade shows in 2019 with an up-to-date exhibition. In April, we again attended the China International Machine Tool Show (CIMT) in Beijing, while in November we attended the China International Import

Expo (CIIE). The numerous interesting contacts made there have further strengthened the basis for future orders. Then came the EMO in Hanover in September, the most significant leading trade fair worldwide for machine tools. Here, a particular emphasis was placed on consistent customer orientation, as well as the high availability of the machines (see page 16).

### Risk management

For information about our holistic risk management process, please refer to page 71.

### Limited currency effects

We are less affected than average by currency fluctuations, compared to other Swiss industrial companies. Currently, 68% of sales originates from sites located outside Switzerland; materials are sourced from the euro area whenever possible. The share of total costs incurred in Swiss francs in 2019 stood at 21%, while in sales the share was 25%.

### Outlook for 2020

Global economic developments will again be shaped by lots of political and economic uncertainty in 2020, not least the impact of the coronavirus, which cannot yet be gauged. This makes them increasingly difficult to forecast. These external influencing factors aside, Starrag Group is optimistic about its target markets from a longer-term perspective. VDW, the German Machine Tool Builders' Association, expects output to be unchanged or to fall slightly in 2020.

In regional terms, little momentum is to be expected in Europe. In contrast, Starrag Group expects positive developments in the North American market, which the Group regards as strategically important. The arguments in favour of this are our recently expanded local sales structures, combined with an increase in staff under new overall management in the US, as well as demands from those responsible for economic policy for higher local shares of VAT. Finally, the greater Asian region continues to have great potential for growth. Economic developments in China will play a major role in this respect.

In terms of the individual sectors, in Aerospace we expect further growth in air travel in 2020. However, the problems that the two globally dominant aircraft manufacturers are currently having are reflected in the investment behaviour of our customers. In Industrial, we expect stable economic activity at the current level. Energy will probably remain at the current low level. Finally, for Transportation, it makes little sense to make a general statement because of its heterogeneous customer structure.

To summarise, with regard to the order intake, we currently expect a figure in line with that of the previous year (in local currency) or, in the best-case scenario, a small increase. This depends not least on the behaviour of those manufacturers that – unlike Starrag Group – primarily supply the automotive industry, whose demand for machine tools has been declining for some time. It can be assumed that these manufacturers will continue to attempt to switch to some of Starrag Group's sales markets, resulting in additional competitive pressure.

Sales in 2020 are likely to be significantly below the previous year's level owing to the weaker order intake in 2019. With regard to earnings, we expect EBIT before restructuring costs to be somewhat lower or unchanged compared with 2019. The measures taken in the previous year to cut fixed costs and improved project management offset negative volume effects resulting from the lower order backlog.

# Comprehensive Sustainability

The industrial and social commitment of 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.

## Results-orientated corporate culture

Economic sustainability is based on a results-orientated corporate culture and is intended to increase the value of the company 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-orientated HR policy

Starrag Group's success is essentially based on committed employees who are motivated by working in an open and modern environment and want to deliver the highest levels of performance. The central elements of our leadership culture are therefore mutual trust, respect, regular sharing of information, participation, appreciation, and promotion of personal development.

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, from design to worldwide maintenance, as a result of their vast expertise.

Periodic employee surveys conducted by *Great place to work*, an external consultancy that specialises in workplace culture assessment and employee surveys, suggest that we are on the right track.

These surveys convey valuable signals on ways to enhance and optimise working conditions in and around the workplace, management performance, information and communication, and training requirements. The most recent survey, conducted in 2017, was supplemented by additional questions regarding health. It again made useful suggestions as to what could potentially be improved. We are making improvements in this respect on an ongoing basis. These include measures such as workshops to improve the workload situation in the workplace, process improvements in the entire process chain, improvements in climatic and acoustic conditions in various work areas, expansion of the group-wide Starrag training catalogue and intensification of targeted information and communication. The next staff survey at group level is scheduled for 2020.

Starrag Group undertakes a variety of efforts to increase employee commitment to achieving the company's objectives. Employees and employee representatives are kept regularly informed at all sites about the current state of business, as well as current topics and projects. The information is conveyed by their managers, the site managers and, at least once a year, by the CEO personally at staff meetings. Furthermore, the customer magazine "Star", which is distributed worldwide twice a year to all employees, provides further information from the various locations and markets. Active communication is also supported by means of regular newsletters for the various operating sites that provide

information on the current order situation, important development projects, personnel issues and topics of cultural interest. The high level of employee satisfaction is reflected in, among other things, a staff turnover rate that has been low for years.

We place special emphasis on maintaining our employees' expertise. As part of the formal annual employee appraisal, further training needs are also assessed. The courses provided by our Starrag Training Centre are particularly valuable in supporting managers in the planning and realisation of professional development measures for their staff. In recent years, numerous training courses at different production sites have been combined and made available in the form of a training catalogue. Besides technical training such as control technology and maintenance courses for our machining centres, courses offered include language and software training. In addition, we invest substantially in the training of sales staff and focussed on strengthening the training of skilled workers. Among other things, we focussed on actively shaping the succession of departing skilled workers to their future careers and further improving practical in-house training.

Further training on the job is likewise crucial, since the necessary skills and knowledge can only be acquired during day-to-day business, in which questions keep coming up concerning issues that cannot be taught in the classroom. Our own vocational training programme plays a key role in acquiring qualified specialists. In 2019, we trained 145 apprentices and students in more than ten professions (compared with 151 in the previous year). All of our production locations feature modern vocational training centres in which our apprentices receive an educational foundation.

These training centres were further expanded in the reporting year with targeted investments in training machines and innovative course content. In order to improve the quality of the apprentices and promote interest in the apprenticeships at schools, numerous events were held at the training centres for secondary school pupils, students and potential candidates. Apprentices who complete their apprenticeship with good scores are retained if possible. In the reporting year, the Chemnitz site was again honoured by the employers' association SACHSENMETALL as one of the top training companies in the industry, while the Monchengladbach site was again honoured by the local Chamber of Industry and Commerce as one of the top training companies in the region.

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 absences through illness again remained at low levels in 2019; 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 2019. 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, as well as family events and Christmas parties, enjoyed a high level of participation.



In order to ensure the sustainability of the measures and the continuous optimisation of Human Resources processes at group level, the additional position of Head of Group HR was created in 2019.

### 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, not enough 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. Starrag Group therefore took an early decision to participate in the “Blue Competence” campaign of the European association of machine tool builders (CECIMO) and the national industry associations the German Machine Tool Builders’ Association (VDW), the Mechanical Engineering Industry Association (VDMA) and the Swiss Association of Machinery Manufacturers (Swissmem) for higher energy efficiency and sustainability in manufacturing technology, and to incorporate the relevant recommendations into the development of new products. The main driver for energy efficiency in the machining of workpieces is, however, the cycle time. Since Starrag Group’s entire machine portfolio is characterised by a higher cutting performance and, as a result, shorter production times than its competitors, investment in our machines is particularly worthwhile from the point of view of energy savings.

Under our own eeMC (energy efficient machining centre) label, the entire range of machine systems were made more energy-efficient. The measures range from energy-efficient engines and minimising base load losses through to using frequency-controlled pumps, regenerating braking energy and lightweight construction plans. In principle, 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 energy consumption of our customers considerably by lessening the need to keep the temperature stable in the production hall.

Involvement in national and international standardisation committees such as “Energy efficiency in machine tools” and the associated defining of the new ISO standard 14955 is important to 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. This opens up significant potential by reducing the amount of air conditioning in the production halls without compromising quality and functionality thanks to more precise and more intelligent production technology. 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

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 minimising 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. At 19,800 MWh, group-wide energy consumption in 2019 was below the level of the previous year (21,600 MWh) and again the lowest it has been for many years.

The ISO 50001-based certified energy management system applied 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. These efforts were continued in the year under review, for example with the replacement of existing lighting with energy-efficient LED light sources both in the production halls and in the outdoor areas and office buildings. In addition, air-conditioned measuring rooms and measuring equipment rooms were fitted with insulation in order to prevent the input of heat and thus reduce the energy requirements for air-conditioning.

The photovoltaic plant which has a surface of 8,250 m<sup>2</sup> and was commissioned at the new production site in Vuadens in 2016 produced 1,403 MWh of electricity in 2019 and fed it into the grid (compared with 1,230 MWh in 2018). The factory is equipped with a state-of-the-art lighting management system, with solely LED lights being used.

The approximately 100 MWh of electricity produced annually by the photovoltaic plant at the Rorschacherberg site is consumed by the company itself. We also want to contribute to electromobility. For example, employees currently have two charging stations for electric vehicles at their disposal, with more to follow. In addition, we are optimising the infrastructure of the buildings to promote cycling and providing staff with attractive shower and changing facilities. At our German sites of Bielefeld, Chemnitz and Mönchengladbach, we help employees to lease bicycles so that they can travel to and from work in a way that is environmentally-friendly and healthy.

The company's own paint shops use environmentally-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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63	Corporate structure and shareholders
66	Capital structure
68	Board of Directors
73	Executive Board
78	Compensation, shareholdings and loans
79	Shareholders' participation rights
80	Changes of control and defence measures
80	Auditors
81	Information policy

# Corporate structure and shareholders

## Management organisation

### Board of Directors

Walter Fust, Chairman  
 Michael Hauser, Vice-Chairman  
 Prof. Dr. Christian Belz  
 Dr. Erich Bohli  
 Adrian Stürm

### CEO

Dr. Christian Walti

### Sales

Dr. Christian Walti a.i.  
 (As of April 2020: Alexander Attenberger)

**Aerospace and Turbines / Industrial and Transportation / Luxury Goods and Med Tech / Regional Sales**

#### High Performance Systems

Dr. Bernhard Bringmann

#### Product ranges:

- Ecospeed
- Starrag

#### Horizontal Machining Systems

Dr. Stefan Breu

#### Product ranges:

- Heckert
- Scharmann/Ecoforce
- WMW

#### Large Parts Machining Systems

Dr. Marcus Queins

#### Product ranges:

- Berthiez
- Dörries
- Droop+Rein

#### Ultra Precision Machining Centers

Jean-Daniel Isoz

#### Product ranges:

- Bumotec
- SIP

### Customer Service

Günther Eller

### Group Operations

Dr. Stefan Breu

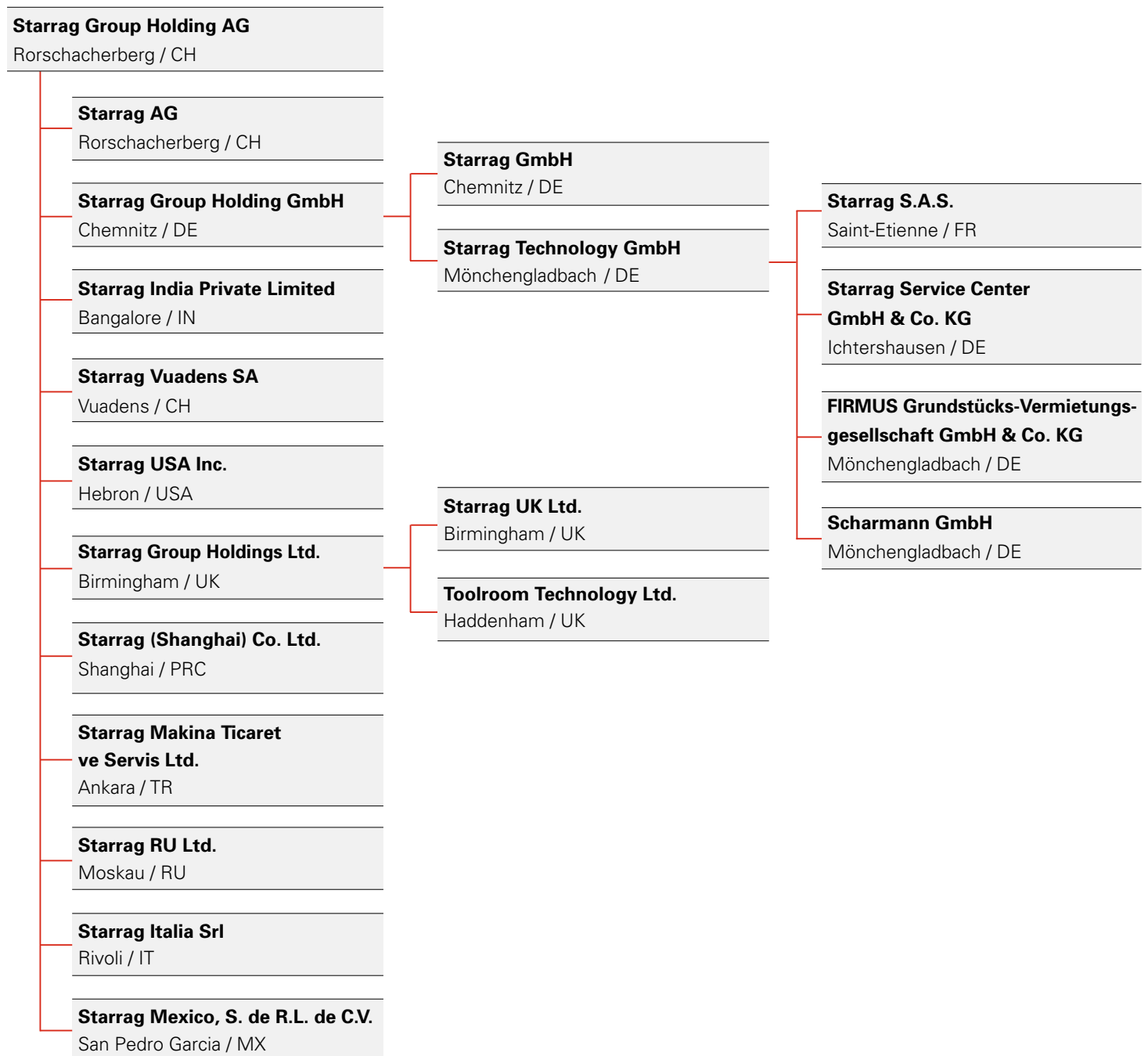
**Supply Chain Management / Strategic procurement / Manufacturing / Subassemblies**

### CFO/Corporate Center

Gerold Brüttsch



## 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 2019 was CHF 155.2 million.

## Shareholders

There were 1,003 shareholders registered in the company's share register on 31 December 2019, who held the following numbers of shares:

More than 100,000 shares	▸ 3 shareholders
10,001 to 100,000 shares	▸ 13 shareholders
1,001 to 10,000 shares	▸ 96 shareholders
1 to 1,000 shares	▸ 891 shareholders

140,960 shares or 4.2% were not registered in the share register on 31 December 2019 (cleared shares).

Significant shareholders with more than 3 percent of voting rights are known to the company as follows:

- Walter Fust, Freienbach, Switzerland  
1,854,703 shares, 55.20%
- Eduard Stürm AG, Goldach, Switzerland  
311,079 shares, 9.26%
- Max Rössler, Hergiswil/Parmino Holding AG,  
Goldach, Switzerland, 268,200 shares, 7.98%

No disclosure notifications were made during the 2019 financial year in accordance with Art. 20 of the Swiss Federal Act on Stock Exchanges and Securities Trading.

In earlier financial years, 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 agreements between shareholders.

## Cross-Shareholdings

There are no cross-shareholdings.

# Capital Structure

## Ordinary 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.

## Authorised Share Capital

There is no authorised capital.

## 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 of membership are stipulated in the Swiss Code of Obligations as well as in the company's Articles of Association. 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 within the framework of the law by the General Meeting and can be carried out in proportion to the equity investment. The company's Articles of Association are published on [www.starrag.com](http://www.starrag.com) (click on Articles of Association under Investors) and can be obtained 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 Registration

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

- if the purchaser does not, at the company's request, explicitly confirm that they have acquired and are holding the shares on their own behalf, in their own interests and for their own account;
- if and as long as the recognition of the purchaser may, based on the available information, prevent the company from complying with Swiss law requiring proof of Swiss control of the company.

Nominees who are subject to recognised banking and financial market supervision are entered in the share register with voting rights for shares they acquire on behalf of third parties without limitation. If a nominee acquires more than 3% of the outstanding share capital, they must disclose the names, addresses, nationality and shareholdings of all persons for whose account they hold 0.5% or more of the outstanding share capital prior to registration.

## Convertible Bonds and Options

There are no outstanding convertible bonds or issued option rights.



## Board of Directors

**Walter Fust** (1941, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since 1988 and Chairman since April 2019 (Chairman from 1992 until 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 had previously sold the company Dipl. Ing. Fust AG listed on the stock exchange in 1987 to Jelmoli Holding AG in 1994. Dipl. Ing. Fust AG was sold in 2007 by Jelmoli Holding AG to the Coop Group. Walter Fust has been a member of the Board of Directors of Tornos Holding AG in Moutier, Switzerland since 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 the Starrag Group and he does not have any significant business relationships with the Group.

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

From 1989 to 2018 he was a full professor of Business Administration with special consideration of Marketing at the University of St. Gallen. From 1992 to 2018 he was Director of the Institute for Marketing at the University of St. Gallen. He has never held an executive position in the Starrag Group and he does not have any significant business relationships with the Group.

From left to right: Prof. em. Dr. Christian Belz, Adrian Stürm, Michael Hauser, Walter Fust, Dr. Erich Bohli



**Dr. Erich Bohli** (1950, Swiss) has been a member of the Board of Directors of Starrag Group Holding AG since April 2017.

After completing his degree in business management (1977) and his doctorate (1980) at the University of Zurich, Erich Bohli held various positions at Unilever (Switzerland), including Internal Auditor, General Secretary, PR Manager and Marketing Manager for several international brands. He then worked as an independent turnaround manager, a profession he pursued for the next 15 years. During this time, he managed various companies, some of which were international, in a variety of fields including computer training/direct sales, branded consumer goods, OTC pharmaceuticals, multimedia and e-commerce development. From 1999 to 2010, he served as CEO of Dipl. Ing. Fust AG and also served on the Boards of Directors of AEG (Switzerland) AG, Swiss Dairy Food AG and Service 7000 AG. Since then, he has been working in the area of business development and as an Internet entrepreneur. From 2010 to 2014, Erich Bohli also graduated with a third degree in cultural and literary studies at the University of Zurich, which he completed in 2014 with a Master of Arts in Social Science.

**Michael Hauser** (1961, Swiss and German) has been a member of the Board of Directors of Starrag Group Holding AG since 2018 and its Vice-Chairman since May 2019.

Since 2011 he has been CEO of Tornos SA, based in Moutier, Switzerland and is also a member of the Board of Directors of Schlatter Industries AG, based in Schlieren, Switzerland. From 2008 to 2010, he was a member of the Executive Board of Georg Fischer AG and headed its division GF Agie Charmilles. From 2000 to 2008, he was a member of the Executive Board of the Agie Charmilles Group where he was responsible for the Milling Division. From 1996 to 2000 he was Chairman of the Milling Division of the Mikron

Technology Group based in Biel, Switzerland. He also serves at the European Association of the Machine Tool Industries CECIMO as Delegate (2015 – present), as Board Member (2012–2017) and Chairman (2009–2010). He is a member of the Board of Directors of the Swiss Association of Mechanical, Metal and Electrical Engineering Industries SWISSMEM, where he has headed the Machine Tools division since 2005. Michael Hauser holds a degree in business administration from the University of Mannheim. He has never held an executive management position with the 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.

Since 2001, he has been active in Controlling, Operational Risk Control and Risk Management at UBS Switzerland AG, and in the areas of Operational Risk Control and UBS WM Controlling since 2008 at UBS WM Investment Platforms & Solutions. Prior to that he was an auditor with KPMG Zurich and London from 1997 to 2000. He is Chairman 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. He is also a member of the Board of Directors at Holz Michel AG, Hasle, 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 the 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 not hold more than ten mandates in other companies. Of these, a maximum of five mandates may be held in companies listed on the stock exchange. 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; and
3. Mandates in associations, charitable foundations, staff welfare foundations and associations; no member of the Board of Directors or the Executive Board may hold more than six such mandates.

Mandates are defined as 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.

## Election and Term of Office

The members of the Board of Directors, the Chairman of the Board of the Directors, the members of the Compensation Committee and the independent proxies are elected annually at the Annual General Meeting of the Shareholders. There are no restrictions on terms of office.

## Internal Organisation

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, callings for meetings are to be sent out five days before 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 minute-taker. The minute-taker will be designated by the Board of Directors. They do not need to 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 to determine the execution of a capital increase and to resolve 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 tied 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 members request a verbal discussion of the item in question. These 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. In the financial year 2019, eight meetings of the Board of Directors took place, with an average duration of five hours (two of which were held as a telephone conference). All members of the Board of Directors attended all meetings.

The tasks and responsibilities of the Compensation Committee are presented in the Compensation Report (page 82). The Board of Directors has not established any other committees. At our mid-sized company, the respective tasks are performed by the Board of Directors as a whole. Moreover, the Executive Board regularly consults with the Chairman of the Board of Directors and individual members 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. The Board of Directors has delegated most of the executive management powers to the CEO. However, the Board of Directors remains responsible for tasks that legally cannot be delegated and other important business. These include in particular matters such as business strategy, approval of the annual 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 (incoming orders, sales revenues, margins, profits, investments, liquidity, capital commitment);
- regular information about market and business developments as well as important projects;
- detailed information about market and business developments at every Board meeting, which are partially 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 Starrag Technology GmbH and Walter Fust as a member of the Board of Directors of Starrag Vuadens SA.

## 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 as well as 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 as well as other innovation-based activities could prevent business potential from being realised,
- a lack of availability of financial resources could impair the performance and operations of the Starrag Group and
- natural events (such as fires) could impair operating activities.

the Board of Directors and the Executive Board 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 the Executive Board and the Board of Directors.

The following goals are 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 instructions as well as a risk log, in which operational data as well as action planning for risk management are documented.



The Executive Board has appointed an officer to implement and moderate risk management, who reports directly to the CFO, as well as a responsible member of the Executive Board for each risk area.

In the annual risk review, the risks are carefully identified, analysed and evaluated, and appropriate measures are defined to reduce the risks. This information is documented in a comprehensive group-wide risk matrix. The implementation of the measures is monitored by the risk management officer. In business processes with recurring risks, the resolved measures are integrated as process steps in the operative processes of the daily business.

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

Additional information on financial risk management can be found on page 103.

## 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 corresponding simplifications for small and medium 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 powers and responsibilities in organisational guidelines and an accompanying functional chart.

From left to right: Dr. Marcus Queins, Dr. Stefan Breu, Gerold Brüttsch, Dr. Christina Walti, Dr. Bernhard Bringmann, Jean-Daniel Isoz, Günther Eller





**Dr. Christian Walti** (1967, Swiss) has been CEO of the Starrag Group since June 2018 CEO and interim Head of Sales since July 2019 (up to June 2019 Head of Regional Sales).

From 2012 to 2018 he was the Managing Director of Bosch Packaging Systems in Beringen, Switzerland. He was additionally responsible for the Horizontal Packaging Systems Food from 2017, a unit with five international production sites. From 2005 to 2011, as a shareholder and member of the Board of Directors of Faes Finanz AG (Holding), he held the position of delegate of the Board of Directors and CEO of Faes AG in Wollerau, Switzerland. He previously worked for Capgemini Consulting AG and ABB Switzerland AG.

Christian Walti completed his studies in Business Administration at the University of St. Gallen (HSG) with a doctorate.



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

Gerold Brüttsch previously served as Chief Financial Officer of the international machine manufacturing company Müller Martini Buchbinde-Systeme AG 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 as a Business Economist (FH) in 1990. He is a graduate auditor and U.S. Certified Public Accountant.



**Alexander Attenberger** (1977, German) will be responsible for the Sales division of the Starrag Group from 1 April 2020.

He previously worked for the German Grob Group since 2013, first as a Head of Department and then as Division Manager of Sales of universal machines. From 2010 to 2012, he was the Executive Vice President of Sales Industrial Equipment at MAG IAS. Between 2007 and 2010, he worked for Deckel Maho Pfronten, first as the Head of Back Office Sales, then as Sales Director for horizontal machining centres. From 2003 to 2007, he was the Product Sales Manager Milling at DMG München Vertriebs und Service GmbH.

Alexander Attenberger is a Precision Engineering Master and an HWK (Chamber of Crafts) Business Economist.



**Dr. Stefan Breu** (1964, Swiss) has been Director of Group Operations of the Starrag Group and interim Head of the business unit Horizontal Machining Systems (product areas Heckert, Scharmann, WMW) since July 2019.

He previously held various management positions at Bosch Packaging Systems, Beringen/Switzerland (previously SIG Division SIGpack), most recently as General Manager, between 2017 and 2019. From 2015 to 2016 he was employed as COO of the Schleuniger Group and between 2008 and 2014 Head of Global Production and Supply Chain of the SIG Combibloc Group. Further stages in his career included management positions at SIKA in China and ATEL, most recently as Director of group-wide operations and member of the Executive Board.

Stefan Breu completed his studies as an MSc. Engineer at the ETH Zurich and as a Dr. of Economics (Dr. oec. HSG) at the University of St. Gallen. He also graduated from an International Executive Program at INSEAD Fontainebleau and the Stanford Executive Program at Stanford University, USA.





**Dr. Bernhard Bringmann** (1977, Swiss and German) has been Head of the business unit High Performance Systems (product areas Starrag, Ecospeed, TTL) since July 2019.

From 2015, he was previously Head of the Starrag plant in Rorschach as part of the former business unit Aerospace & Energy in Rorschach and bore overall responsibility for the market segments Aero Engine and Power Turbine as well as central functions in the segment Aero Structure. In 2014, he was Head of the former business unit 1 and thus responsible for the brands Starrag and the technology subsidiary TTL, UK. Bernhard Bringmann has previously held various management positions in the areas of Development, Innovation and Technology since joining Starrag in 2008.

Bernhard Bringmann holds a Dr. of Science (Dr. Sc.) from the ETH Zurich and has a Master of Science in Mechanical Engineering from the Rensselaer Polytechnic Institute in Troy/USA.



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

From 1986, he previously held various management positions at OC Oerlikon in Sales and Customer Service, 2001 to 2006 as Head of the business unit Customer Service in the Data Storage Division, 1995 to 2001 as Managing Director of a sales and service company for the investment business and prior to this various management positions in the areas of Sales and Key Account Management.

Gunther Eller holds an M.Sc. in Engineering Physics.



**Jean-Daniel Isoz** (1959, Swiss) has been Head of the business unit Precision Machining Centres (product areas Bumotec, SIP) since July 2019.

From 2015, he was previously Head of the former business unit Precision Engineering with overall responsibility for the market segments Luxury Goods, Micromechanics and Med Tech. Prior to this, he was responsible for the former business unit 4 (Bumotec, SIP) from 2013. He was previously Sales Manager between 2000 and 2002 and from 2006 Managing Director of SIP. Further stages included various management positions at Bobst SA and Bula Machines SA.

Mr. Isoz holds a M.Sc. HTL in Electrical Engineering and completed additional training programmes in Finance and Marketing at INSEAD, France.



**Dr. Marcus Queins** (1969, German) has been Head of the business unit Large Parts Machining Systems (product areas Berthiez, Dörries, Droop+Rein) since July 2019.

Since 2005, he has been working for Starrag in Mönchengladbach, since 2008 in the role of Head of Technology (product areas Dörries, Scharmann, Ecospeed, Droop+Rein). He was previously employed at the Laboratory for Machine Tools and Business Administration at the RWTH Aachen as an academic assistant, where he was most recently responsible between 2003 and 2005 for the research area of Mechanical Engineering.

Marcus Queins completed his Mechanical Engineering studies at the RWTH Aachen in In-Depth Construction Technology as a Doctor of Engineering Sciences (Dr.-Ing.).

### Maximum Number of Permissible Mandates

The members of the Executive Board may not hold more than three mandates in other 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 may hold more than ten such mandates; and
3. Mandates in associations, charitable foundations, staff welfare foundations and associations; no member of the Board of Directors or the Executive Board may hold more than six such mandates.

Mandates are defined as 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 Starrag Group by members of the Executive Board requires prior approval by the Board of Directors.

### Management Contracts

There are no management contracts with companies outside the Starrag Group.

## Compensation, Shareholdings And Loans

Information on compensation and loans are specified in the Compensation Report (page 85) and information regarding participation can be found in the Notes to the Financial Statement (page 124).

# Shareholders' Participation Rights

Shareholders of Swiss stock corporations have extensive participation and protective rights. The protective rights include the right to inspection and information, the right to 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.

The participation rights include, in particular, the right to participate in General Meetings, the right to express opinions and the right to vote.

## 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 at the General Meeting by another shareholder who is authorised to do so in writing, by their legal representative or by the independent voting representative.

The Board of Directors determines the requirements for proxy and the instructions given to the independent voting representative.

## Statutory Quorum

There is no statutory quorum.

## Convening of the Annual General Meeting

There are no statutory regulations regarding the convening of 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.

## Additions to the 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 at least 1% of the share capital can request the addition to the agenda of an item to be discussed. 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.

## Registrations 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. With respect to the company, shareholders and beneficiaries are only recognised 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 may request from the applicant all information necessary for the assessment of the registration request that appears to be relevant to the request. 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 the acquirer does not, at the company's request, explicitly confirm that they have acquired and are holding the shares on their own behalf, in their own interests and for their own account;
- if and as long as the recognition 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.



Acquirers who are not yet recognised by the company are to be registered in the share register as shareholders without voting rights after the transfer of 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 registrations in the share register if these have resulted from invalid information by the acquirer. The acquirer has to be informed immediately of this deletion.

The key date for the registration of registered shareholders in the share register with regard to attendance of the General Meeting will be set on a date shortly before expiry of the statutory period on the convention of the General Meeting.

## Changes in Control and Defence Measures

### Obligation to Make an Offer

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

### Clauses on Changes in Control

There are no clauses on changes in control.

## Auditors

### Duration of the Mandate and Term of Office of the Auditor in Charge

PricewaterhouseCoopers AG, St. Gallen, has been the statutory and consolidated financial statement auditor since 1981. They are 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 2020. The auditor in charge, Oliver Kuntze, was first assigned the auditing mandate with the auditing of the 2019 financial statement. The rotation rhythm of the leading auditor corresponds to the maximum duration of seven years legally applicable for Swiss companies.

### Audit Fees

Audit fees paid to PricewaterhouseCoopers AG during the 2019 financial year and charged to the consolidated financial statement amounted to CHF 269,000.

### Additional Fees

No additional fees were paid to PricewaterhouseCoopers AG in the financial year 2019.

### 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 audit and the results of the audit. The auditors report significant findings directly to the Board of Directors. In the reporting year, the auditor in charge attended two meetings of the Board of Directors. At these meetings, the audit plan, scope, and results of the audit, as well as other important aspects 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 Annual and Half-Year 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 ad hoc publicity guidelines of the listing regulations of the SIX Swiss stock exchange. Any interested party can register at [www.starrag.com](http://www.starrag.com) (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 ([www.starrag.com](http://www.starrag.com), click on Media releases under Investors) and can be provided to any interested parties upon request.

## Important Data:

- **25/04/2020**  
Annual General Meeting in Rorschach
- **23/07/2020**  
Half-Year Report 2020

- **29/01/2021**  
Sales and order situation 2020
- **05/03/2021**  
Annual Report 2020, Analysts and Media Conference in Zurich
- **23/04/2021**  
Annual General Meeting in Rorschach

The information mentioned will be published on our website [www.starrag.com](http://www.starrag.com) as far as 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:

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# Compensation Report

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83	Introduction
83	Compensation Policy and Principles
83	Responsibilities in Determining Compensation
85	Compensation Elements
86	Compensation
87	Notes Regarding Compensation
87	Loans and Credits
88	Report of the Statutory Auditor

# 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 “Remunerations” 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 management with the aim of guaranteeing that management compensation is in line with market conditions and thus ensuring that qualified executives can be recruited and remain with the company in the long-term. Compensation policy also promotes entrepreneurial thinking and approaches and aligns the interests of executive bodies with those of the shareholders.

The compensation of the members of the Board of Directors and the Executive Board is determined on the basis of individual tasks and performance, the course of business of the company, market conditions in the respective global sales and local labour market as well as salary comparisons with regard to the function, business activity, size and internationality of employers with similar positions. These criteria are applied individually for each member of the Executive Board at their due discretion.

## Responsibilities in Determining Compensation

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

### General Meeting

The General Meeting has the non-transferable power to:

- elect and dismiss members of the Compensation Committee;
- approve the compensation of the Board of Directors and the Executive Board
- determine the statutory 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 and the maximum total compensation of the Executive Board for the financial year following the General Meeting.

In addition, the General Meeting approves the Compensation Report retrospectively in a non-binding consultative vote.

### **Board of Directors**

Subject to the powers of the General Meeting, the Board of Directors is responsible, at the request of the Compensation Committee, for determining the compensation that is to be paid to the members of the Board of Directors and the members of the Executive Board. In particular, at the request 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 for the members of the Board of Directors for special tasks and bonuses for extra services within the framework of the total compensation approved by the General Meeting;
- determining variable profit-sharing plans for 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;
- preparing the Compensation Report.

### **Compensation Committee**

The Compensation Committee shall have the following tasks and responsibilities (fundamental principles):

- drafting and periodic review of the compensation policy and principles of the Starrag Group and periodic review of the implementation thereof, and submission of proposals and recommendations to the Board of Directors;

- preparing 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 submitting 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 preparing a proposal for the maximum total amount of compensation.

During the 2019 financial year, the Compensation Committee held two meetings at which all members were present as well as numerous informal consultations in the fulfilment of its statutory duties. In the previous year, the Compensation Committee developed and introduced a new system for the variable salary component of the Executive Board members valid for the period from 2018 to 2020, with the aim of focusing even more consistently on growth and increasing the profitability of the units and the Group.

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. The Board of Directors and the Compensation Committee performed their duties during the past year without the involvement of external consultants.



## Compensation Elements

### Board of Directors

The members of the Board of Directors each receive fixed compensation and variable profit-based compensation. The Board of Directors may grant additional compensation to individual members for extra duties (serving on committees, etc.).

In the financial years 2018 to 2020, the net profit is the basis of assessment for variable profit-sharing compensation for the members of the Board of Directors, reduced by an advance interest on equity capital depending on the development of interest rates. The amount of the advance interest and the shares of the individual members of the Board of Directors in the basis of assessment as well as the other details (payout terms and date, any limitation on the variable profit sharing, etc.) are determined by the Board of Directors. If net profit falls below the defined amount of advance interest, no variable profit-sharing compensation will be paid. Variable profit-sharing compensation for the members of the Board of Directors is capped at CHF 125,000 per member.

The fixed compensation is paid monthly in cash. The variable profit-sharing compensation is paid annually in cash after the consolidated financial statement has been approved by the General Meeting. The company does not have any share participation plans.

The members of the Board of Directors are not insured through pension plans or comparable schemes of the company or Group companies. Members of the Board of Directors are not entitled to severance pay or other benefits upon separation of service.

### Executive Board

The members of the Executive Board receive fixed compensation and variable profit-sharing compensation. The Board of Directors may resolve special bonuses for exceptional performance.

The Board of Directors determines the variable profit-sharing compensation of the Executive Board members based on individual performance metrics pertaining to the areas of operation for which they are responsible and/or to collective performance metrics pertaining to the consolidated results.

In the financial years 2018 to 2020, the basis of assessment for the variable profit-sharing compensation of members of the Executive Board was calculated on the basis of the operating result EBIT minus minimum expected results. Group operating result EBIT was one measure of performance. For the business unit managers, a second measure based on the operating result EBIT of their particular area of responsibility was applied. In the average expected result distribution, this second component accounts for around two-thirds of the total variable compensation for the heads of the business units, while the percentage of their compensation based on the Group result amounts to approximately one-third. If the operating result EBIT falls below the specified minimum threshold, no variable compensation will be paid. The variable profit-sharing compensation for the members of the Executive Board is limited to 150% of the fixed compensation.

The fixed compensation is paid monthly in cash. The variable profit-sharing compensation is paid annually in cash after the consolidated financial statement has been approved by the General Meeting. The company does not have any share participation plans. Pension benefits are only paid to members of the Executive Board within the framework of domestic and foreign pension plans and comparable plans of the company or Group companies. The benefits to insured parties and the employer's plan contributions are defined in the aforementioned plans or the corresponding plan regulations.

An additional amount of compensation as defined in Art. 19 of the OaEC equivalent to 40% of the approved total amount of compensation of the Executive Board is available for members appointed to the Executive Board after the maximum total amount is approved. Compensation may be paid by the company or the corresponding Group company for services rendered at companies that are directly or indirectly controlled by the company. Such compensation must be consolidated at Group level and included in the votes on compensation at the General Meeting.

Company loans and credits to a member of the Executive Board and any guarantees or other collateral offered to secure the obligations of an Executive Board member may not exceed three times the annual salary of the respective member of the Executive Board.

Members of the Executive Board are not entitled to severance pay or other benefits upon separation of service.

## Remuneration

CHF 1'000	2019					2018				
	Fixed	Additional services	Variable	Pension and other	Total	Fixed	Additional services	Variable	Pension and other	Total
Prof. em. Dr. Christian Belz	50	-	7	3	60	50	-	12	4	66
Dr. Erich Bohli	50	7	7	3	67	50	4	12	4	70
Prof. Dr. Frank Brinken (until 28.4.2018)	-	-	-	-	-	17	4	4	1	26
Daniel Frutig (until 26.4.2019, Chairman)	37	-	2	3	42	110	60	12	13	195
Walter Fust (Chairman from 26.4.2019, previously member)	70	29	7	4	110	50	63	12	6	131
Michael Hauser (from 28.4.2018)	50		7	4	61	33	-	8	4	45
Adrian Stürm	50	12	7	4	73	50	13	12	5	80
<b>Total Board of Directors</b>	<b>307</b>	<b>48</b>	<b>37</b>	<b>21</b>	<b>413</b>	360	144	72	37	613
Variable as percentage of total compensation			9%					13%		
<b>Total Executive Board</b>	<b>1'703</b>	-	<b>1'445</b>	<b>429</b>	<b>3'577</b>	1'878	-	1'215	390	3'483
Variable as percentage of total compensation			46%					39%		
Thereof:										
▸ Dr. Christian Walti, CEO	387	-	477	110	974			n/a		
▸ Jean-Daniel Isoz, Head Business Unit Precision Engineering			n/a			240	-	349	83	672
Variable as percentage of total compensation			55%					59%		

Compensation is reported on a gross basis (including employee contributions to pension plans and social insurance schemes). The reported contributions to pension plans and social insurance schemes include the employer's contributions.

## Notes Regarding Compensation

Compensation for additional duties performed by members of the Board of Directors is owed in connection with the service of Walter Fust and Adrian Stürm on the Supervisory Board of Starrag Technology GmbH in Mönchengladbach, the service of Walter Fust and Prof. Dr. Frank Brinken (until 28/4/2018) on the Board of Directors of Starrag Vuadens SA and the work of the Compensation Committee. In 2018, compensation for additional services provided by members of the Board of Directors in connection with the recruitment of a new CEO also accrued. The variable compensation paid to members of the Board of Directors in 2019 was lower as net profit for the year was lower.

The fixed compensation paid to members of the Executive Board in 2019 was lower, as higher fixed compensation accrued due to the change of CEO in 2018 (Christian Walti joined on June 1, 2018 while Walter Borsch stepped down at the same time, but continued to receive compensation during the transition period up to 30 September 2018). On the other hand, there was also a slight temporary decline due to the changes implemented in the Executive Board.

The variable compensation paid to the Executive Board was higher in 2019 than in the previous year, as higher variable compensation was due as a result of considerable improved results in individual units.

All compensation was assigned to the appropriate period in accordance with the Swiss GAAP FER accounting and reporting recommendations (accrual basis).

## 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. Neither did the Starrag Group provide compensation or any loans or credit to any related parties of current or former members of the Board of Directors or the Executive Board at non-market rates or 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 2019. 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 on page 86 (table) and page 87 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.

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

**Opinion**

In our opinion, the remuneration report of Starrag Group Holding AG for the year ended 31 December 2019 complies with Swiss law and articles 14–16 of the Ordinance.

PricewaterhouseCoopers AG

A handwritten signature in black ink, appearing to be 'O.K.' with a stylized flourish.

Oliver Kuntze  
Audit expert  
Auditor in charge

A handwritten signature in black ink, appearing to be 'O.M.' with a stylized flourish.

Oscar Maier  
Audit expert

St. Gallen, 4 March 2020



# Financial Report

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## **91 Financial Commentary**

---

## **97 Consolidated Financial Statement**

97 Consolidated Income Statement

98 Consolidated Balance Sheet

99 Consolidated Cash Flow Statement

100 Consolidated Equity Statement

101 Notes to the Consolidated Financial Statement

116 Report of the Statutory Auditor on the Consolidated Financial Statement

---

## **120 Financial Statement**

120 Income Statement

121 Balance Sheet

122 Other Notes

125 Appropriation of Profits

126 Report of the Statutory Auditor on the Financial Statement

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## **130 Multi-Year Overview**

## Financial commentary

As expected, lower order intake and higher sales, while EBIT margin lower – order backlog still solid

- Order intake down 26% to CHF 343 million (down 24% at constant exchange rates)
- Sales up 8% to CHF 418 million (up 9% at constant exchange rates)
- Solid order backlog of CHF 284 million
- Operating result before restructuring costs: EBITR up 8% to CHF 14 million, EBITR margin 3.4%, EBIT margin 1.1% %
- Net income CHF 6.9 million – earnings per share CHF 2.02
- Solid balance sheet with 53% equity ratio
- Profit distribution of CHF 1.00 CHF per share, payout ratio of 49% – i.e. at the upper end of the targeted range
- Initial effects of “Starrag 2021” programme can be seen

CHF m	<b>2019</b>	2018	Change
Order intake	343.2	461.0	-25.6%
Order backlog end of the year	284.3	365.9	-22.3%
Sales revenue	418.1	388.8	7.6%
Operating result EBIT	4.8	11.1	-56.8%
Net income	6.9	8.4	-18.2%
EBIT as percentage of sales revenue	1.1%	2.9%	n/a
Cash flow from operating activities	10.5	26.9	-61.0%
Capital expenditure in non-current assets	5.1	7.1	-30.8%
Free cash flow	8.3	19.7	-57.7%
Employees (full-time equivalents, annual average)	1'514	1'516	-0.1%
Total assets	334.6	369.7	-9.5%
Net cash	0.6	-5.3	-112.1%
Shareholders' equity	178.1	176.6	0.8%
Equity ratio	53.2%	47.8%	n/a
Return on equity ROE	3.9%	4.7%	n/a
Earnings per share (in CHF)	2.02	2.49	-18.7%
Profit distribution per share (in CHF)	1.00 <sup>1)</sup>	1.00	0.0%

<sup>1)</sup> In the form of a reduction in nominal value free of withholding tax from CHF 8.50 to CHF 7.50 (proposal of the Board of Directors to the Annual General Meeting).

The Starrag Group closed the 2019 financial year with a net profit of CHF 6.9 million. As a result of restructuring costs in conjunction with the “Starrag 2021” programme, this was considerably lower than the previous year. The EBIT margin was an unsatisfactory 1.1% of sales revenue (previous year 2.9%). The operating result before restructuring costs EBITR increased by 7.6% to CHF 14 million (previous year CHF 13 million). At CHF 343 million, incoming orders were down 26% on the previous year’s second highest level in the history of the company. The orders on hand of CHF 284 million were within the long-term average, which ensures a solid workload.

The Board of Directors will propose a dividend distribution of CHF 1.00 per share at the Annual General Meeting on 25 April 2020, in the form of a withholding tax-free reduction of the nominal value of the share. This corresponds to a payout ratio of 49% of the net income and a dividend yield of 2.2%.

### Increase in Sales

At CHF 418 million, sales revenue was 7.6% (+9.2% adjusted for currency effects) above the previous year (CHF 389 million). The increase can primarily be explained by the high order intake in 2018, but can also be put down to the fact that in the reporting year, it was possible to partly offset the delays in order processing in the previous year thanks to various measures that were taken to improve project management.

### Incoming Orders Considerably Lower Than Record-High Previous Year

Incoming orders developed regressively, as expected, after the second-highest order intake in the history of the Starrag Group in the previous

year. The decline compared with the previous year was 26% (-24% adjusted for currency effects) and led to an order intake of CHF 343 million for the year as a whole.

The decline mainly concerned the customer industries Aerospace and Industrial as well as the areas of Transportation and Energy to a lesser extent. Viewed by geographic market region, the incoming orders declined particularly in Europe, followed by North America, while Asia was only marginally weaker. The recurring service portion of incoming orders was almost unchanged at CHF 77 million, adjusted for currency effects (previous year CHF 80 million). Due to weakened investment activity, the share of the stable business with medium and small shares (< CHF 5 million) declined to CHF 199 million (previous year CHF 237 million), while the major contracts (> CHF 5 million) fluctuated more heavily as expected at CHF 67 million (previous year CHF 143 million).

The order situation is thus characterised by a normalised order backlog of CHF 284 million, which corresponds to a long-term average. The decline of 22% must be put into perspective in view of the historical record of CHF 366 million in the previous year. The current work in hand also continues to ensure a solid basic workload. It is also important to note that the Starrag Group additionally operates a substantial recurring service business. The book-to-bill ratio (incoming orders to sales) was 0.82 (previous year 1.19).

## Increase in the Operating Result Before Restructuring Costs

Gross profit (sales revenue minus cost of materials plus/minus change in inventory) amounted to CHF 226 million and was CHF 2 million or 0.8% higher than the prior-year figure of CHF 224 million.

At 54.1%, the gross profit margin was considerably lower than the previous year's margin of 57.7% (-3.6%). This decline can be explained in particular by more system solutions with an above-average external procurement share and the associated higher share of material. In addition, the consumption of unfinished and finished products manufactured in the previous year of CHF 7.1 million also reduced the gross profit margin.

The gross profit margin was also positively impacted by a higher average percentage of completion of the processed orders and the associated lower share of material. Negative factors were the selective reassessment of some projects due to higher than expected costs, lower margins stemming from a shift in the product mix and the increased cost of certain materials.

Personnel expenses amounted to CHF 155 million, an increase of CHF 8.5 million or 5.8% from the previous year. Of this increase, CHF 6.5 million can be attributed to restructuring costs in conjunction with the programme "Starrag 2021". Currency conversion differences resulted in a reduction in personnel expense by CHF 3.4 million, leaving a currency-adjusted increase (before restructuring costs) of CHF 5.4 million or 3.7%. This increase can be attributed to the increased capacity utilisation as well as additional costs due to increased unit labour costs of CHF 2.6 million, in particular in Germany and in the emerging countries. Operating expenses amounted to CHF 55 million and were thus 0.2% above the previous year, adjusted

for currency effects. Due to the higher sales volume, its share reduced from 14.5 to 13.1 percentage of sales. Depreciation and amortisation were slightly higher at CHF 12 million (previous year: CHF 11.1 million).

Accordingly, the operating result before depreciation and restructuring costs EBITDAR increased from CHF 24.1 million to CHF 26.1 million, corresponding to 6.2 percentage of sales. After taking depreciation into account, the operating result before restructuring costs EBITR increased from CHF 13 to 14 million (3.4 percentage of sales).

## Restructuring Costs Affect the Financial Result

The reduction of 150 jobs announced in April 2019 at the Mönchengladbach location was implemented as planned. For restructuring costs in conjunction with the "Programme 2021", the financial year 2019 was debited CHF 9.2 million. Of this, CHF 8.5 million was recorded as personnel expenses, while CHF 0.3 million was debited for impairments to cost of materials and to depreciations, as well as a further CHF 0.2 million to other operating expenses.

Operating earnings before interest and taxes (EBIT) declined as a result by CHF 6.3 million to CHF 4.8 million (previous year: CHF 11.1 million).

### Investments in Development at a High Level

Expenditure for development remained at a high level. During the year under review, CHF 29.7 million or 7.1% of sales revenue was spent on developing innovative products and processes as well as on customer-specific further development. After consideration of capitalisation and depreciation of R&D projects, a net amount of CHF 32.5 million (7.8% of sales) was debited to the income statement (net CHF 29.3 million or 7.5% of sales in the previous year).

### One-Time Positive Tax Effect Relieves Net Profit

The financial result developed positively at CHF -1.0 million (previous year: CHF -2.2 million). Currency gains due to the stronger Dollar on average over the year of CHF 0.7 million contributed to this, whereas in the previous year a currency loss of CHF -0.3 million occurred.

Overall, income from taxes on earnings of CHF 3 million was recorded. The corporate tax reforms in various Swiss cantons resolved in 2019 had a positive effect. This resulted in the release of tax provisions according to the Swiss Accounting Standard GAAP FER, which led to a one-off relief on income tax expense of CHF 2.6 million. In addition, income tax expense was positively impacted by higher profit shares in countries with lower tax rates.

As a result, net profit dropped from CHF 8.4 to 6.9 million. The earnings per share dropped accordingly from CHF 2.49 to CHF 2.02. The resulting return on equity was 3.9% (4.7% in the previous year).

### Balance Sheet Still Sound

On 31 December 2019, the balance sheet total was lower by 9.5% than the previous year (CHF 370 million) due to a lower capital employed and a decline in cash with simultaneous reduction in financial liabilities. This significant decline corresponds to a normalisation, after the balance sheet total rose considerably in the previous year due to short-term incoming payments before the end of the year.

The capital employed through construction contracts in progress increased from CHF 38 million to CHF 42 million, whereby CHF 79 million was shown under receivables (previous year: CHF 87 million) and CHF 37 million under liabilities (previous year: CHF 49 million). The capital commitment consists of order costs and recognized profits of CHF 290 million (previous year: CHF 312 million), less advance payments received in the amount of CHF 248 million (previous year: CHF 274 million). The level of financing of construction contracts in progress thus declined slightly from 88% to 85%.

Current assets reduced by 8.7% to CHF 241 million in the reporting period (previous year: CHF 264 million). As a result of the repayment of financial liabilities, cash was reduced by CHF 17 million, while the receivables declined by CHF 11 million. These continue to show a healthy maturity structure. Fixed assets declined to CHF 93 million (previous year: CHF 105 million).



Investments in fixed assets amounted to CHF 5.1 million (previous year: CHF 7.3 million) and were more than compensated for by divestitures of CHF 3 million as well as depreciation of CHF 12 million (previous year: CHF 11 million).

Liabilities reduced by 19% to CHF 156 million (previous year: CHF 193 million). This decrease can be particularly attributed to the reduction in financial liabilities by CHF 23 million. The operating liabilities from goods and services also declined by CHF 7 million.

Shareholders' equity was virtually unchanged at CHF 178 million. The increase of CHF 6.9 million from net profit was compensated by the dividend payout of CHF 3.4 million and exchange-rate differences of CHF 2 million due to the weaker Euro at the balance sheet date. The equity ratio at the end of the reporting year remained solid at 53% (previous year: 48%).

### Intact Free Cash Flow

The operating cash flow declined from CHF 26.9 million to CHF 10.5 million. This significant decline resulted in particular from a slight increase on the reporting date of the non-financial net working capital by CHF 2.1 million, after this was reduced substantially in the previous year by CHF 7.5 million.

Cash outflow from investment activities of CHF 2.1 million was clearly lower than in the previous year (CHF 7.1 million) due to cautious investment activity and also less than depreciation of CHF 12 million. Investments in fixed assets include CHF 0.6 million for investments, primarily for selective improvements of existing manufacturing buildings.

An additional CHF 2.6 million was invested in the expansion and modernisation of machinery and production equipment at the manufacturing plants and the development of new technologies and products. CHF 1.1 million was spent on upgrading IT systems to improve integration within the Starrag Group's global network, for example, and to provide further IT support for business processes. CHF 3 million flowed in from divestitures, primarily for the sale of the remaining part of the former production plant in Sâles/Switzerland.

Due to the lower cash flow from operating activities, the free cash flow dropped to CHF 8.3 million (previous year CHF 19.7 million).

CHF 25.8 million was used for financial activity. This includes a CHF 22.4 million repayment of financial liabilities and the outflow of CHF 3.4 million from capital contribution reserves for the withholding tax-exempt dividend distributed in April 2019. This corresponded to a dividend payout ratio of 40% of net income for 2018.

### Currency Effects

The Swiss Franc developed in 2019 below the average exchange rate of 2018. This led to negative currency conversion effects in the income statement and cash flow statement, due to the weakening of the Euro in comparison with the previous year. The negative effects included a negative impact of the revenue by 1.7%. The much lower year-end exchange rate led to negative currency conversion effects in the balance sheet that resulted in a reduction of shareholders' equity by CHF 2 million, amongst others effects. The annual average exchange rate for translating the income statement and cash flow statement was considerably below the previous year at 1.1247 (previous year: 1.1677), which also applied to the year-end exchange rate used to translate the balance sheet (1.0960 compared with 1.1373).

The impact of transaction effects was limited to the revaluation of open items in foreign currencies, which led to a positive currency result of CHF 0.7 million, partially due to the stronger Dollar over the course of the year.

Overall, the Starrag Group is less affected than average by currency fluctuations, compared to other Swiss industrial companies. Currently 68% of its sales originates from sites located outside Switzerland (unchanged from previous year); materials are sourced from the Euro area whenever possible. Nevertheless, the share of costs incurred in Swiss Francs in 2019 stood at 21%, while 25% of sales was invoiced in Swiss Francs (previous year: 24% of costs and 20% of sales). To reduce its economic currency risks and maintain the competitiveness of the company's manufacturing plants in Switzerland, thereby offsetting pressure from the strong Swiss Franc, the Starrag Group is constantly seeking ways to improve productivity.

### Additional Definitions of Performance Indicators

The financial information in this Annual Report includes in addition certain performance indicators that are not defined by the Swiss GAAP FER.

These are used by management to measure the performance of the company. They might deviate from similar measurement parameters used in other companies and are not to be considered as a replacement for the Swiss GAAP FER indicators.

#### Incoming Orders

Incoming orders include all the orders that have been received during the reporting period, including products (new machines, modernisation, maintenance and repairs).

#### Order On Hand

The orders on hand include all orders that have not yet been completed, net after deduction of the revenue already recognised.

#### Currency-Adjusted Changes

To calculate the currency-adjusted changes, the corresponding key indicators are translated at the exchange rates of the comparative period.

#### Restructuring Costs

Restructuring costs include costs in conjunction with strategic restructuring.

#### Operating Result Before Restructuring Costs EBITR

The operating result before restructuring costs EBITR is calculated as follows:

- + Operating result EBIT
- Restructuring costs

#### Free Cash Flow

The free cash flow is calculated as follows:

- + Cash flow from operating activities, net
- + Cash flow from investment activities, net

#### Net Liquidity

The net liquidity is calculated as follows:

- + Liquid assets
- Current financial liabilities
- Non-current financial liabilities

#### Equity Ratio

To calculate the equity ratio, the equity is divided by the total of the assets.

#### Return on Equity ROE

To calculate the return on equity, the net profit is divided by the equity at the start of the reporting period.

#### Total Shareholder Return TSR

To calculate the total shareholder return, the share price at the start of the reporting period is subtracted from the share price at the end of the reporting period and added to the dividend distribution that has taken place in the reporting period. This interim result is divided by the share price at the start of the reporting period.

# Consolidated income statement

	CHF 1'000	2019	2018
Sales revenue	1	418'138	388'773
Other operating income	2	2'312	2'059
Change in inventory of finished and unfinished goods		-7'100	6'774
Cost of materials and components		-187'091	-173'111
Personnel expenses	3	-154'523	-146'058
Other operating expenses	4	-54'892	-56'259
<b>Earnings before interest, taxes, depreciation and amortization EBITDA</b>		<b>16'844</b>	<b>22'178</b>
Depreciation of tangible fixed assets	9	-7'988	-8'303
Depreciation of intangible assets	10	-4'060	-2'766
<b>Operating result EBIT</b>		<b>4'796</b>	<b>11'109</b>
Financial result	5	-957	-2'221
<b>Profit before taxes</b>		<b>3'839</b>	<b>8'888</b>
Income tax expenses	16	3'038	-484
<b>Net income</b>		<b>6'877</b>	<b>8'404</b>
Thereof:			
• Shareholders of the company		6'802	8'359
• Minority shareholders		75	45
Earnings per share in CHF	6	2.02	2.49
Diluted earnings per share in CHF	6	2.02	2.49

# Consolidated balance sheet

	CHF 1'000	31.12.2019	31.12.2018
Cash and cash equivalents		14'611	31'842
Receivables from goods and services	7	110'553	121'492
Other receivables		6'172	3'572
Inventories	8	108'360	104'782
Prepaid expenses and accrued income		1'672	2'713
<b>Total current assets</b>		<b>241'368</b>	<b>264'401</b>
Tangible fixed assets	9	90'798	99'215
Intangible assets	10	2'426	6'036
<b>Total non-current assets</b>		<b>93'224</b>	<b>105'251</b>
<b>Total assets</b>		<b>334'592</b>	<b>369'652</b>

	CHF 1'000	31.12.2019	31.12.2018
Financial debts	11	11'249	34'072
Payables for goods and services		23'355	30'639
Other liabilities		10'742	12'320
Provisions	12	6'395	4'611
Accrued expenses and deferred income	13	85'940	85'221
<b>Total current liabilities</b>		<b>137'681</b>	<b>166'863</b>
Financial debts	11	2'718	3'094
Provisions	12	16'136	23'051
<b>Total non-current liabilities</b>		<b>18'854</b>	<b>26'145</b>
<b>Total liabilities</b>		<b>156'535</b>	<b>193'008</b>
Share capital		28'560	28'560
Additional paid-in capital		51'884	55'244
Retained earnings		97'569	92'810
<b>Total shareholders' equity, shareholders of the company</b>		<b>178'013</b>	<b>176'614</b>
Minority shareholders		44	30
<b>Total shareholders' equity</b>	14	<b>178'057</b>	<b>176'644</b>
<b>Total liabilities and shareholders' equity</b>		<b>334'592</b>	<b>369'652</b>

# Consolidated cash flow statement

CHF 1'000	<b>2019</b>	2018
Net income	6'877	8'404
Depreciation of tangible fixed assets	12'048	11'069
Change in non-current provisions	-6'528	-289
Other non-cash items	144	211
Change in non financial net working capital		
‣ Receivables from goods and services	8'611	-1'925
‣ Inventories	-5'991	-22'413
‣ Other receivables and deferred expenses	-1'772	-1'115
‣ Payables from goods and services	-5'966	3'360
‣ Other liabilities, accrued expenses and deferred income	3'052	29'571
<b>Cash flow from operating activities, net</b>	<b>10'475</b>	<b>26'873</b>
Capital expenditure for:		
‣ Tangible fixed assets	-4'558	-5'107
‣ Intangible assets	-521	-2'234
Disposals of fixed assets	2'953	194
<b>Cash flow from investing activities, net</b>	<b>-2'126</b>	<b>-7'147</b>
Change in current financial liabilities	-22'096	7'360
Repayment of non-current financial liabilities	-271	-662
Dividend payment	-3'419	-5'094
<b>Cash flow from financing activities, net</b>	<b>-25'786</b>	<b>1'604</b>
Currency translation	206	-560
Net change in cash and cash equivalents	-17'231	20'770
Cash and cash equivalents at beginning of period	31'842	11'072
<b>Cash and cash equivalents at end of period</b>	<b>14'611</b>	<b>31'842</b>

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				Shareholders' equity shareholders of the company	Minority shareholders	Total Shareholders' equity
			Currency translation	Goodwill offset	Others	Total			
<b>31.12.2017</b>	<b>28'560</b>	<b>60'284</b>	<b>7'127</b>	<b>-30'357</b>	<b>111'642</b>	<b>88'412</b>	<b>177'256</b>	<b>39</b>	<b>177'295</b>
Net income	-	-	-	-	8'359	8'359	8'359	45	8'404
Currency translation	-	-	-4'938	977	-	-3'961	-3'961	-	-3'961
Dividend payment	-	-5'040	-	-	-	-	-5'040	-54	-5'094
<b>31.12.2018</b>	<b>28'560</b>	<b>55'244</b>	<b>2'189</b>	<b>-29'380</b>	<b>120'001</b>	<b>92'810</b>	<b>176'614</b>	<b>30</b>	<b>176'644</b>
Net income	-	-	-	-	6'802	6'802	6'802	75	6'877
Currency translation	-	-	-2'926	883	-	-2'043	-2'043	-2	-2'045
Dividend payment	-	-3'360	-	-	-	-	-3'360	-59	-3'419
<b>31.12.2019</b>	<b>28'560</b>	<b>51'884</b>	<b>-737</b>	<b>-28'497</b>	<b>126'803</b>	<b>97'569</b>	<b>178'013</b>	<b>44</b>	<b>178'057</b>

# Notes to the Consolidated Financial Statement

## Machine Tools for Greater Accuracy and Productivity

The Starrag Group is a global technology leader in manufacturing high-precision machining tools for milling, turning, boring and grinding work pieces of metallic, composite and ceramic materials. Its customers include leading companies in the customer sectors of Aerospace, Energy, Transportation and Industrial (Industrial Components, Luxury Goods, Med Tech). Its portfolio of machine tools in combination with wide-ranging technology and services enables customers to substantially enhance their quality and productivity.

The umbrella brand Starrag unites the product areas of Berthiez, Bumotec, Dörries, Droop+Rein, Ecospeed, Heckert, Scharmann, SIP, Starrag, TTL and WMW. Headquartered in Rorschach/Switzerland, the company Group operates production sites in Switzerland, Germany, France, the UK and India as well as sales and services companies in numerous other countries.

The shares of Starrag Group Holding AG are listed on the SIX Swiss Exchange.

As per 31 December and as per the end of the previous year, Starrag Group Holding AG held the following fully consolidated participations directly or significantly indirectly with a capital share of 100% (provided not otherwise specified):

- Starrag Group Holding GmbH, Chemnitz, Germany
- Starrag Group Holdings Ltd., Birmingham, UK
- Starrag AG, Rorschacherberg, Switzerland
- Starrag GmbH, Chemnitz, Germany
- Starrag SAS, Saint-Etienne, France
- Starrag Service Center GmbH & Co. KG, Ichttershausen, Germany (capital share 80%)
- Starrag Technology GmbH, Mönchengladbach, Germany
- Starrag Vuadens SA, Vuadens, Switzerland
- Toolroom Technology Limited, Haddenham, UK
- Starrag (Shanghai) Co. Ltd., Shanghai, China
- Starrag India Private Limited, Bangalore, India
- Starrag Italia Sri, Rivoli, Italy
- Starrag RU Ltd., Moscow, Russia
- Starrag UK Limited, Birmingham, UK
- Starrag USA Inc., Hebron USA

## Capital Management

The managed capital corresponds to the shareholders' equity shown in the consolidated balance sheet. The main goals of capital management are to ensure the necessary financial flexibility and to optimise 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, taking into consideration economic conditions and loan agreements (see Note 11 ). In particular, the General Meeting of the shareholders passes resolutions each year on the appropriation of profits and thus the dividend payment.

Business performance is measured using an internal income statement. The results can then be classified and analysed in various different ways within this income statement. The primary control key figure is the earnings before interest and taxes (EBIT). Additionally, a balanced set of key figures is reported on a regular basis, which gives consideration to the areas of conflict of liquidity, growth and profitability.

## Segment Information

Internal reporting to the Board of Directors is carried out according to the existing operational business units. The business unit High Performance Systems is responsible for the product areas Starrag and Ecospeed. The business unit Horizontal Machining Systems processes the product areas Heckert, Scharmann/Ecoforce and WMW. The business unit Large Parts Machining Systems includes the product areas Dörries, Berthiez and Droop+Rein. The business unit Ultra Precision Machining Centres is responsible for the product areas Bumotec and SIP. A significant proportion of the employees are responsible for the central functions distributed among the locations and regions for all business units and brands.

## 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 as well as 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 as well as 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 operating activity of the Starrag Group and
- natural events (such as fires) could impair operating activities.

The Board of Directors and the Executive Board 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 the Executive Board and the Board of Directors.

The following goals are 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 instructions as well as a risk log, in which operational data as well as an action plan for risk management are documented. The Executive Board has designated an officer for implementing and moderating risk management, who reports directly to the CFO.

An annual risk review includes diligent identification, analysis and evaluation of risks and a definition of appropriate measures to reduce the risks. This information is documented in a group-wide risk matrix. The risk management officer monitors the implementation of the measures. In business processes with recurring risks, the resolved measures are integrated as process steps in the operative processes of the daily business. On an annual basis, the Executive Board reports on the nature, extent and assessment of significant risks and the measures taken for risk minimisation to the Board of Directors. Risks in accounting and financial reporting are monitored and reduced by a suitable internal control system.

### Financial Risk Management

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

#### **Risk of Receivables Default**

The risk of receivables default is limited by the number and the geographical spread of customer credit balances. In addition, it is limited by adequately examining the financial circumstances of customers before entering into a contract. In most transactions, customers make advance payments upon order confirmation. Delivery might only follow against prepayment or credit. The outstanding receivables are continuously monitored.

#### **Counterparty Risk**

The Starrag Group mainly holds its liquid assets as deposits or current account deposits with major creditworthy banks. These deposits generally have a term of less than three months. Transactions with derivative financial instruments are also only concluded with major creditworthy banks.

#### **Foreign Currency Risk**

The Starrag Group does not engage in business operations in foreign currencies which show an unusual volatility. The foreign currency risk results mainly from sales and purchases which are not made in a functional currency. In the case of orders in foreign currencies, hedging transactions (forward exchange contracts and currency options) are sometimes deployed with major credit institutions as a counterparty in order to hedge foreign currency risks. Probable future orders will also be hedged in certain cases. Foreign currency risks arising from the conversion of income statement and balance sheet items of foreign group companies are not hedged.

#### **Interest Rate Risk**

Interest rate risk results primarily from variable interest rates for financial liabilities. In some cases, these interest rates are fixed through fixed advances and fixed interest rates in the short- or long-term.

#### **Liquidity Risk**

The liquidity risk is limited by contractually agreed cash lines which cover the peak demand for operating resources. It is continuously monitored by liquidity status reports.

## Management assumptions and Estimates

Estimates and assumptions are continually evaluated and are based on experience values and other factors, including the expectation and assessment of future events that are believed to be reasonable under the prevailing circumstances. The resulting accounting estimates will by definition seldom comply with the actual subsequent outcome. The main sources of estimation uncertainties are:

### **Determination of net realisable values and profit shares in the case of construction contracts valued with percentage of completion**

While preparing the financial statement, the Group continuously examines the valuation of various balance sheet items which are connected with the regular machine tool business. In this connection, assumptions must be made with regard to costs for completion and realisable market prices. Should situations occur which change original assumptions regarding realisable income, costs that are still necessary or work progress, these assumptions will be adjusted.

These adjustments may lead to adjustments affecting the net income of the balance sheet items concerned. The book value of the balance sheet items concerned is shown in Note 15 (Construction Contracts).

### **Provisions for Warranty Obligations and Onerous Contracts**

In the ordinary course of business, the Group may be involved in legal disputes. Provisions for pending disputes are measured on the basis of available information based on a realistically expected cash outflow. The final outcome of such a dispute might require recognition of adjustments in provisions in the income statement (see Note 12).

### **Income Taxes**

The evaluation of current tax liabilities is subject to an interpretation of the tax laws in the respective countries, the suitability of which will be mostly assessed retrospectively for several financial years in the context of the final assessment and during tax audits by the tax authorities. Substantial adjustments in tax expenses may occur as a result (see Note 16).



## Significant Accounting Principles

### Principles of Presentation

The consolidated financial statement of the Starrag Group has been prepared in accordance with the Guidelines of the Accounting Regulations (Swiss GAAP FER). In addition, the provisions of the Listing Rules of the SIX Swiss Exchange as well as Swiss accounting legislation have been complied with. This consolidated financial statement is based on historical costs, with the exception of liquid assets and derivative financial instruments, which are valued at market value. Reporting is in Swiss Francs (CHF). This financial statement includes estimates and assumptions that affect the reported figures and related disclosures. Actual results may differ from these estimates.

### Principles of Consolidation

The scope of consolidation comprises the annual annual statements of Starrag Group Holding AG and all directly or indirectly controlled subsidiaries. Assets and liabilities as well as income and expenses are fully included in the consolidated financial statement using the full consolidation method. All intra-group relationships (income and expenses, receivables and liabilities) as well as intercompany profits on intra-group transactions and inventories are eliminated.

Capital consolidation is based on the purchase method, i.e. the acquisition costs of an acquired company are offset against the net assets measured at fair value at the time of acquisition. Any resulting goodwill is offset directly with the retained earnings in shareholders' equity by purchase. In the Notes to the Financial Statement, the effects of a theoretical capitalisation and any value impairment are shown by applying a depreciation period

of five years. In the event of a possible subsequent sale, the goodwill offset against shareholders' capital at the time of the acquisition is calculated in profit or loss against the proceeds of the sale. The earnings of acquired companies are included in the consolidated accounts as of the acquisition date.

### Currency Conversion

Foreign currency transactions are converted at the exchange rate of the transaction date. Outstanding foreign currency receivables and payables at balance sheet date are converted using the exchange rate of that date. The resulting exchange rate differences are recorded in the income statement. Non-monetary items are not revaluated at the balance sheet date. Assets and borrowed capital of foreign subsidiaries are converted to CHF using the exchange rates at the balance sheet date. Annual average exchange rates are applied to convert the income statements. Conversion differences arising from the consolidation of foreign currency financial statements are recorded directly in retained earnings.

### Sales Revenue and Profit Realisation

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

**Research and Development**

Research costs are charged to the income statement on a continuous basis. Development costs will only be capitalised to the extent that the amount to be capitalised is covered by corresponding expected income. Capitalised developments are reassessed annually with regard to impairment. All other research and development costs are charged to the income statement.

**Income Taxes**

Income tax expense includes all income tax levied on the taxable profits of the group. For tax, in particular withholding tax levied on dividend payments of retained earnings (mainly of group companies), provisions are only set up if the distribution of such profits is probable. Provisions for deferred income taxes will be set up according to the liability method.

This takes into account the income tax effects of temporary differences between the intercompany and the tax-related assets and liabilities. Tax losses carried forward are only taken into account in the calculation of deferred income tax 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 in hand, postal cheque 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 balanced at their nominal value less necessary value adjustments. The value adjustment is determined on the basis of due dates and recognisable credit risks. Receivables include the value from construction contracts valued according to percentage of completion after deduction of received payments.

**Inventories**

Raw materials and supplies as well as trading goods are assessed at average purchase costs, manufactured products at average manufacturing costs. Discounts are recognised as purchase cost reductions. If the realisable 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 production and construction overhead costs. Obsolete and slow-moving items are adjusted appropriately. Inventories also include advance payments to suppliers.

**Tangible Fixed Assets**

Tangible fixed assets are carried at acquisition costs or manufacturing costs less depreciation required for business purposes. Depreciation of tangible fixed assets 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 resulting from the disposal of tangible fixed assets are recognised in the income statement. Expenditure for goods of low value are debited directly to operating expenses in the income statement.

### **Intangible Assets**

Goodwill resulting from the acquisition of a company is offset against retained earnings in shareholders' equity at the time of an acquisition. In the Notes to the Financial Statement, the effects of a theoretical capitalisation and any impairment of value are shown using a depreciation period of five years.

Other intangible assets are carried at acquisition or manufacturing costs less depreciation required for business purposes. These intangible assets are amortised on a straight-line basis over their estimated useful lives, which is 3 to 8 years for software and 5 to 10 years for development costs.

### **Provisions**

Provisions are made if a legal or constructive obligation resulting from a past event exists at the key date, 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.

### **Employee Benefits**

The professional pension situation for the Starrag Group companies' personnel is governed by the legal regulations and practices of the respective country and is correspondingly different.

The pension situation of the companies located in Switzerland is governed by the provisions of the Swiss Federal Law on Occupational Benefits. The Swiss pension funds of the Starrag Group are foundations which are legally independent of the Starrag Group, and which have re-insured the pension plans (according to the contribution plans defined by law) with an insurance company in a congruent manner. The plans are financed by employer and employee contributions, which are periodically determined such that the insurance premiums due can be financed.

The German companies do not maintain any professional pension plans. Staff are insured with the national pension insurance scheme of Germany.

The economic obligations or benefits of Swiss pension plans are determined on the basis of the financial statement prepared in accordance with Swiss GAAP FER 26 "Accounting for Pension Funds" accounting standard. The economic impact of pension plans of foreign subsidiaries is determined according to the valuation methods applied locally. Employer contribution reserves and comparable items are capitalised in accordance with Swiss GAAP FER 16.

### **Financial Instruments**

Financial assets include liquid assets and receivables. Financial liabilities mainly include financial debts and operating liabilities. These are valued according to the "effective interest method" at discounted costs. In addition to the effective interest payments, interest expenses also include the annual compound interest and pro-rata transaction costs.

In order to be able to react to short-term foreign exchange fluctuations, derivative currency hedge instruments can be held. Financial instruments held for trading are recognised at market value. Changes in market value are included in the financial result.

The hedging of future cash flows ("cash flow hedges"), whose underlying transactions have not yet been recognised in the balance sheet, are disclosed in the Notes to the Financial Statement, if future cash flows will occur with high probability.

## 1. Sales revenue by production site

	CHF 1'000	2019	2018
Switzerland		133'973	124'902
Germany		234'461	219'984
Other countries		49'704	43'887
<b>Total</b>		<b>418'138</b>	388'773

## 2. Other operating income

Other operating income includes in particular compensation payments from insurance companies, income from subleases, gains on the sale of fixed assets and government grants.

## 3. Personnel expenses

	CHF 1'000	2019	2018
Wages and salaries		116'952	116'505
Pension benefit expenses	17	2'608	2'502
Other social benefit expenses		20'396	19'922
Restructuring charges		8'459	1'940
Other personnel expenses		6'108	5'189
<b>Total personnel expenses</b>		<b>154'523</b>	146'058

## 4. Other operating expenses

Other operating expenses include in particular travel expenses, sales expenses, administration expenses, vehicle and transport charges, expenses for premises, repair and maintenance of tangible fixed assets as well as other expenses.

## 5. Financial result

	CHF 1'000	2019	2018
Interest income		118	154
Interest expenses		-559	-581
Currency result		710	-267
Other financial expenses		-1'226	-1'527
<b>Total financial result</b>		<b>-957</b>	-2'221

## 6. Information per share

Earnings per share are calculated from earnings after income taxes less share of minority interest based on the average number of shares outstanding (excluding treasury shares). In 2019, this number of shares was 3,360,000 (unchanged from previous year). Based on the net profit attributable to the shareholders of the company of CHF 6.8 million (prior year CHF 8.4 million) net earnings per share amount to CHF 2.02 (prior year CHF 2.49). As the company has not issued any stock options or convertible bonds, earnings per share were not diluted.

## 7. Receivables from goods and services

	CHF 1'000	<b>31.12.2019</b>	31.12.2018
Trade receivables from goods and services		30'907	34'985
Receivables from construction contracts	15	79'646	86'507
<b>Total receivables</b>		<b>110'553</b>	121'492
<b>Thereof:</b>			
▸ not due		99'874	111'080
▸ past due < 90 days		7'468	7'772
▸ past due ≥ 90 days		3'211	2'640

Receivables are stated net of value adjustments of CHF 2.1 million (prior year CHF 1.6 million).

## 8. Inventories

	CHF 1'000	<b>31.12.2019</b>	31.12.2018
Raw materials and components		61'122	59'184
Work in progress		29'290	31'299
Finished products		6'405	6'176
Prepayments to suppliers		11'543	8'123
<b>Total inventories</b>		<b>108'360</b>	104'782

Inventories are stated net of value adjustments of CHF 39.4 million (prior year CHF 38.8 million).



## 9. Tangible fixed assets

CHF 1'000	2019				2018			
	Land and buildings	Machinery and equipment	Other tangible fixed assets	Total	Land and buildings	Machinery and equipment	Other tangible fixed assets	Total
Cost at beginning of year	118'915	54'756	12'777	186'448	119'519	55'033	12'738	187'290
Additions	604	2'216	1'013	3'833	1'703	2'875	823	5'401
Disposals	-3'946	-2'571	-499	-7'016	-140	-1'563	-411	-2'114
Currency translation	-1'719	-1'267	-336	-3'322	-2'167	-1'589	-373	-4'129
<b>Cost at year end</b>	<b>113'854</b>	<b>53'134</b>	<b>12'955</b>	<b>179'943</b>	<b>118'915</b>	<b>54'756</b>	<b>12'777</b>	<b>186'448</b>
Accumulated depreciation at beginning of year	35'591	40'858	10'784	87'233	32'936	39'911	10'267	83'114
Depreciation	3'372	3'569	1'047	7'988	3'546	3'492	1'265	8'303
Disposals	-1'005	-2'565	-496	-4'066	-138	-1'384	-411	-1'933
Currency translation	-731	-986	-293	-2'010	-753	-1'161	-337	-2'251
<b>Accumulated depreciation at year end</b>	<b>37'227</b>	<b>40'876</b>	<b>11'042</b>	<b>89'145</b>	<b>35'591</b>	<b>40'858</b>	<b>10'784</b>	<b>87'233</b>
Net carrying value at beginning of year	83'324	13'898	1'993	99'215	86'583	15'122	2'471	104'176
<b>Net carrying value at year end</b>	<b>76'627</b>	<b>12'258</b>	<b>1'913</b>	<b>90'798</b>	<b>83'324</b>	<b>13'898</b>	<b>1'993</b>	<b>99'215</b>

## 10. Intangible assets

CHF 1'000	2019			2018		
	Software	Development cost	Total	Software	Development cost	Total
Cost at beginning of year	12'778	15'461	28'239	11'940	14'866	26'806
Additions	521	-	521	1'306	928	2'234
Disposals	-94	-4'440	-4'534	-188	-	-188
Currency translation	-276	-211	-487	-280	-333	-613
<b>Cost at year end</b>	<b>12'929</b>	<b>10'810</b>	<b>23'739</b>	<b>12'778</b>	<b>15'461</b>	<b>28'239</b>
Accumulated amortization at beginning of year	10'085	12'118	22'203	9'288	10'775	20'063
Depreciation	1'140	2'920	4'060	1'198	1'568	2'766
Disposals	-94	-4'440	-4'534	-172	-	-172
Currency translation	-238	-178	-416	-229	-225	-454
<b>Accumulated depreciation at year end</b>	<b>10'893</b>	<b>10'420</b>	<b>21'313</b>	<b>10'085</b>	<b>12'118</b>	<b>22'203</b>
Net carrying value at beginning of year	2'693	3'343	6'036	2'652	4'091	6'743
<b>Net carrying value at year end</b>	<b>2'036</b>	<b>390</b>	<b>2'426</b>	<b>2'693</b>	<b>3'343</b>	<b>6'036</b>

## 11. Financial liabilities

	CHF 1'000	31.12.2019	31.12.2018
Current financial liabilities		11'249	34'072
Non-current financial liabilities		2'718	3'094
<b>Total financial liabilities</b>		<b>13'967</b>	<b>37'166</b>
Thereof in:			
▸ EUR		12'469	37'166
▸ CHF		1'498	-
Average interest rate		0.9%	0.9%
Undrawn current cash credit line		89'276	69'913

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. The financial covenants were complied with in 2019 and 2018.

## 12. Provisions

CHF 1'000	2019			2018		
	Deferred income taxes	Warranty	Total	Deferred income taxes	Warranty	Total
Carrying value at beginning of year	19'955	7'707	27'662	21'930	7'443	29'373
Addition	2'957	7'689	10'646	2'685	7'929	10'614
Utilization	-6'315	-6'296	-12'611	-4'178	-7'310	-11'488
Release	-2'625	-	-2'625	-95	-144	-239
Currency translation	-306	-235	-541	-387	-211	-598
<b>Carrying value at year end</b>	<b>13'666</b>	<b>8'865</b>	<b>22'531</b>	19'955	7'707	27'662
Thereof:						
▸ current	-	6'395	6'395	-	4'611	4'611
▸ non-current	13'666	2'470	16'136	19'955	3'096	23'051

Die Rückstellungen für latente Ertragssteuern enthalten einen Anspruch für noch nicht genutzte steuerliche Verlustvorträge von 5.0 Mio. CHF (Vorjahr 3.7 Mio CHF).

### 13. Accrued expenses and deferred income

	CHF 1'000	31.12.2019	31.12.2018
Accrued costs for customer orders		13'421	10'045
Liabilities from construction contracts	15	37'208	48'837
Personnel expenses		21'236	15'669
Commissions		261	227
Current income taxes		5'396	3'758
Other		8'418	6'685
<b>Total accrued expenses and deferred income</b>		<b>85'940</b>	85'221

### 14. Shareholders' equity

The share capital of CHF 28.6 million consists of 3'360'000 registered shares with the nominal value of CHF 8.50 each. The company has no outstanding conditional capital and there is no authorised capital (previous year: no conditional capital, CHF 5.7 million authorised capital).

As at 31 December 2019, non-distributable reserves amounted to CHF 5.7 million, unchanged from the previous year.

Goodwill resulting from the acquisition of a company is offset against retained earnings in shareholders' equity at the time of an acquisition. This was completely depreciated at the start of the previous period.

### 15. Construction contracts

	CHF 1'000	2019	2018
Revenue from construction contracts valued using the Percentage of completion method		319'064	297'643
	CHF 1'000	31.12.2019	31.12.2018
Contract costs incurred and recognized profit share		290'094	311'528
Advance payments received		-247'656	-273'858
<b>Net carrying value</b>		<b>42'438</b>	37'670
Thereof:			
▸ Receivables from goods and services	7	79'646	86'507
▸ Accrued expenses and deferred income	13	-37'208	-48'837

## 16. Income tax expenses

	CHF 1'000	2019	2018
Income before taxes		3'839	8'888
Expected tax rate		53.6%	2.7%
Expected income tax expenses		-2'059	243
Debits/credits from prior reporting periods		344	-50
Non-deductable expenses/non-taxable income		372	232
Change in tax rate		-2'620	438
Effect of unrecognized tax loss carry forwards		925	-379
<b>Income tax expenses</b>		<b>-3'038</b>	<b>484</b>
Thereof:			
▸ Current income tax expenses		-3'111	-2'072
▸ Deferred income tax expenses		6'149	1'588

The expected tax rate was 53.6% (prior year 2.7%) and corresponds to the weighted average tax rate resulting from the profit/loss before tax and the tax rate of each individual Group company. The change in the expected tax rate is the result of changed profitability situations and the tax rates at various Group companies.

There are unrecognised claims for unused tax losses carried forward of CHF 2.7 million (previous year CHF 3.2 million). Of this, CHF 1.5 million (previous year CHF 1 million) will expire within one to three years, CHF 1.2 million (previous year CHF 2.1 million) within four to seven years and in the previous year CHF 0.1 million after more than seven years. See also Note 12.

## 17. Pension benefits

CHF 1'000	2019				2018			
	Patronage funds	Employee benefit plans without surplus/deficit	Employee benefit plans with surplus	Total	Patronage funds	Employee benefit plans without surplus/deficit	Employee benefit plans with surplus	Total
Surplus/deficit pension benefit plan at end of year	1'388	-	7'159	<b>8'547</b>	1'179	-	5'971	7'150
Economic benefit at end of year	-	-	-	-	-	-	-	-
Change in economic benefit	-	-	-	-	-	-	-	-
Accrued contributions	-	325	2'283	<b>2'608</b>	-	336	2'166	2'502
Pension benefit expenses	-	325	2'283	<b>2'608</b>	-	336	2'166	2'502

There are no employer contribution reserves.

## 18. Pledged assets

CHF 1'000	<b>31.12.2019</b>	31.12.2018
To ensure financial debts in the amount of the following land and buildings are mortgaged:	2'737	3'104
▸ Net carrying value	5'877	6'589
▸ Charge	5'877	6'589

## 19. Derivative financial instruments

CHF 1'000	<b>31.12.2019</b>	31.12.2018
<b>Forward currency exchange contracts:</b>		
<b>Contract value</b>	<b>18'485</b>	26'687
Replacement value:		
▸ positive	775	158
▸ negative	-42	-105
<b>Currency options:</b>		
<b>Contract value</b>	<b>14'890</b>	29'768
Replacement value:		
▸ positive	225	66
▸ negative	-1	-171

## 20. Operating lease liabilities

CHF 1'000	<b>31.12.2019</b>	31.12.2018
▸ Due within 1 year	2'149	2'193
▸ Due within 2 to 5 years	1'789	1'961
▸ Due after more than 5 years	443	513
<b>Total operating lease liabilities</b>	<b>4'381</b>	4'667

The lease contracts are for premises, cars and IT equipment.



## 21. Other unrecognised obligations

The Starrag Group is occasionally confronted with claims for damages, which are to be regarded as a normal side effect of ordinary business activities. These mainly relate to warranties, property and financial damages as well as product liability. Provisions and sureties exist for these claims, which the Starrag Group assumes will cover all foreseeable risks.

## 22. Exchange rates

	CHF 1'000	2019	2018
Average rates (for income statement and cash flow statement)			
1 EUR		1.1247	1.1677
1 USD		1.0039	0.9880
1 GBP		1.2817	1.3205
1 CNY		0.1455	0.1497
	CHF 1'000	31.12.2019	31.12.2018
Year end rates (for balance sheet)			
1 EUR		1.0960	1.1373
1 USD		0.9778	0.9943
1 GBP		1.2835	1.2616
1 CNY		0.1401	0.1446

## 23. Events after the balance sheet date

The consolidated financial statement was approved and released for publication by the Board of Directors on 4 March 2020. It is also subject to approval by the Annual General Meeting of the shareholders scheduled for 25 April 2020.

# 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 Group Holding AG and its subsidiaries (the Group), which comprise the consolidated income statement for the year ended 31 December 2019, the consolidated balance sheet as at 31 December 2019, the consolidated cash flow statement 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 consolidated financial statements (pages 97 to 115) give a true and fair view of the consolidated financial position of the Group as at 31 December 2019 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with Swiss GAAP FER and comply with Swiss law.

#### 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 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 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 Group materiality: CHF 2'000'000

We concluded full scope audit work at six reporting units in two countries. Our audit scope addressed over 72% of the Group's revenue.

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

Accounting construction contracts



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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 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 Group 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.

<b>Overall Group materiality</b>	CHF 2'000'000
<b>How we determined it</b>	0.5% of sales revenue
<b>Rationale for the materiality benchmark applied</b>	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 200'000 identified during our audit as well as any misstatements below that amount which, in our view, warranted reporting for qualitative reasons.

### 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 component auditors in the PwC network. As Group auditor, we performed the audit of the consolidation and the disclosures and the presentation of the consolidated financial statements. 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 sufficient appropriate audit evidence was obtained from the work of the component auditors to provide a basis for our opinion. Our involvement 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 recognition and measurement of term construction contracts and specifying the materiality levels to be applied.

### 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 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.



### Accounting construction contracts

#### Key audit matter

Starrag Group has construction contracts, which it recognises and measures using the percentage-of-completion (PoC) method in accordance with Swiss GAAP FER 22 – Long-term contracts. The degree of completion is determined on the basis of the direct contract costs excluding costs of materials.

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 result for the period.

Please refer to page 104 (Management assumptions and estimates), page 105 (Key accounting principles – Sales revenue and profit realisation) and page 112 (Other notes – Percentage-of-completion-valued construction contracts) in the notes to the consolidated financial statements.

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

Our audit procedures regarding the recognition and measurement of construction contracts using the percentage-of-completion (PoC) method comprised in particular the following:

- We assessed the design and the existence of the key controls regarding the production orders and tested the effectiveness of selected controls.
- We selected various production orders (sample testing based on the contract volumes, the contribution margin and changes in the margin compared with the planning phase) and focussed our testing on the following, in particular:
  - We assessed the contract related calculations to determine whether the contractual terms – including sale proceeds and penalties for non-performance – had been recorded appropriately.
  - We discussed with the project controllers and project managers the progress of the projects based on the latest project accounts, the costs still to be incurred until their completion and changes in the margin.
  - We obtained written information from the legal representatives of the Group. We inspected this written information with regard to indications of potential quality deficiencies or penalties for non-performance and assessed whether these matters were presented appropriately in the consolidated financial statements.
- During the audit, we conducted on-site inspections of various machines still under construction and assessed the progress of the projects.
- For the production orders 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.
- We checked the arithmetical correctness of the key assessments relating to the progress of projects, costs to be incurred in the future and sales revenue.
- We checked whether the disclosures in the consolidated financial statements were made in accordance with Swiss GAAP FER 22 – Long-term contracts.

The results of our audit support the recognition and measurement of construction contracts and their disclosure in the 2019 consolidated financial statements.



#### 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 Swiss GAAP FER 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 either intends 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 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

Oliver Kuntze  
Audit expert  
Auditor in charge

Oscar Maier  
Audit expert

St. Gallen, 4 March 2020



# Income statement

CHF 1'000	<b>2019</b>	2018
Other operating income:		
▸ Income from investments	21'956	8
Financial income	3'462	4'679
<b>Total revenue</b>	<b>25'417</b>	4'687
Personnel expenses	-291	-555
Other operating expenses	-23	-751
Depreciation and value adjustments of fixed assets	-431	-431
Financial expenses	-916	-909
Income tax expenses	-233	-6
<b>Net income</b>	<b>23'522</b>	2'035

# Balance sheet

	CHF 1'000	31.12.2019	31.12.2017
Cash and cash equivalents		16	8
Other receivables:			
▸ from group companies		11'056	4'805
▸ from third parties		1	-
Prepaid expenses		34	25
<b>Total current assets</b>		<b>11'107</b>	<b>4'838</b>
Financial assets:			
▸ Loans to group companies		50'194	54'453
Investments	7	144'174	123'517
<b>Total fixed assets</b>		<b>194'368</b>	<b>177'970</b>
<b>Total assets</b>		<b>205'475</b>	<b>182'808</b>
	CHF 1'000	31.12.2019	31.12.2018
Other liabilities:			
▸ to group companies		6'879	2'034
▸ to third parties		18	23
Accrued expenses and deferred income		721	547
<b>Total current liabilities</b>		<b>7'618</b>	<b>2'604</b>
<b>Total liabilities</b>		<b>7'618</b>	<b>2'604</b>
Share capital	8	28'560	28'560
Legal capital reserves:			
▸ Capital contribution reserves	12	51'121	54'481
▸ Other legal capital reserves		1'222	1'222
Voluntary retained earnings			
▸ Retained earnings		93'432	91'397
▸ Net income		23'522	2'035
<b>Total shareholders' equity</b>		<b>197'857</b>	<b>177'695</b>
<b>Total liabilities and shareholders' equity</b>		<b>205'475</b>	<b>180'299</b>

# Notes to the Financial Statement

## Key Accounting Principles

### **1. Principles of presentation**

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

The company prepares a consolidated financial statement in accordance with the Swiss GAAP FER accounting standards. Correspondingly, the company does not prepare any additional Notes to the Financial Statement, a management report or a cash flow statement.

The main balance sheet items are accounted for as explained below.

### **2. Other current receivables and liabilities**

Other current receivables and liabilities are carried at their nominal value. Individual value adjustments on other current receivables are recognised taking into account the maturity structure and identifiable credit risks. For the remainder, general value adjustments 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 year-end exchange rate, whereby unrealised losses are recognised but unrealised gains are not recognised.

### **4. Shareholdings**

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

### **5. Currency conversion**

Transactions in foreign currencies are converted into Swiss Francs at the exchange rate valid at the time of the transaction. Pursuant to the imparity principle, assets and liabilities in foreign currencies are converted into Swiss Francs at the year-end rate.

## Supplementary Information and Explanations on the Financial Statement

### 6. Full-time employees

The company does not have any employees.

### 7. Shareholdings

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

- Starrag Group Holding GmbH, Chemnitz, Germany (share capital EUR 4.5 million)
- Starrag Group Holdings Ltd., Birmingham, UK (share capital GBP 0.1 million)
- Starrag AG, Rorschacherberg, Switzerland (share capital CHF 10 million)
- Starrag GmbH, Chemnitz, Germany (share capital CHF 5.1 million)
- Starrag SAS, Saint-Etienne, France (share capital CHF 1.3 million)
- Starrag Service Center GmbH & Co. KG, Ichtshausen, Germany (share capital EUR 0.1 million) (capital share 80%)
- Starrag Technology GmbH, Mönchengladbach, Germany (share capital EUR 22 million)
- Starrag Vuadens SA, Vuadens, Switzerland (share capital CHF 0.5 million)
- Toolroom Technology Limited, Haddenham, UK (share capital GBP 0.02 million)
- Starrag (Shanghai) Co. Ltd., Shanghai, China (share capital CNY 1.5 million)
- Starrag India Private Limited, Bangalore, India (share capital INR 848 million)
- Starrag Italia Srl, Rivoli, Italy (share capital EUR 0.01 million)
- Starrag RU Ltd., Moscow, Russia (share capital RUB 2 million)
- Starrag UK Limited, Birmingham, UK (share capital GBP 1 million)
- Starrag USA Inc., Hebron, USA (share capital USD 0.03 million)

Income from investments in the year under review includes a recovery in the value of investments of CHF 4.2 million.

### 8. Share capital

The share capital of CHF 28.6 million consists of 3,360,000 registered shares with the nominal value of CHF 8.50 each. The company has no outstanding conditional capital and there is no authorised capital (previous year: no conditional capital, CHF 5.7 million authorised capital).

## 9. Major shareholders

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

	31.12.2019	31.12.2018
Walter Fust, Freienbach, Switzerland	55.20%	55.20%
Eduard Stürm AG, Goldach, Switzerland	9.26%	9.26%
Max Rössler, Hergiswil / Parmino Holding AG, Goldach, Switzerland	7.98%	7.98%

## 10. Compensations

Compensations to the Board of Directors and to the Executive Board are disclosed in the compensation report from page 82 of the annual report.

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

	Number of shares	31.12.2019	31.12.2018
Prof. em. Dr. Christian Belz, Member		2'800	2'800
Daniel Frutig, Chairman until 26.04.2019		n/a	3'040
Walter Fust, Chairman from 26.04.2019		1'854'703	1'854'703
Adrian Stürm, Member		27'150	27'150
Dr. Bernhard Bringmann, Head BU High Performance Systems		121	n/a
Gerold Brüttsch, CFO		400	400
Günther Eller, Head Customer Service		200	200

## 12. Capital contribution reserves

The reported legal capital contribution reserves at 31 December 2019 amounted to CHF 51.1 million (prior year CHF 54.5 million), of which CHF 47.9 million (prior year CHF 51.3 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. Securities for the benefit of Group companies

The total amount of securities furnished for third-party liabilities amounts to CHF 362.2 million (prior year CHF 371.4 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	2019	2018
Retained earnings		93'432	91'397
Net income		23'522	2'035
<b>Retained earnings</b>		<b>116'954</b>	93'432
<b>To be carried forward</b>		<b>116'954</b>	93'432

## Proposal of the Board of Directors for the appropriation of legal capital contribution reserves

	CHF 1'000	2019	2018
<b>Available capital contribution reserves</b>	12	<b>51'121</b>	54'481
Withholding tax free distribution		-	-3'360
<b>To be carried forward</b>		<b>51'121</b>	51'121

At the General Meeting on 25 April 2020, the Board of Directors will propose the distribution of a dividend of CHF 1.00 in the form of a reduction of the par value per registered share of CHF 8.50 to CHF 7.50 (total reduction CHF 3.4 million). In addition, the Board of Directors will propose that the available retained earnings of CHF 117 million and the available reserve from capital contribution of CHF 51.1 million will be carried forward.

In the previous year, a dividend distribution from legal reserves from capital contributions of CHF 1.00 per registered share (total distribution CHF 3.4 million) was carried out according to the resolution of the General Meeting. In addition, the Annual General Meeting decided that the available retained earnings of CHF 93.4 million would be 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 income statement for the year ended 31 December 2019, the balance sheet as at 31 December 2019, income statement and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 120 bis 125) as at 31 December 2019 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

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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.

<b>Overall materiality</b>	CHF 900'000
<b>How we determined it</b>	0.5% of total assets
<b>Rationale for the materiality benchmark applied</b>	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.

### 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.

### 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

Key audit matter	How our audit addressed the key audit matter
Investments in subsidiaries is a significant asset category on the balance sheet (CHF 144.2 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. Doing so involves significant scope for judgement, particularly to determine the assumptions to use concerning future business results.	In our audit of investments in subsidiaries, we performed the following main audit procedures: <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.</li> </ul>
In identifying the potential need for impairment of investments in subsidiaries, Management uses a predefined impairment testing process.	<ul style="list-style-type: none"> <li>We checked for plausibility the key assumptions applied by Management (revenue, margin growth and discount rate).</li> </ul>
Please refer to page 122 and 123 (Investments) of the notes to the financial statements.	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 2019.



**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 EXPERT-suisse: <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

A handwritten signature in black ink, appearing to read 'OK' with a stylized flourish.

Oliver Kuntze  
Audit expert  
Auditor in charge

A handwritten signature in black ink, appearing to read 'OM' with a stylized flourish.

Oscar Maier  
Audit expert

St. Gallen, 4 March 2020

## Five-year overview

CHF 1'000	2019	2018	2017	2016	2015
	<b>FER</b>				IFRS <sup>1)</sup>
Order intake	343.2	461.0	349.3	480.3	333.4
Order backlog at year end	284.3	365.9	301.7	348.3	237.8
Sales revenue	418.1	388.8	405.3	371.6	363.7
Operating result before depreciation and amortization EBITDA	16.8	22.2	26.1	19.8	27.1
Operating result EBIT	4.8	11.1	15.3	9.3	14.7
Net income	6.9	8.4	12.1	6.1	9.5
EBITDA as % of sales revenue	4.0%	5.7%	6.4%	5.3%	7.4%
EBIT as % of sales revenue	1.1%	2.9%	3.8%	2.5%	4.0%
Cash flow from operating activities	10.5	26.9	13.1	21.2	11.0
Capital expenditure in non-current assets	5.1	7.3	11.7	19.4	22.3
Free cash flow	8.3	19.7	3.9	1.8	-11.3
Employees (full-time equivalents, annual average)	1'514	1'516	1'503	1'524	1'573
Total assets	334.6	369.7	335.3	316.3	341.5
Net cash	0.6	-5.3	-20.7	-18.7	-15.9
Shareholders' equity	178.1	176.6	177.3	161.4	186.1
Equity ratio	53.2%	47.8%	52.9%	51.0%	54.5%
Return on equity ROE	3.9%	4.7%	7.5%	3.8%	4.9%
Earnings per share (in CHF)	2.02	2.49	3.58	1.77	2.78
Share price at year end (in CHF)	46.20	43.00	65.35	52.50	46.00
Profit distribution per share (in CHF)	1.00 <sup>2)</sup>	1.00	1.50	1.00	1.80
Total shareholder return TSR	9.8%	-31.9%	26.4%	16.7%	-25.9%

<sup>1)</sup> Since 2017, the financial statements of Starrag Group have been prepared in accordance with the Swiss GAAP FER accounting standards. The 2016 figures have been adjusted accordingly. The key figures 2015 were prepared in accordance with International Financial Reporting Standards (IFRS) and some of them are only comparable to a limited extent.

<sup>2)</sup> Proposal of the Board of Directions to the Annual General Meeting on 25 April 2020 in the form of a reduction of the par value per registered share from CHF 8.50 to CHF 7.50.

## Financial calendar

- **25 April 2020** Annual General Meeting in Rorschach
- **23 July 2020** Half-year report 2020
- **29 January 2021** Sales and orders 2020
- **5 March 2021** Annual report 2020, Analysts and Media conference in Zurich
- **23 April 2021** Annual General Meeting in Rorschach

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# Imprint

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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)



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Starrag Group

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Berthiez  
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