

oerlikon

Annual Report **2018**

A photograph of a modern industrial factory floor. The scene is filled with rows of large, grey industrial machinery, likely part of a production line. In the foreground and middle ground, several blue pallets with yellow handles are visible, some of which are carrying long, silver metal rods. The floor is a polished, light-colored material that reflects the overhead lights. The ceiling features a complex network of pipes, ducts, and lighting fixtures, creating a sense of depth and scale. The overall atmosphere is one of a clean, well-maintained industrial environment.

2018 was a year we successfully executed our strategy and further transformed our portfolio.

We delivered excellent financial results and further invested in our growth.

We will continue to innovate to help customers succeed, invest in our future and deliver on our strategy.

2018 at a Glance

- 23.5 % increase in Group order intake year-over-year
- 26.2 % increase in Group sales year-over-year
- Maintained strong Group EBITDA margin after offsetting significant investment expenses in surface solutions and additive manufacturing businesses
- Steady growth in the surface solutions business: organically and through four technology-strengthening acquisitions
- Built a strong operational and R&D footprint in Europe and in the US to develop and grow additive manufacturing business
- Record top-line growth and double-digit operating profitability in the manmade fibers business
- Successfully closed sale of Drive Systems to Dana Incorporated on February 28, 2019
- Significantly improved Group net income (+62.3 % to CHF 245 million), driven by strong operating performance in all businesses
- Proposing a dividend payout of CHF 1.00 per share, including an extraordinary per-share dividend of CHF 0.65 as share of proceeds from the sale of drive systems

Order intake

2.7 billion

23.5 % above prior year

Sales

2.6 billion

26.2 % above prior year

EBITDA margin

15.6 %

At prior year's level

Net income

245 million

62.3 % above prior year

Operating cashflow¹

429 million

6.2 % above prior year

Net cash

398 million

20.2 % below prior year

Earnings per share

0.71

61.4 % above prior year

Dividend proposal

1.00

Including an extraordinary per-share dividend of CHF 0.65

¹ Before changes in net current assets.

All financial figures in CHF.

All financial figures except net cash in 2017 are restated and 2018 figures are reported with Drives Systems Segment as discontinued operations.

Leading Technology & Engineering Group

Oerlikon

Oerlikon engineers materials, equipment and surfaces to enable its customers' products to have high-performance properties, functions and an extended lifespan. The Group is committed to continually investing and delivering valued technologies, products and services for customers to meet challenges in their markets. For instance, Oerlikon's technologies enable the reduction of fuel usage in cars and airplanes, make tools more durable and save energy in the manufacturing of fibers and yarn.

A Swiss company with around 100 years of tradition, Oerlikon operates its business in two Segments – Surface Solutions and Manmade Fibers – following the divestment of the Drive Systems Segment. It has a global footprint of more than 10500 employees at 175 locations in 37 countries and generated sales of CHF 2.6 billion in 2018.

Sales by Segment



Surface Solutions Segment

A world-leading supplier of advanced materials and surface technologies. Over 80 years of know-how in advanced materials and surface solutions engineering for components and tools used in a wide range of industrial applications where superior materials and surface performance are required. Progressing from surface to structure, additive manufacturing was established as a business of the segment.

Manmade Fibers Segment

A world market leader for solutions and systems used to manufacture manmade fibers. Over 95 years of competence in enabling customers to produce high-quality synthetic fibers, which are processed into clothing, carpets, airbags, safety belts, hygiene products, industrial textiles and geotextiles. The segment also offers consulting, engineering, lifecycle management and smart (Industry 4.0-based) plant solutions.



Sales (in CHF)
1511 million

10.3% above prior year



EBITDA margin
18.6 %



Sales (in CHF)
1 098 million

57.3% above prior year



EBITDA margin
11.7 %

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Letter from the Chairman

Dear Shareholders

I am pleased to report that 2018 was a record year for Oerlikon. Our excellent results clearly show that we have the right strategy and also underline our ability to transform our portfolio and successfully turn our businesses around.

When I took on the position of Chairman of the Board of Directors in 2015, we were faced with the challenge of outlining a strategy that would enable Oerlikon to succeed in the medium and long term. At that time, Oerlikon was a conglomerate with a diversified portfolio, and certain businesses were experiencing highly cyclical market conditions. We took the decision to focus on areas where we have strong core competencies and attractive growth markets where we hold number 1 or number 2 positions.

The sale of the vacuum business in 2016 was a strategic step in the defined direction. In 2018, we reached the next significant milestone with the agreement to divest the Drive Systems Segment to Dana Incorporated, and we closed the sale in February 2019. Back in 2015, the drives business had too many product lines and its resources were spread across many markets. We streamlined the business, concentrating on profitable products and areas such as the hybrid and e-drive solutions. We optimized processes and restructured the segment to enable it to better manage the impact of cyclical markets. Our efforts paid off and the drives business was successfully repositioned. This was reflected in the strong performance the Drive Systems Segment delivered in 2018, which led to the sale of the business at a good enterprise and cash value of around CHF 600 million. The next step following these divestments is investment. We have been deploying – and will continue to deploy – cash and our healthy balance sheet to grow our business both organically and through targeted M&A.

The current market environment is rather volatile and uncertain, and marked by protectionist views and ongoing trade tension. Against such a background, we are exercising caution and carefully evaluating each opportunity. We closed six technology acquisitions in 2018. For example, we bought DiSanto Technology to open up for us the additive manufacturing medical market, while with AC-Automation, we can now offer our manmade fibers customers large-scale plant automation solutions. We

will continue to enhance our technology portfolio and market reach with further acquisitions. However, we will do so with care as it is our responsibility to secure value and get the best deal for Oerlikon to support its growth. This also means declining to execute potential transactions, which we did several times in 2018.

In 2018, we further invested in our structural growth and achieved 21.2% organic sales growth. Each year, we add at least two to three coating centers, while expanding several existing facilities to serve customers on their doorstep. This is also an important part of our defined strategy – our close proximity makes us more accessible and available to respond quickly to customers' needs. Currently, we have 175 sites globally, offering sales, key account management, equipment manufacturing, coating services and after-sales services.

Our R&D pipeline is filled for the next few years as we continue to invest at least 4% of our revenues in developing new and improved innovative solutions for customers. We launched a large number of new coating equipment, coatings, alloys and services in 2018. For our materials business, we now have the unique competency to very rapidly develop new alloys customized according to what our customers need. This is thanks to our Rapid Alloy Development (RAD) software algorithm, which enables us to develop and launch new alloys in weeks instead of months or years.

I am also proud to say that we are developing technologies that not only add value for customers, but also contribute to improving the environment. For instance, our physical vapor deposition (PVD) coatings and ePD (embedded PVD for Design parts) solutions are wear resistant protection technologies that are excellent eco-friendly chrome replacements. Our SUMEBore coatings for automotive engine cylinders are light, fuel-economical and compact solutions that can reduce oil consumption by up to 80%. It is a known fact that the production of manmade fibers has a much lower water footprint compared to growing and producing natural fibers. Furthermore, our manmade fibers technologies help customers save up to 30% of the energy used in production compared to conventional technologies.

Our goal is to stay ahead of the competition with innovation. We want to maintain our number one technology and market positions, and to reach number one if we are not there yet. We are currently spearheading multiple digitalization initiatives in the areas of automation, robotization and complete smart plant systems. We have also launched a digital hub in Munich, Germany, where a dedicated team will be spurring and boosting digital growth in Oerlikon by instilling digital thinking and inspiring new working methods, which will help raise efficiency and productivity in our daily work.

Another significant pillar of our strategy is additive manufacturing. Market adoption and industrialization of additive manufacturing has been slower than expected. However, our commitment to this business remains unchanged. We see this as a marathon rather than a sprint. The launching of a new business requires investment and commitment to reap benefits over the longer term. Through our investments over the past years, we now have a strong operational and production footprint in Europe and in the US, and have begun powder sales in China. We have also established top partnerships with major industry leaders such as Boeing, GE Additive and Lufthansa Technik, as well as academic institutions like the TU Munich, to collaborate on advancing the industrialization of additive manufacturing. All these position us excellently to lead and develop our additive manufacturing business in the aerospace and medical industries, which are markets at the forefront of additive manufacturing adoption, but also in other industries. We firmly believe in the potential of additive manufacturing and that this business will be one of the central pillars of Oerlikon's medium and long term future.

Our strategy has supported our growth over the past few years and provides us with a strong foundation to sustain future growth. We realize that the global economy is showing signs of slowing down. Certain markets, like automotive, are presently facing challenges. However, we have proven that we are able to achieve a higher sales growth rate in end markets compared to the market growth rate. In the automotive industry, for example, we achieved more than 5% growth compared to the industry's 3% growth rate over the past three years.

For our manmade fibers business, we delivered record-breaking results in 2018 with the upturn of the filament equipment market. Realistically, this market cannot continue to deliver double-digit growth over the long term. Having said that, we have succeeded in evening out our top-line growth with an order pipeline that extends into 2021. Furthermore, we have shown that we have effective measures in place. During the trough peri-

ods of the last cycle, we never once delivered negative annual results and always had a positive cash flow. Additionally, we have built up other business areas in this segment. For instance, we launched an Industry 4.0 digital solution for the textile industry, and are excited to soon be able to offer customers a groundbreaking fully networked smart plant solution with extended features.

The innovation and execution across our business would not be possible without the hard work of our employees. The results from our employee engagement survey in 2017 were very encouraging and gave us valuable insights, which were used as the basis for our 2018 HR initiatives. We launched a leadership development program, High Potential in Horizons, and ran further high-performance team workshops to facilitate increased engagement and performance among employees. We also initiated a Culture Change Champion program to drive cultural transformation and build a more collaborative culture as ONE Oerlikon. We firmly see these actions as cornerstones to develop and motivate our talented team of employees.

As announced, we intend to broaden the industrial experience on the Board with the nomination of an additional independent member of the Board for election at the upcoming 2019 Annual General Meeting of Shareholders. Pending shareholders' approval, the addition will increase the total number of independent Board members to four and expand strategic and operational experience on the Board to support our growth.

To conclude, I would like to personally thank our employees, our management team and my colleagues on the Board of Directors for their hard work and commitment. I would also like to express my gratitude to our partners and customers for their confidence in our solutions and technologies. And to you, our shareholders, I thank you for your unwavering support and am pleased to announce that the Board will be proposing to issue a dividend payout of CHF 1.00 per share, comprising an ordinary dividend consistent with the previous year of CHF 0.35 and an extraordinary dividend of CHF 0.65 as a share of proceeds from the sale of the drive systems business.

March 5, 2019

Best regards



Prof. Dr. Michael Süß
Chairman of the Board of Directors

“We have outlined a clear strategy that has led to our success in 2018. Our strategy provides us with a runway for growth and we will further execute on it to sustain our strong performance in the medium to long term.”

Prof. Dr. Michael Süß

Chairman of the Board of Directors



“We are pleased with our performance in 2018. While we recognize there are global challenges, we successfully completed a number of critical milestones this past year, resulting in a record year.”

Dr. Roland Fischer

Chief Executive Officer



Letter from the CEO

Dear Shareholders

2018 was a record year of exceptional performance for Oerlikon, exemplified by our strong top-line growth and operating profitability. The underlying success of our strategy drove revenue and the EBITDA margin in line with our full-year targets. We continued to execute our mission to become a global powerhouse in advanced materials, surface solutions and polymer processing, addressing our customers' needs and helping them resolve critical industry challenges and succeed in their businesses.

While we benefited from a strong macro-environment during the first half of 2018, increasing trade, political and economic concerns drove pressures in the global market toward the end of the year. However, we are pleased to have successfully navigated this environment as the demand for our technologies and services drove a substantial increase in sales over the previous year.

Reporting the sold drive systems business as discontinued operations, Oerlikon's sales improved by 26.2% to CHF 2.6 billion (2017: CHF 2.1 billion) in 2018, while orders increased by 23.5% to CHF 2.7 billion (2017: CHF 2.2 billion). Group sales in 2018 includes a positive currency impact of 1.7%. Group EBITDA was higher at CHF 406 million, corresponding to an operating profitability margin of 15.6% after absorbing operating expenses related to investments in our businesses. Net income for 2018 increased by 62.3% to CHF 245 million (2017: CHF 151 million) and earnings per share were CHF 0.71. Compared to 2017, results from continuing operations improved by 82.1% to CHF 173 million (2017: CHF 95 million). With an equity ratio of 44%, the Group's financial position remained strong in 2018. The Group's return on capital employed (ROCE) was 12.1%. Our net cash position at the end of the year amounted to CHF 398 million, and cash flow from operating activities before changes in net current assets was CHF 429 million. Our strong financial base enables us to further invest in our core strategic businesses and new technologies and to support our future growth.

Over the past year, we continued to execute our strategy, which is underscored by the impressive results across our business. We achieved a major milestone by signing

the agreement to divest the Drive Systems Segment to Dana Incorporated in 2018, and are pleased to have successfully closed the transaction on February 28, 2019. With this sale behind us, we will be investing further, primarily in our Surface Solutions Segment, including targeting acquisitions to strengthen our portfolio.

In 2018, the acquisitions of DIARC, Sucotec, DiSanto Technology and Eicker expanded our offering and presence in multiple markets and regions. For example, the DiSanto acquisition allowed Oerlikon to expand into the contract manufacturing market for additively produced medical components, particularly for orthopedic implants and instruments. The acquisition of DIARC is in line with Oerlikon Balzers' strategy to increase its foothold in the automotive industry and enhance its surface treatment portfolio, while also extending its geographic footprint in Finland. With Sucotec, Oerlikon Balzers expanded its offering with high-quality chemical vapor deposition systems for the tooling market. Finally, Oerlikon added innovative expertise in plasma nitriding to its portfolio – a heat treatment technology to increase the reliability and wear-resistance of metal parts. These acquisitions provide us with important advances in new technologies, allowing us to better address our customers' needs.

We also further strengthened our market-leading position in our Manmade Fibers Segment. In the first half of 2018, we completed the acquisition of AC-Automation, enabling the Segment to deliver additional large-scale plant automation solutions for customers in the textile industry. In 2018, we filed 87 patents and invested more than 4% of our total sales in R&D, reflecting our commitment to develop cutting-edge solutions for our customers.

In 2018, our surface solutions business delivered strong revenues of CHF 1.5 billion and an EBITDA margin of 18.6%. Performance in this business was driven by our end-market strengths in the aerospace, automotive and general industries. A noteworthy mention was the sale and on time delivery of our environmentally friendly ePD coating system, INUBIA I6, to Shanghai Dafangwuyu Automobile Company for chrome-like metallization of plastic parts. In our thermal spray business, we also succeeded to win new customers like Caterpillar and Moore's Industrial Service by bundling our materials, equipment and services into a total solution offering.

While we completed a number of acquisitions in 2018 to provide levers for additional growth, we also made good progress integrating our 2017 acquisitions, including Scoperta, DiaPac and Primateria. In 2018, we conducted an integration pulse check with employees from six of our acquisitions and received constructive feedback.

Importantly, in 2018, we continued our innovative work in additive manufacturing. We increased our traction for additive manufacturing services in the aerospace industry as evidenced by the five-year deal signed with Boeing to develop standard materials and processes for metal-based additive manufacturing, the collaboration with RUAG to qualify and accelerate series production of 3D-printed space components, and the agreement with Lufthansa Technik to establish replicable processes and standards for maintenance, repair and overhaul applications. Additionally, Oerlikon secured long-term agreements with large customers for additive manufacturing materials, representing a shift from transactional sales to contractual relationships with key customers. To further promote collaboration in additive manufacturing, Oerlikon hosted a second successful Munich Technology Conference with over 1 000 participants, including world-renowned decision makers and industry leaders.

Our global footprint continued to expand in 2018, highlighted by the 13 additional production and service sites in close proximity to our customers. For example, a large coating center in Bielefeld, Germany, for machining, forming and plastics processing, an advanced materials production center in Plymouth Township, Michigan, USA, a new coating center in Manesar, India, and a new coating center in Johor, Malaysia, to better serve customers in the respective regions.

We also launched a number of innovative new technologies. SurfaceOne, a highly compact thermal spray coating system with an intuitive and customizable user interface, was officially introduced to the market. SurfaceOne was recognized with the Red Dot Design Award and the International Design Excellence Award for its exceptional build and capability. Our INNOVENTA family was completed with the launch of the INNOVENTA mega and INNOVENTA kila coating machines, which provide the ideal platform to process large-sized metal-forming tools, die casting molds and saw blades.

2018 was a record year for our manmade fibers business. We increased orders and sales substantially by 44.8% and by 57.3% respectively, and also improved the EBITDA margin to 11.7%. The growth reflects healthy market demand in filament equipment, primarily in China, as well as notable contributions from India and Turkey. Growth was also supported by strong demand for texturing equipment, mainly in China, and an increase in sales for carpet yarn, primarily in the U.S. The magnitude of orders in 2018 has resulted in a robust pipeline, with project lead times reaching into 2021, ensuring our ability to sustain our top-line development at a high level over the next few years.

During the year, we divested our tape and monofilament business to the Starlinger Group to allow us to focus on our filament, staple fiber and nonwoven businesses. Following this strategy, we are partnering with Shaoyang Textile Machinery to jointly advance sales of our nonwoven solutions in the highly attractive hygiene market, also outside of China. In 2018, we introduced the new Staple FORCE S 1100 – an easily configurable plant that spins, draws, crimps, cuts and bales in a single process step, using a highly user-friendly process control system.

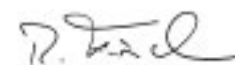
We are pleased with our performance in 2018, and look toward delivering good results in 2019. While we recognize there are global challenges, the prospects in our end markets remain attractive. We completed a number of critical milestones this past year, leaving us well-positioned to continue executing our strategy. We expect our surface solutions business to continue growing at 4–6% annually and our manmade fibers business to sustain its top line development over the next few years. We will continue to invest significantly in our future and thus, in 2019, we expect the Group's order intake and sales to each exceed CHF 2.7 billion and EBITDA margin, after operating expenses from investments, to exceed 16%.

In 2019, we will continue to drive our organic structural growth through further market-leading innovations, better alignment with customer needs, footprint expansion and digitalization initiatives. We look forward to further creating value for our customers with our unique, leading technologies, and maintaining profitable growth across our business.

In closing, I would like to personally thank our employees for their hard work and dedication, our partners and customers for their trust in our technologies and services, and finally, our shareholders for your continued support of Oerlikon.

March 5, 2019

Best regards



Dr. Roland Fischer
Chief Executive Officer

Serving more than 30000 customers in 37 countries with the widest portfolio of advanced materials, surface technologies, coating equipment and services.



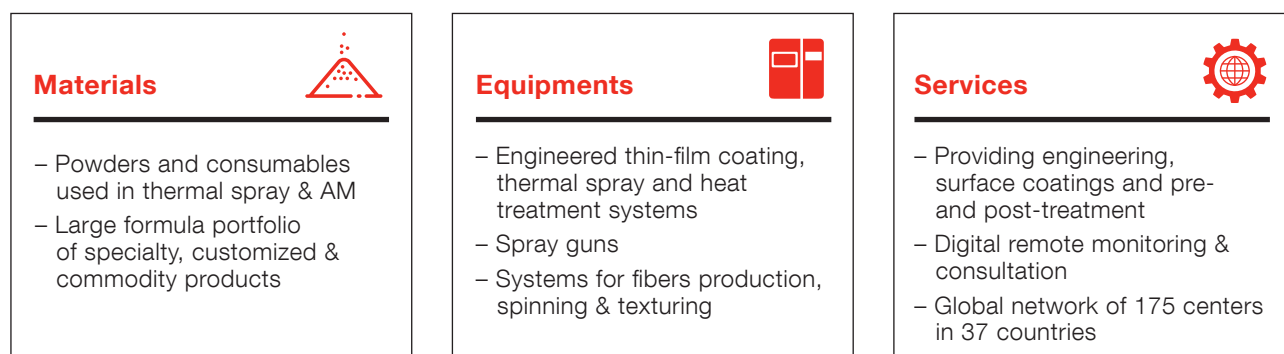
Oerlikon Value Proposition

Oerlikon's Investment Proposition

Oerlikon offers an attractive investment proposition as a market leader in advanced materials, surface solutions and materials processing. Serving over 30000 customers including OEMs and tier 1 clients in attractive end markets, Oerlikon has a diversified industry exposure, a dedicated business model and a proven record of delivering stronger performance than the average market growth rate. The Group's proven innovation and technology leadership is supported by strong R&D teams at 41 sites and through more than 50 partnerships. In addition, Oerlikon's client-facing model and global network of production and service centers facilitate the deepening of well-established relationships with customers.



Our Business Model



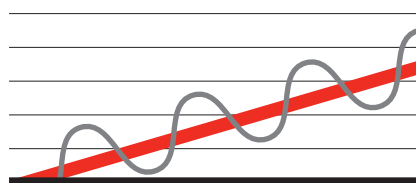
¹ excl. investments in AM

Mid-Term Growth Strategy

Oerlikon draws on its broad and versatile portfolio of advanced materials, surface technologies, processing equipment and services, as well as its global footprint to further develop its business and sustain mid-term growth. To propel its profitable growth, the Group focuses on three key growth drivers: addressing growth markets and industries, securing structural growth and expanding through targeted M&A.

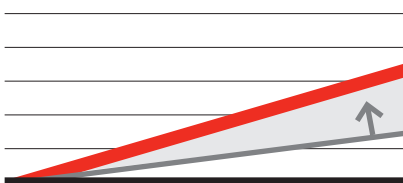
THREE KEY DRIVERS OF PROFITABLE GROWTH

1 End market exposure to cyclical but growing markets



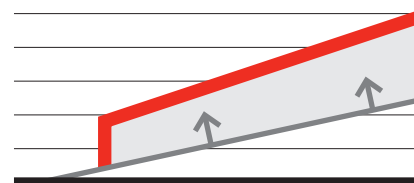
Mid-term market growth
Addressing growth markets and industries

2 Oerlikon has the ability to outgrow end market trends



A structural growth company
Securing steady growth as a structural growth company

3 Supporting structural growth with acquisitions



M&A Opportunities
Expanding through targeted M&A

SECURING STRUCTURAL GROWTH

Align solutions to customer & market needs

- Build a stronger client-facing structure in industries
- Create a more integrated sales and management structure
- Increase key account management
- Increase top-selling

Expand technology leadership

- Filled innovation pipeline for materials, equipment and coating solutions
- Invest 4 % of revenue in R&D annually
- File 80–100 new patents annually to expand our suite of intellectual property

Strengthen foothold in regions

- Global footprint of 175 sites in 37 countries to serve customers in close proximity
- Continue strengthening business development in 8 target countries
- Open two to three new coating centers per year

Value chain expansion

- Add pre- and post-treatment and consulting services
- Rox regrinding – added re-coating of tools as new business
- Polycondensation for manmade fibers business (same equipment, process and system used for textile fibers was repurposed for producing pellets used to manufacture PET bottles)

Improve operational excellence

- Automation, robotization and other smart manufacturing and Industry 4.0 initiatives at production sites to increase efficiency and productivity
- Digitalization initiatives such as digital hub and smart sensors
- Improve supply chain management

Surface Solutions

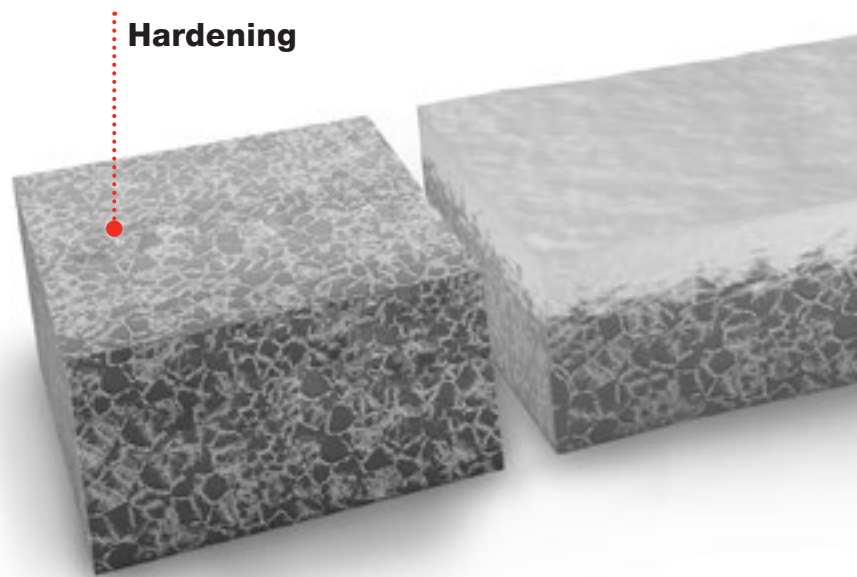
Oerlikon's Surface Solutions Segment offers advanced surface technologies to a wide spectrum of industries through three competence brands – Oerlikon Balzers, Oerlikon Metco and Oerlikon AM.

Combining the strengths of Oerlikon Balzers and Oerlikon Metco, Oerlikon delivers pioneering and innovative thin-film and thermal spray technologies, advanced surface treatments and outstanding services to customers via its global network of service centers.

Oerlikon thin-film coatings can be 50x thinner than a human hair and include complex engineered solutions such as plasma nitriding, physical vapor depositions (PVD), plasma-assisted chemical vapor depositions (PACVD), chemical vapor depositions (CVD) - all of which are used for tools and precision components - and embedded PVD for Design parts (ePD), an eco-friendly decorative coating solution.

Oerlikon's innovative proprietary S3p is the only technology available that combines the advantages of arc evaporation and sputtering (HiPIMS) to enable smooth and

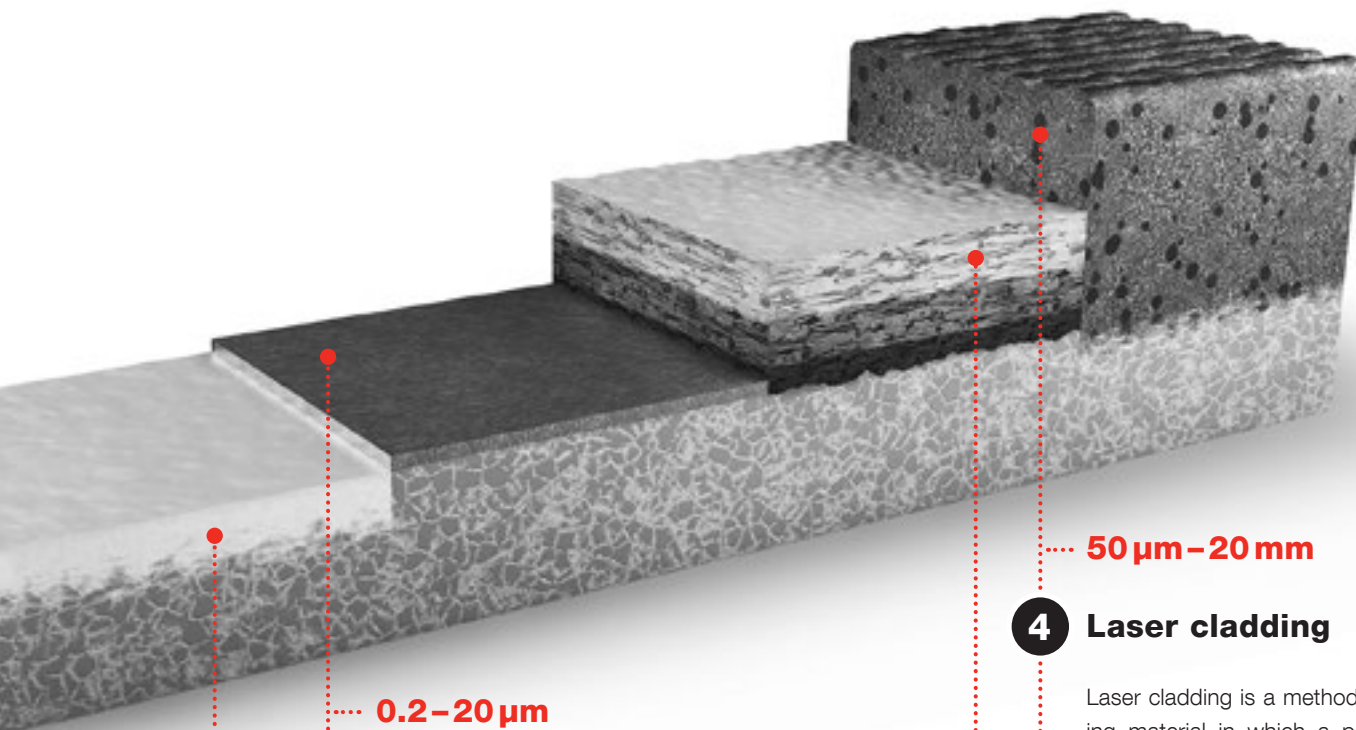
very high coating density and hardness as well as excellent adhesion to the underlying surfaces. Oerlikon's thermal spray expertise covers thicker layer coatings and laser cladding solutions, which are needed to withstand harsh heat and environmental conditions like in a jet engine.



Customers Benefit from 20+ Different Surface Properties

Surface solutions enhance the quality, performance and lifespan of customers' tools and components. This in turn improves productivity, saves cost and is more environmentally friendly than conventional methods.

- corrosion protection
- environmental protection
- strength
- abrasion protection
- thermal protection
- hardness
- chemical stability
- conduction control
- permeability control
- clearance control
- anti-reflection
- anti-sticking
- color flexibility
- decorative enhancement
- thermal stability
- easy cleaning
- wear resistance
- antibacterial
- bio-compatibility
- magnetism control
- insulation control
- erosion protection



10–500 μm

1 Nitriding

Nitriding involves ionizing a nitrogen-hydrogen gas mixture in a vacuum. Plasma nitriding (also known as ion nitriding) is a thermochemical heat treatment process used for increasing the reliability, wear-resistance and fatigue limit by increasing the surface hardness. Plasma nitriding is a more environmentally friendly process compared to conventional methods since no toxic substances are applied.

0.2–20 μm

2 PVD and PACVD/CVD

PVD is a vacuum deposition method, where a highly pure, solid coating material goes from a condensed state to vapor and then back to a thin-film condensed state. Highpower impulse magnetron sputtering (HIPIMS) is a PVD method that ejects materials with sputtering to create high-density film deposits. Arc-PVD is a technology in which an electric arc is used to vaporize materials, which then condense to form a thin film.

PACVD and CVD are processes used to deposit thin films from a gas state (vapor) to a solid state on a substrate. Chemical reactions are involved in the process, which occur after the creation of a plasma of the reacting gases.

50 μm –20 mm

4 Laser cladding

Laser cladding is a method of depositing material in which a powdered or wire feedstock material is melted and consolidated by use of a laser (instead of an arc) in order to coat part of a substrate. It deposits a substrate material, known as a clad, which serves as a support material for repairs, wear prevention and corrosion resistance.

20 μm –2 mm

3 Thermal Spray

Powder or wire is melted at high temperatures and the materials are then sprayed onto a surface. The feedstock material (coating precursor) is heated by electrical (plasma or arc) or chemical means (combustion flame). Thermal spraying can provide thick coatings as compared to other coating methods.

Manmade Fibers

35 000 000

tons of manmade fibers are produced on Oerlikon machines each year

88%

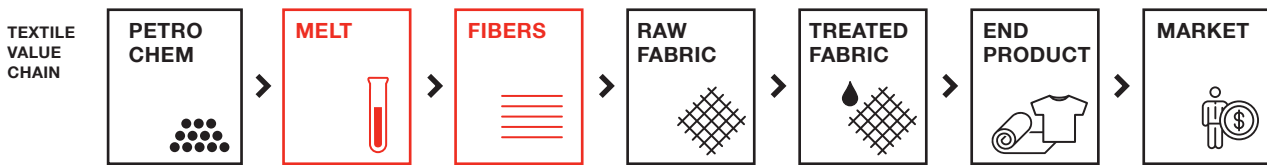
22 out of world's 25 largest manmade fibers producers trust in Oerlikon solutions

OERLIKON

Oerlikon's technologies ensures the highest quality of all textile products at this early stage in the textile value chain.

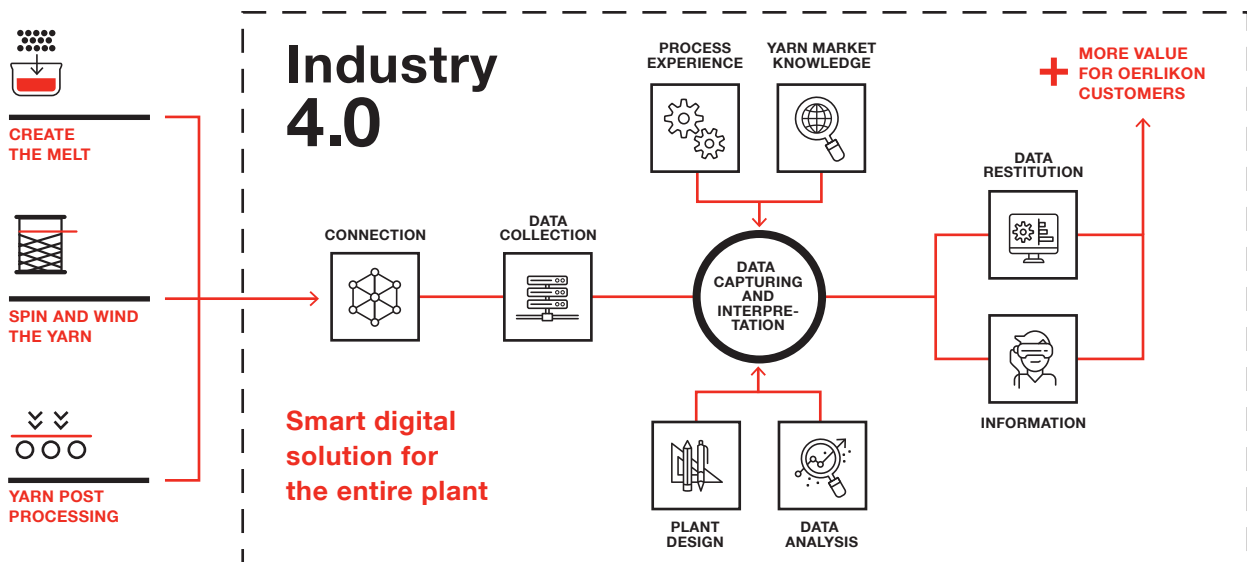
Full-service plant solutions from melt to fibers, yarns and nonwovens

Oerlikon's Manmade Fibers Segment offers customers perfectly coordinated technologies and processes as full-service plant solutions, covering the entire production process – from the monomer all the way through to the textured yarn. The product range includes continuous polycondensation systems, extrusion lines and their key components. As the Partner for Performance, the segment goes the extra mile to ensure the highest quality of customers' products, manufactured in a closed production chain, tailored to requirements that have been designed, installed and maintained in house.



Create more value for our customers with Industry 4.0 solutions

The Segment's R&D goals have been focused on producing energy-efficiency, space saving and sustainable technologies. As a future-oriented business, the Segment has a Plant Operation Center solution, which is an all-embracing workflow management system designed to detect and optimize the production processes within a single production stage, such as spinning or texturing, and for the entire production stages – starting with the raw material up to the end product. The Segment recently launched its next digital groundbreaking solution – its data center in a box – a powerful, flexible and secure IT infrastructure solution for the textile industry of the future.

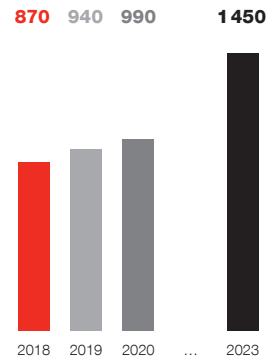


Oerlikon Key Markets

MAKING AEROSPACE SAFER, MORE POWERFUL
AND MORE EFFICIENT

Aerospace

The commercial aerospace market grew 4.5% in 2018, compared to the 2.1% in 2017 according to the Accenture Commercial Aerospace Insight Report. Boeing projects that in the next 20 years, 43000 commercial airplanes will be needed to meet global demand. With real GDP growth for emerging markets reaching 4.7% in 2018, the industry is poised for growth as populations gain more opportunity for travel. In IATA's report, passenger growth by revenue passenger kilometer increased 6.5% in 2018, confirming the continuing upward trend in commercial travels. In addition to commercial aerospace, increasing non-commercial aerospace budgets globally will also enable growth in this sector.



Targeted market size¹
in CHF million

¹ Oerlikon estimates.



14% of FY 2018
Surface Solutions
revenue



Industry-expected
CAGR 2019–2023²
7%

USP

Oerlikon covers all coating needs of the industry – from powder development and application engineering to equipment, services and process know-how.

² These are projected industry growth rates from sources including company reports, Bloomberg, Thomson Reuters, McKinsey and others.

Needs

Clients need to increase turbine efficiency while at the same time reducing their service intensity.



Solutions

Oerlikon delivers materials and equipment for thermal spray and provides thin-film coating services.



Achievement

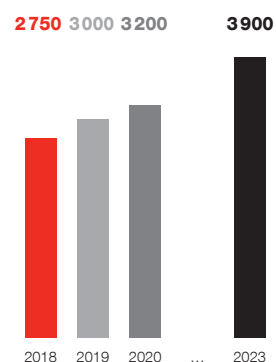
Coatings increase the overall efficiency in engines and improve safety by up to 5%.

+5%
overall efficiency

ENABLING SHARPER, STRONGER AND MORE DURABLE TOOLS

General Industries and Tooling

The Gardner Metalworking Business Index, an important proxy for the global tooling market, reached an all-time high in February of 2018, supporting the positive development in this market in 2018. According to the Global Tooling Market 2017-2021 report, this market is expected to grow at a CAGR of around 6% over this period. For general industries, an annual growth of 3.4% in 2018-2020 is expected. Oerlikon's technology adds value to almost any industry in helping to extend the lifespan of tools and components.



Targeted market size¹
in CHF million

¹Oerlikon estimates



53% of FY 2018
Surface Solutions
revenue



Industry expected
CAGR 2019–2023²
~3.4%

USP

Technological and market leadership with global availability of solutions enable unique full service performance in terms of quality, process stability, delivery time and consistency.

Needs

Clients need to increase tool efficiency while at the same time extend replacement cycles.



Solutions

Oerlikon provides coating services and equipment via a global network to leading tool manufacturers.



Achievements

Coatings extend the lifetime of tools up to 67%.

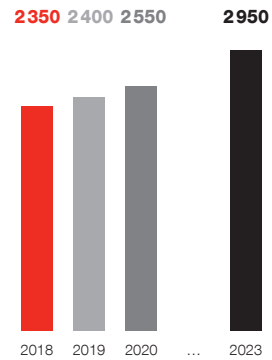
+67%
tool lifetime extension

²These are projected industry growth rates from sources including company reports, Bloomberg, Thomson Reuters, McKinsey and others.

ADVANCING PRODUCTIVITY, SUSTAINABILITY AND PROFITABILITY IN THE INDUSTRY

Automotive Industry

According to statista, worldwide automotive sales in 2018 was around 81 million units, a 2.5% increase from 2017. Recent profit warnings from leading carmakers suggest that the sector will face greater risk in 2019, also due to rising tariffs and commodity prices. According to a report released by Moody's Investor Service, the global automotive manufacturing industry will remain stable over the next 12 to 18 months, reflecting expectations for steady demand across key regions despite looming challenges. Manufacturers will continue to face mounting environmental policy pressures, stricter emissions-reducing regulatory targets, rising pressure on margins and changing consumer preferences. All these, in turn, will need technological solutions and Oerlikon is well positioned to capitalize on this growth opportunity.



Targeted market size¹
in CHF million

¹Oerlikon estimates.



28% of FY 2018
Surface Solutions
revenue



Industry-expected
CAGR 2019–2023²
~2%

USP

Innovative standard and custom-designed solutions combined with global presence enable reliable operational performance to address our automotive customers' needs.

²These are projected industry growth rates from sources including company reports, Bloomberg, Thomson Reuters, McKinsey and others.

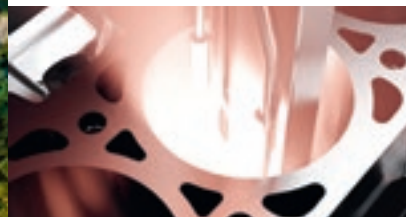
Needs

Clients need to increase fuel efficiency of engines due to emission regulations.



Solutions

Oerlikon provides PVD solutions for piston pins, SUMEBore thermal spray coatings for cylinder walls and heat treatment and eSync/S³ solutions for hybrid cars.



Achievements

Reduction of fuel consumption by 2–4%.

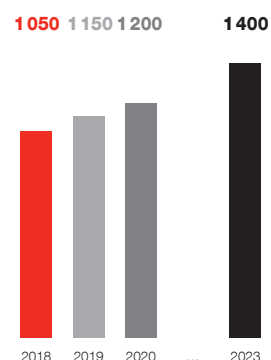
2–4%

less fuel consumption

EMPOWERING THE WAY TO EFFECTIVELY GENERATE ENERGY

Energy

As global demand for energy increases due to improved infrastructure, economic development and a growing population, more and more solutions will be required to fill the need for power. Global oil supply remained steady amid output changes from OPEC's largest contributor, Saudi Arabia, but supported by increased oil exploration in the U.S. and Canada. According to the BP Energy Outlook 2018, the makeup of total energy is predicted to shift as oil and coal use decreases and renewables make up over 20% of total power generation by 2040. The fundamental drivers such as emerging policies, expanding investor interest and advancing technologies are supporting this growth for renewables. Oerlikon offers solutions to meet the needs of the ever-changing energy landscape.



Targeted market size¹
in CHF million

¹ Oerlikon estimates.



5% of FY 2018
Surface Solutions
revenue



Industry-expected
CAGR 2019–2023²
3%

USP

Oerlikon offers reliable high-end materials, equipment and surface coatings for power generation and holds a unique, strong market position for gas turbine components.

Needs

Clients need to improve turbine efficiency while increasing time between overhaul and reducing emissions.



Solutions

Oerlikon delivers materials, equipment and services for thermal spray and provides thin-film coating services.



Achievements

An overall efficiency increase of 2% at a 530 megawatt (MW) gas turbine.

2%

overall efficiency increase

² These are projected industry growth rates from sources including company reports, Bloomberg, Thomson Reuters, McKinsey and others.

ENERGY-EFFICIENT AND SUSTAINABLE TECHNOLOGIES FOR THE ENTIRE PRODUCTION PROCESS

Apparel & Industrial Textiles

According to the textile book “The Fiber Year 2018”, the world fiber market saw renewed growth after reaching an all-time high of 103 million tons, an increase of 4%, in 2018. This increase is a welcome signal for growth after four consecutive years of slowing growth rates in the market. The manmade fibers market is expected to continue growing faster than the natural fibers market, driven by population and industrial growth. With manmade fibers comprising 69% of the global market, Oerlikon technologies can meet the needs of the growing industry, serving a very broad range of applications, ranging from apparel, home textiles and hygiene products to geotextiles and industrial textiles.

3050 3000 3150 3150



Targeted market size¹
in CHF million

¹ Oerlikon estimates.



100% of FY 2018
Manmade Fibers
revenue



Industry-expected
CAGR 2019 – 2023²
~0.9%

USP

Oerlikon offers innovative and market-leading technologies for the entire production process – from melt to yarn, fibers and nonwovens – from a single source.

² These are projected industry growth rates from sources including company reports, Bloomberg, Thomson Reuters, McKinsey and others.



Needs

Clients need to improve quality and increase efficiency in production while reducing labor and maintenance costs.

Solutions

Oerlikon's optimally designed equipment supports the balance between cost reduction, production efficiency and consistent quality while enabling the reduction of energy consumption and a smaller equipment footprint.

Achievements

Energy savings of up to 30% in manmade fibers production is achieved compared to competing systems.



30%
energy savings

Geographical Regions

In its World Economic Outlook report, the International Monetary Fund noted that although global economic growth may have plateaued, it remains on much more solid footing today versus earlier in the decade, and expects global GDP growth to reach 3.7% in 2019 despite geopolitical tensions, trade disputes and rising interest rates. While Oerlikon is aware of potential risks and headwinds in the global economy, the Group is optimistic that its

leading technologies and solutions, global footprint and strong market positions will enable it to continue delivering growth, particularly in its surface solutions business. In 2018, Oerlikon successfully increased business globally and in the countries in which it operates. Oerlikon is currently focusing on strengthening its business in eight countries.

China

Despite weaker credit growth and ongoing trade and tariff tensions with the U.S., China has a high GDP growth rate (2018: 6.6%) and will remain a global economic heavyweight. As the world's largest motor vehicle production country since 2009, China is a key growth market for Oerlikon's automotive and tooling solutions. In 2018, Shanghai Dafangwuyu Automobile Company became the first company in China to buy an Oerlikon Balzers INUBIA I6, a fully integrated and automated coating system that enables high-end metallic coatings on plastic parts. In 2018, Oerlikon Metco won several deals in China to deliver abrasion coatings for steam turbines. As China shifts to increase the development of cleaner power generation technologies, its energy market offers attractive business potential. Generating 55% of the Manmade Fibers Segment's 2018 revenue, China was the primary contributor to boosting the segment's orders and sales for filament equipment. Leveraging its technology leadership position, the segment has successfully filled an order pipeline with delivery times extending into 2021. In order to penetrate the hygiene market, the segment is partnering with Shaoyang Textile Machinery in China. Furthermore, the segment has inaugurated an R&D center in Suzhou to advance innovation for texturing machines with the focus on automation, digitalization, energy conservation and process quality improvements. Oerlikon also took steps to establish a foothold in China's additive manufacturing business, for instance by cooperating with Farsoon Technologies to supply qualified metal-based additive powders.

India

India's GDP expanded 7.3% in 2018, supported by its fast-growing manufacturing and services sectors. Against this backdrop, Oerlikon is investing in this growth market. In 2018, Oerlikon Balzers opened in Manesar its largest production facility in the region for tool manufacturers. Oerlikon also successfully set up an in-house coating center in Ahmedabad with GE India to provide abrasion coatings for power generation. India is an attractive market for Oerlikon's manmade fibers business and the segment saw strong demand for production systems for polyester filament, texturing and staple fibers in 2018. Two key players – Filatex, a leader in polypropylene yarn production, and Wellknown Polyesters – intend to further expand their capacities, which will boost the demand for manmade fibers solutions.

Japan

Despite downside economic risks such as a planned consumption tax increase in 2019, growth is expected to remain relatively healthy (2018: 0.9%) as Japan focuses on export growth, private investment and increased consumption. With one of the largest automotive industries in the world, Japan remains a highly attractive market for Oerlikon's automotive and tooling solutions. In 2018, the Surface Solutions Segment reported strong demand from automotive customers for its physical vapor deposition coatings and nitriding solutions as well as a higher level of sales and orders in the tooling market in Japan. The newly inaugurated plant in Nagoya is equipped with the latest coating technologies, services and infrastructure for surface coatings of cutting and large forming tools used in car manufacturing. This plant will not only serve the needs of one of the largest Japanese automotive manufacturers as a customer but also cater to the increasing demand from other existing and new automotive customers. Other highlights in 2018 in Japan included Oerlikon Metco developing a proprietary powder specifically for Mitsubishi Hitachi Power Systems for its turbine blades, and its collaboration with Tokyo Metropolitan University to define ceramic coating measurement methods for semiconductor parts and other technologies.



South Korea

South Korea's GDP expanded 2.8% in 2018. The country is the world's sixth-largest motor vehicle production country and its export growth is mainly driven by machinery and transport equipment, providing ample business opportunities for Oerlikon solutions for the automotive, tooling and semiconductor industries. The Surface Solutions Segment further strengthened its business in 2018 in South Korea with a new partnership with ELTC Co., Ltd. for MetcoClad powders for laser cladding applications and is also collaborating with Eutectic Korea for powder development used in hardfacing applications. The segment also entered into a joint venture with CY Myutec – an automotive parts company in South Korea – to further develop this market, particularly for friction systems applications. The long-standing good relationship with the country and commitment to innovation was rewarded when Oerlikon Balzers' Korean office received the Investors of the Quarter award from the Ministry of Trade, Industry and Energy.

France

France experienced robust economic recovery as private investment and net exports saw strong growth amid an improving business climate. The near-term outlook in the country remains positive as the government undertakes action to rectify structural unemployment and geopolitical risks. In 2018, Oerlikon Balzers obtained Airbus certification for a site in France to supply coatings that meet Airbus' stringent technical and industrial requirements. This qualified supplier status from Airbus is for copper alloy substrate coatings based on BALINIT C. BALINIT C is applied to aerospace components made of steel, titanium and various alloys to help reduce surface fatigue, withstand wear and high loads, while being lightweight and exhibiting low friction. In addition to aerospace, Oerlikon also sees opportunities from the expected growth of France's advanced manufacturing market over the next five years.

Germany

Germany has seen sustained economic expansion in recent years and its GDP grew 1.5% in 2018. Germany's automotive industry is a major contributor to the German economy and an important market for Oerlikon's automotive business. A success in 2018 in this market was Oerlikon Metco securing several projects with a leading German car manufacturer for its SUMEBore technology to help improve engines' performance while reducing emissions. Germany's large and stable mechanical engineering industry also provides growth opportunities for Oerlikon's tooling business. A highlight in 2018 was Oerlikon Balzers' opening of Europe's largest coating center for tools in Bielefeld to cater to increasing demand. For Oerlikon's additive manufacturing business, an important partnership was signed with Lufthansa Technik to jointly develop additive manufacturing components for aerospace. Furthermore, the 2nd Munich Technology Conference on Additive Manufacturing provided more than 1000 decision-makers and leaders from industry, academia and politics ample opportunities for fruitful exchanges. Within the framework

of the Bayern Digital masterplan, Oerlikon is establishing a digital hub in Munich to foster further digitalization initiatives. The lab will be developed in a startup-like environment to ensure new ways of thinking, next-generation practice and cross-company collaboration. The Manmade Fibers Segment acquired Germany-based AC-Automation in 2018 to expand its offering of large-scale plant automation solutions for textile and packaging customers. It also took over the technologies from PE Polymer Engineering Plant Construction, Thuringia, to broaden its product range in melt preparation of polymers and to enter the high-end markets for engineering plastics and film packaging.

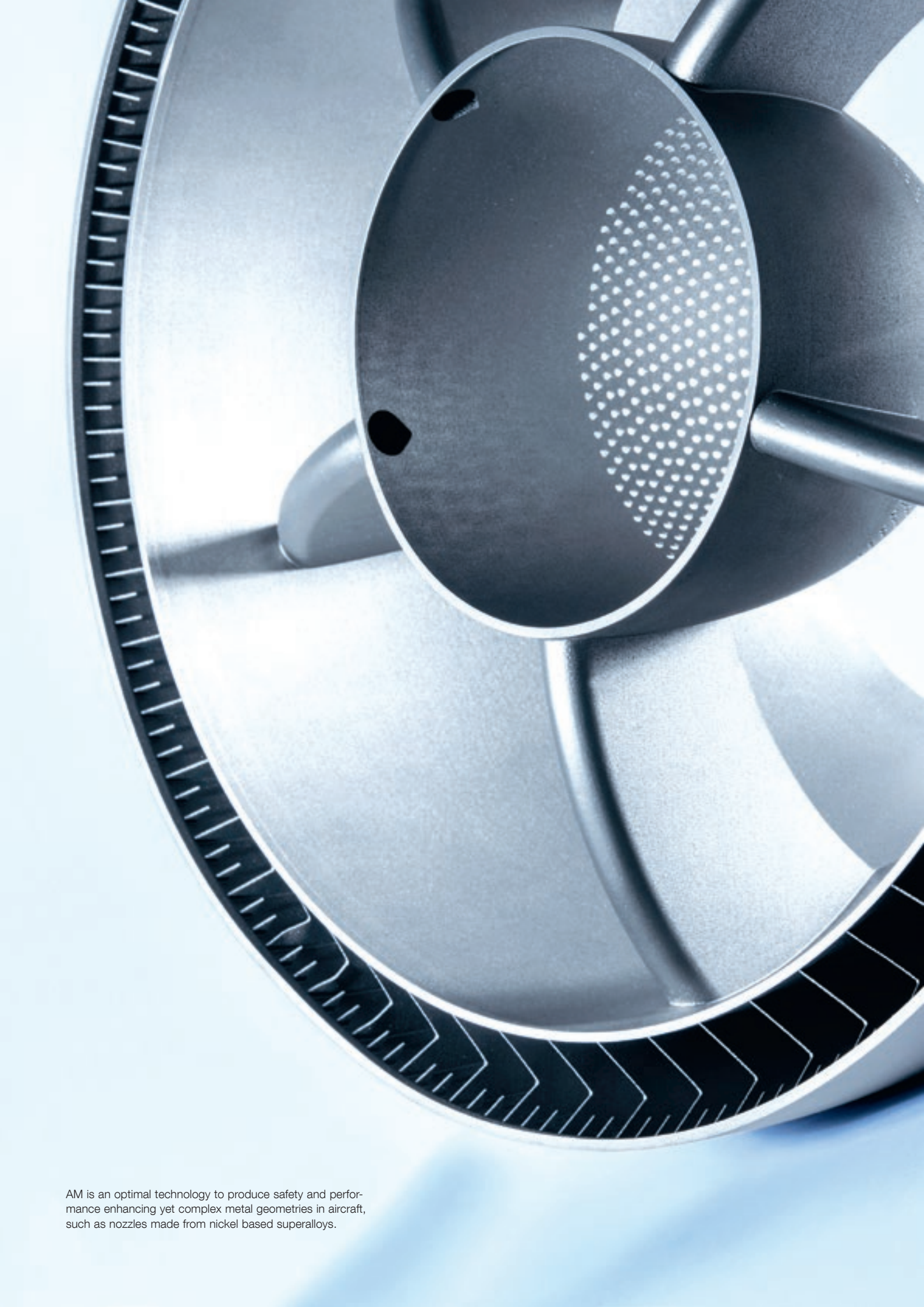
Russia

In 2018, Russia's GDP expanded 1.7%. Russia's economy has improved competitively, although economic risks such as geopolitical tensions and the possibility of lower oil prices remain a strain on the economy. With approximately 70% of its GDP tied to oil, Russia offers potential business opportunities in the oil and gas industry. In 2017, Oerlikon signed a research partnership with the Skolkovo Institute of Science and Technology to advance the industrialization of additive manufacturing. This partnership was further developed in 2018.

USA

The U.S. is experiencing robust economic growth, with GDP reaching 2.9% in 2018. The U.S. aerospace and defense industry is expected to grow 4.1% annually from 2018 to 2023 and brings new business opportunities for surface solutions and additive manufacturing. In May 2018, Oerlikon and Boeing announced a five-year collaboration agreement to develop standard materials and processes for metal-based additive manufacturing. Oerlikon acquired DiSanto Technology in Shelton, Connecticut, to enter the medical component manufacturing market for its additive manufacturing solutions. In 2018, Oerlikon started operations at its new powder production facility in Plymouth Township, Michigan, to produce high-quality metal powders for surface coatings and additive manufacturing. The oil and gas industry is recovering with the increase in demand and drilling activity. To offer customers an integrated solution of products, services and application support, Oerlikon Metco is setting up an oil & gas hub in Houston, Texas. As part of its integrated solutions strategy, Oerlikon Metco has also newly launched its Total Solutions Offering and has scored initial successes, for instance with Caterpillar, a leading U.S. construction equipment manufacturer. The U.S. is also an important market for Oerlikon's carpet yarn business, which saw very strong growth in 2018.

Business Report



AM is an optimal technology to produce safety and performance enhancing yet complex metal geometries in aircraft, such as nozzles made from nickel based superalloys.

Group Business Review

Oerlikon delivered impressive results in 2018, exemplified by double-digit top-line growth and strong operating profitability in both of its Segments: Surface Solutions and Manmade Fibers. With the divestment of the Drive Systems Segment to Dana Incorporated, this business was reported as discontinued operations in 2018. Despite increasingly complex trade, regulatory and geopolitical conditions during the latter half of 2018, Oerlikon successfully navigated the environment and capitalized on sustained demand in its industrial and regional markets. These results underscore the strength of the company's initiatives to drive future growth.

Reflecting the progress of its strategy and ability to generate results, the Oerlikon Group's order intake increased by 23.5% in 2018 to CHF 2731 million (including a positive currency impact of 1.7%) compared with CHF 2211 million in 2017, while order backlog increased by 20.2% to CHF 596 million at year-end 2018 versus CHF 496 million at year-end 2017. Group sales grew 26.2% in 2018 to CHF 2609 million (including a positive currency impact of 1.7%) from CHF 2068 million in 2017. The ratio of Group service sales to total Group sales was 38.1% in 2018 versus 44.8% in 2017.

The Oerlikon Group achieved strong year-on-year growth in operating profitability in 2018, as measured by both EBITDA and EBIT. Group EBITDA increased 26.1% to CHF 406 million, yielding a margin of 15.6%. This compares to Group EBITDA of CHF 322 million and a margin of 15.6% in 2017. Group EBIT stood at CHF 243 million, or 9.3% of sales in 2018 while in 2017 EBIT was CHF 168 million, or 8.1% of sales.

The Oerlikon Group was solidly profitable in 2018, with income from continuing operations of CHF 173 million, compared with CHF 95 million in 2017, an increase of 82.1%. After including net results of discontinued operations of CHF 73 million in 2018, net income totaled CHF 245 million in 2018, or earnings per share of CHF 0.71, versus CHF 151 million or earnings per share of CHF 0.44 in 2017. The tax expense for 2018 was CHF 68 million, while in 2017, it was CHF 64 million.

Cash flow from operating activities before changes in net current assets increased 6.2% to CHF 429 million in

2018, compared with CHF 404 million in 2017. The Group's return on capital employed (ROCE) was 12.1% in 2018. In 2017, the reported ROCE figure of 8.2% includes the drive systems business.

Surface Solutions Segment

The Surface Solutions Segment remained the largest contributor to Oerlikon's sales and profits in 2018, representing 58% of total Group sales and 70% of total Group EBITDA. The strong performance of this segment during 2018 further validates the effectiveness of Oerlikon's strategy to become a global leader in advanced materials, surface solutions and materials processing.

The segment's order intake increased 11.5% in 2018 to CHF 1574 million compared to CHF 1412 million in 2017. Order backlog climbed 55.6% to CHF 193 million from CHF 124 million in 2017. The segment's sales increased 10.3% in 2018 to CHF 1511 million from CHF 1370 million in 2017. Sales growth was seen in all regions and across industries, and particularly notable in aerospace and general industries, as well as in the U.S.

The Surface Solutions Segment achieved an EBITDA margin of 18.6% in 2018 compared to 20.1% in 2017. The EBITDA margin is lower year-over-year due to significant operating expenses for investments in future growth businesses, such as additive manufacturing and ePD. EBITDA for the segment totaled CHF 283 million in 2018, a slight increase from CHF 276 million in 2017. The EBIT stood at CHF 144 million in 2018, or 9.5% of sales, while EBIT was CHF 149 million in 2017, or 10.8% of sales.

The Segment continued to enhance its market portfolio and expand into new technologies in 2018 with the execution of four strategic acquisitions. These acquisitions included DIARC Technology, to increase Oerlikon Balzer's surface treatment product offering and expand its geographical footprint into Finland; DiSanto Technology, to provide the Group's additive manufacturing business access to the new sector of medical component manufacturing; Sucotec, to add CVD technology capability for the tooling market; and Eicker, to further strengthen the Groups position as a key supplier of nitriding solutions for the automotive industry.



Oerlikon provides customers highly qualified surface solutions equipment and services at over 160 production sites in 37 countries.

In 2018, Oerlikon further strengthened its operational and production footprint in Europe and in the U.S. for its additive manufacturing business. It has also begun additive manufacturing powder sales in China. Additionally, it entered new partnerships with industry leaders, including Boeing, RUAG Space and Lufthansa Technik to advance the industrialization of additive manufacturing. Oerlikon has also started developing advanced materials such as superalloy powders for 3D printing at its new state-of-the-art facility in Plymouth, Michigan.

Manmade Fibers Segment

The Manmade Fibers Segment posted record-level sales and operating profitability improvement in 2018. Segment order intake increased 44.8% to CHF 1 157 million in 2018 compared with CHF 799 million in 2017. Sales jumped 57.3% in 2018 to CHF 1 098 million from CHF 698 million in 2017.

These results reflected a healthy demand in its core filament equipment market for fibers, which consequently boosted orders and sales for texturing systems. In the U.S., the robust demand for carpet yarn equipment also contributed to the strong performance. Additionally, the segment's nonwoven business posted an impressive increase in sales in 2018, underlining its initial success in establishing a foothold in this market.

The Segment experienced growth across all its key regional markets, most notably in China, the U.S. and Latin America. The segment continued to gain market share and has generated a robust order pipeline with deliveries into 2021, laying the groundwork for sustaining a high level of top-line results over the next few years.

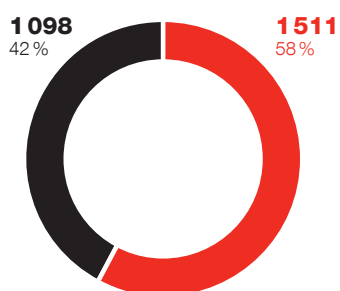
Segment profitability also improved substantially in 2018, with EBITDA more than doubling (up 129%) to CHF 128 million, or 11.7% of sales, versus CHF 56 million, or 8.0% of sales, in 2017. EBIT stood at CHF 106 million, or 9.6% of sales, in 2018, while EBIT in 2017 was at CHF 33 million, or 4.7% of sales.

To solidify its market position, the segment made two strategic acquisitions during 2018. With AC-Automation, the segment extended its smart plant portfolio with a large-scale plant automation solution for customers in the textile and packaging industries. Acquiring the technologies from PE Polymer Engineering Plant Construction enabled the segment to expand its product range to cover the entire polyamide process chain for fibers and filaments. In line with its strategy to focus on its core businesses, the segment divested its tapes and monofilament business to the Austrian Starlinger Group. In 2018, the segment also signed an agreement with Shaoyang Textile Machinery in China in order to penetrate the disposable nonwovens market.

A globally balanced business

Maintaining a portfolio of innovative technologies, a global presence and industry-leading scope of comprehensive services continue to be key components of Oerlikon's growth strategy. The Surface Solutions Segment contributed 58% to total Group sales in 2018, while the Manmade Fibers Segment accounted for approximately 42% of Group sales.

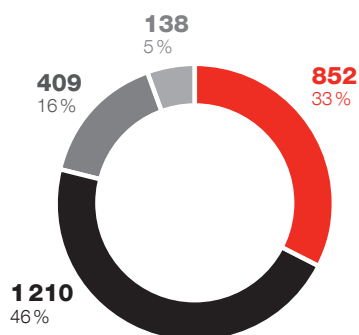
With a strong global footprint, Oerlikon operates over 175 sites in 37 countries, with 79 sites in Europe, 52 sites in Asia-Pacific and 44 sites in the Americas. Asia-Pacific accounted for the largest proportion of Group sales in 2018. Sales in Asia-Pacific amounted to CHF 1 210 million, or 46% of Group sales, versus CHF 884 million, or 43% of Group sales, in 2017. Europe was the second largest regional contributor to Group sales in 2018, with sales totaling CHF 852 million, or 33% of sales, compared with CHF 775 million, or 37% of sales, in 2017. Group sales in North America totaled CHF 409 million, or 16% of Group sales, in 2018, versus CHF 300 million, or 15% of Group sales, in 2017. Sales in other regions remained at 5% of Group sales in 2018 with sales of CHF 138 million, compared to CHF 109 million in 2017.



Sales 2018 by Segment¹
in CHF million

- Surface Solutions Segment
- Manmade Fibers Segment

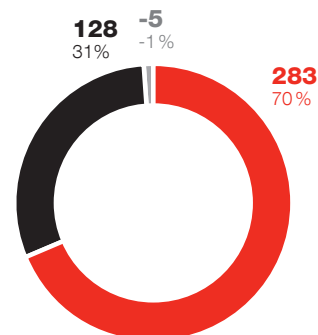
¹ Continuing operations.



Sales 2018 by region¹
in CHF million

- Europe
- Asia-Pacific
- North America
- Other regions

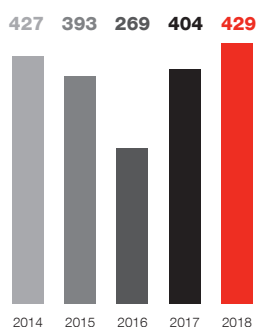
¹ Continuing operations.



EBITDA 2018 by Segment¹
in CHF million

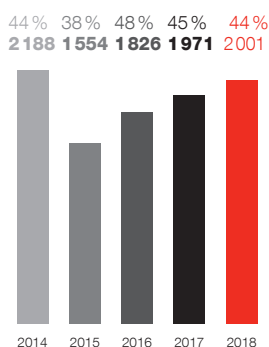
- Surface Solutions Segment
- Manmade Fibers Segment
- Others

¹ Continuing operations.



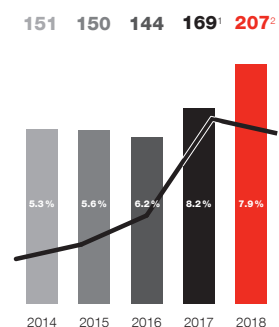
Operating cash flow¹
in CHF million

¹ Before changes in net current assets.



Equity¹
in CHF million (as % of assets)

¹ Attributable to shareholders of the parent.

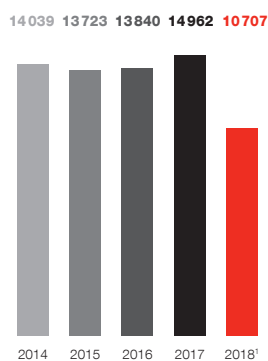


Capital expenditure
in CHF million

— In % of sales

¹ Restated.

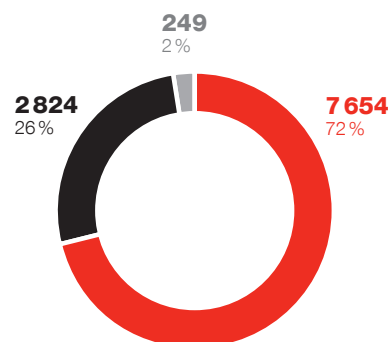
² Continuing operations.



Employees (FTE)² 2018

¹ Following divestment of Drive Systems Segment.

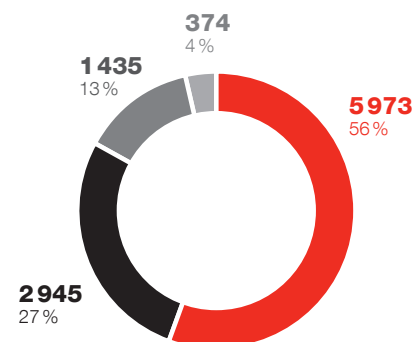
² FTE = Full-time equivalents.



Employees (FTE) 2018 by Segment¹

- Surface Solutions Segment
- Manmade Fibers Segment
- Others

¹ Continuing operations.



Employees (FTE) 2018 by region¹

- Europe (EMEA)
- Asia-Pacific
- North America
- Other regions

¹ Continuing operations.

Solid balance sheet strength with equity ratio of 44 %

As of December 31, 2018, Oerlikon's balance sheet totaled CHF 4545 million, compared to CHF 4363 million at year-end 2017. The Oerlikon Group had equity (attributable to shareholders of the parent) of CHF 2001 million, representing an equity ratio of 44%, compared to CHF 1971 million, or an equity ratio of 45% as at December 31, 2017. The year-on-year increase in the total balance sheet and continued strong equity ratio primarily reflected the improved cash and cash equivalent positions due to higher customer advances. This was offset by higher capital expenditure and an increased dividend payment. As a result, net liquidity at the end of 2018 was CHF 398 million compared to CHF 499 million at 31 December 2017.

Strong operating cash flow

Cash flow from operating activities before changes in net current assets increased 6.2% in 2018 to CHF 429 million compared with CHF 404 million in 2017. Net working capital, defined as trade and trade note receivables plus inventories minus trade payables and current customer advances, totaled minus CHF 79 million in 2018 versus CHF 167 million in 2017.

Capital expenditure (CAPEX) amounted to CHF 207 million, compared to CHF 169 million in 2017. Excluding amortization of acquired intangible assets, the CAPEX-to-depreciation ratio was 1.7 times, which is higher than the Group's target of between 1.0 to 1.2 times due to significant investments in additive manufacturing and in building up promising surface solutions businesses such as ePD.

Cash flow from investing activities was minus CHF 342 million in 2018, compared with minus CHF 237 million in 2017, attributable primarily to capital expenditure for plant and equipment. Cash flow from financing activities amounted to minus CHF 149 million in 2018, mainly for dividend payments of CHF 118 million, repayment of financial debt of CHF 5 million and interest paid of CHF 16 million, compared with minus CHF 132 million in 2017, which included dividend payments of CHF 104 million, repayment of financial debt of CHF 6 million and interest paid of CHF 18 million. Oerlikon reported a cash and cash-equivalent position at the end of 2018 of CHF 764 million compared with CHF 871 million at the end of 2017.

Oerlikon invested more than 4% of its revenues in research and development (R&D) in 2018. R&D expenditure for the year was CHF 120 million, or 4.6% of Group sales, compared with CHF 101 million, or 4.9% of Group sales, in 2017. Oerlikon believes that a dividend payout is an important means of returning value to shareholders. Based on the strong performance in 2018, the Board of Directors will recommend a dividend payout of CHF 1.00 per share at the 46th Annual General Meeting of Shareholders on April 9, 2019. The proposed dividend comprises an ordinary dividend consistent with the previous year of CHF 0.35 and an extraordinary dividend of CHF 0.65 as a share of proceeds from the sale of the drive systems business.

Oerlikon Barmag WINGS spinning systems for FDY provides optimized production processes, low material waste rates and around 30% reduction in energy consumption than previous systems.



2018 Key Group Figures at a Glance

- Order intake totaled CHF 2731 million versus CHF 2211 million in 2017, an increase of 23.5%.
- Order backlog increased 20.2% to CHF 596 million versus CHF 496 million in 2017
- Sales increased 26.2% to CHF 2609 million from CHF 2068 million in 2017.
- EBITDA increased 26.1% to CHF 406 million, or 15.6% of sales, versus CHF 322 million, or 15.6% of sales, in 2017.
- EBIT increased 44.6% to CHF 243 million, or 9.3% of sales from CHF 168 million, or 8.1% of sales, in 2017.
- The result from continuing operations increased to CHF 173 million from CHF 95 million in 2017, an increase of 82.1%.
- Net income totaled CHF 245 million, or earnings per share of CHF 0.71, versus net income of CHF 151 million, or earnings per share of CHF 0.44, in 2017
- Headcount (FTEs) totaled 10727, compared with 14902 employees worldwide in 2017 due to the divestment of Drive Systems Segment.
- ROCE stood at 12.1%. In 2017, it was 8.2% including drive systems business.
- The Board of Directors will recommend a dividend payout of CHF 1.00 per share at the 2019 AGM. This comprises an ordinary dividend of CHF 0.35 and an extraordinary dividend of CHF 0.65 as a share of proceeds from the sale of the drive systems business.

Oerlikon Group

Corporate Structure

Oerlikon is a leading global technology and engineering Group providing market-leading solutions and services for surfaces and manmade fiber production in diverse industries. Following the divestment of the Drive Systems Segment, the Group is structured in two Segments: Surface Solutions and Manmade Fibers. Each Segment offers technologies and solutions under well-established industry competence brands and adopts strategies specific to customers' needs and requirements in the respective market.

oerlikon

Surface Solutions Segment

oerlikon
balzers

oerlikon
metco

oerlikon
am

Manmade Fibers Segment

oerlikon
barmag

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neumag

Sustainability and Key Developments

Oerlikon is committed to adhering to the principles of good corporate governance; in particular, the guidelines defined in the Swiss Code of Best Practice for Corporate Governance by *economiesuisse*. Apart from the Articles of Association, in which the purpose of the company, the corporate bylaws and statutes are officially filed, Oerlikon has a clearly defined Code of Conduct covering the ethical and legal framework for all its business activities.

Sustainability at Oerlikon cuts across all business areas, from customer service, R&D, innovation and operational excellence (including manufacturing, supply chain, health and safety, environment and digitalization) to HR policy, risk management and compliance with legal, regulatory, ethical and internally defined requirements.

Oerlikon continued to implement a number of initiatives to improve business and operational excellence in 2018, and also took steps to further streamline the organization in order to make it more efficient.

CUSTOMER SERVICE

The Surface Solutions Segment continued to enhance its customer service process in 2018. The Segment's sales force was aligned along industry verticals to focus on the key markets of interest for the materials, equipment and service businesses, creating a stronger client-facing organization. This alignment is expected to improve customer engagement by ensuring an adequate level of industry expertise on each of the teams. Additionally, the Group is increasing its focus on building up key account management, turnkey solutions and after-sales services.

Closer cooperation with customers enhances both deeper relationships and new opportunities for Oerlikon. In 2018, the Surface Solutions Segment opened and expanded 10 new production and service sites in China, India, Malaysia, Germany, Finland, Italy, Switzerland, Slovakia and the U.S. As of the end of December 2018, Oerlikon operated a global network of 160 surface solutions sites in 37 countries.

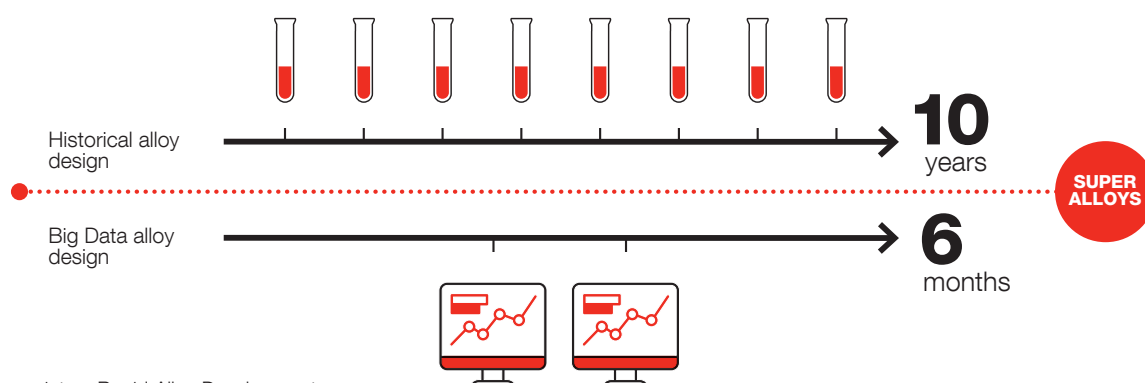
In the aerospace market, Oerlikon continued to strengthen its customer offering through further qualification

programs for OEMs. In 2018, Oerlikon Balzers received Qualified Supplier status for Airbus for BALINIT C coating on copper alloys at two customer centers in the U.K. and France. Oerlikon Metco received qualification for its Metco 5143 deposition material from Rolls-Royce, while Oerlikon's sites in Barleben, Germany, and in Huntersville, USA, received AS9100D certification for aerospace component production. Additionally, the Segment succeeded in obtaining coating qualifications for Ansaldo gas turbines and increased job coating services for the automotive industry in China.

The Manmade Fibers Segment further enhanced its webshop application, which provides customers with comprehensive online services including the latest product specifications, online order processing and tracking and checking processes relating to maintenance, updates and supply of original parts. In addition, the Segment introduced special support capabilities for yarn manufacturing with godet coatings to ensure the high quality of yarns produced and provided expert know-how on how the godet coating process can be deployed.

In 2018, Oerlikon held numerous technology or innovation days with customers. The Surface Solutions Segment hosted its first Asia Press-shop Meeting following the success of its European Press-shop Meetings in Germany, a metal forming seminar in Jakarta, Indonesia, a hardfacing materials seminar in Korea and technology days with several major automotive OEMs in the U.S. and Japan. A customer event was organized to launch SurfaceOne and powder feeders in Japan, while a similar event took place in India to introduce SUMEBore technology to an automotive customer. The Manmade Fibers Segment also held a number of Tech Days, including one in Silvassa, India, a VDMA event in Mumbai, and the 30 Years' BSO event in China.

In 2018, Oerlikon received numerous awards for technological and customer services excellence, such as the SAGW Supplier Excellence Award in China, the 2018 Red Dot Award in Product Design in Germany, the Automotive Lightweight Innovation Award in China and an Investors of the Quarter Award in Korea for its continuous commitment to the Korean industry.

Rapid Alloy Development (RAD)

Oerlikon's proprietary Rapid Alloy Development technology enables millions of data to be processed rapidly to find alloys that satisfy specific, customized functions and requirements.

R&D AND INNOVATION

Oerlikon invested more than 4% of total annual sales in R&D in 2018, corresponding to a sum of CHF 120 million, and filed 87 patents worldwide. Oerlikon's innovative pipeline is fueled by cutting-edge research and engineering processes to develop solutions that address customers' and markets' current and future needs. Through close collaboration with academia and industry experts, Oerlikon's R&D engine continues to contribute to the development of advanced science and breakthrough technology projects that also meet the requirements of social and environmental considerations, such as energy efficiency and environmental sustainability.

In 2018, Oerlikon introduced a large number of new technologies and solutions to the market – ranging from new and enhanced equipment and systems to materials, coatings and services, such as:

Materials

- More than 25 materials and (super)alloys were launched in 2018.
- Thanks to the proprietary Rapid Alloy Development technology, Oerlikon now develops new and customized alloys in significantly shorter time than existent methods. This in turn has led to new key contracts signed, for example in 2018 with major wear plate OEMs.
- A proprietary powder was developed for Mitsubishi Power Systems for turbine blades.

- New additive manufacturing alloys were launched, such as steel alloy for tools (H11 and H13) and a cobalt-based superalloy (H188) for application in aerospace and power generation.
- Oerlikon's new advanced powder production operation at Plymouth Township, Michigan, started operations in 2018. This state-of-the-art facility is equipped with vacuum atomization technology that can produce much higher-quality powders.

Equipment and Systems

- The new INNOVENTA kila offers customers up to 55% higher productivity and increased flexibility, and has more than 20% higher loading capacity.
- The new INNOVENTA giga caters specifically to the increasing need for very large coating machines, particularly for larger forming tools. This system enables a more than 50% increase in productivity compared to its predecessor.
- Thanks to the enhanced INUBIA B6.1, current customers benefit from time and cost savings as a result of the new ePD single spindle drive design, which enables customers to coat exterior automotive parts without the need to use the conventional inline coater for sample or coating development.
- INLENIA pica is the next generation of the INGENIA system. As part of the INLENIA family, it utilizes Oerlikon Balzers' proprietary and unique S3p technology and specializes in offering customers individual top-end solutions for extra-fine coatings.

Coatings and Services

- primeGear is a customized and integrated service that improves the performance of cutting tools for the production of gear components. primeGear enables automotive customers to reduce their manufacturing costs of gear components by up to 40%, while ensuring the same level, or even better quality.
- BALIQ CARBOS is a brand-new coating solution that is a hydrogen-free carbon coating. It is based on Oerlikon Balzers' S3p technology and provides customers with a higher degree of coating hardness and thus an improved abrasive wear resistance compared to DLC (diamond-like carbon coatings). This coating is optimal in applications where hardness is a key, critical criterion, such as for sharp and durable food processing components, high-end decorative parts and medical instruments.
- BALIFOR T coatings allow a surface finish that significantly reduces counter-body wear for piston pins in automotive systems.
- BALINIT FORMERA coating for advanced high-strength steel was reinforced with a new aluminum die casting feature.
- InShape is a new process that allows a quick and careful reprocessing of carbide (HM) tools, without affecting their surface or profile. Compared to conventional decoating methods, InShape saves costs especially for complex tools by eliminating or limiting post-profiling.
- ESync is based on the Segmented Synchronizer System (S³) from Oerlikon's friction systems business. It enables customers to reduce the axial package by up to 11 mm in a synchronizer system, freeing up space for a reduction of transmission or for additional components. The solution is ideal for advanced hybrid vehicles and was launched at the 2018 Shanghai CTI and Beijing TMC conferences.
- Oerlikon Metco launched an abradable coating technology for minimizing gas path clearance and improving engine efficiency of steam turbines at extremely high temperatures (up to 1 150 °C).
- A proprietary thermal barrier coating was developed by Oerlikon Metco in 2018 specifically to meet the requirements from Siemens.
- AM expanded its offering for medical services, specifically for orthopedic applications, with the acquisition of DiSanto Technologies.
- An instant online order service for AM prototyping was launched to expedite the request for such a service and to support the growth in demand for plastics and metal AM prototyping.

Manmade Fibers Segment

- The Manmade Fibers Segment introduced its new Staple FORCE S 1100 technology in 2018, which allows the production of small batches (up to 15 tons per day) that can be swiftly reconfigured for various requirements, including polymer, dye and titer changes.
- The Segment also made notable strides in digitizing the "From Melt to Yarn, Fibers and Nonwovens" process chain by extending its smart plant system to include a component called "AIM4DTY", which is an automated system "trained" to use trend charts and respective error recognition systems.
- In 2018, a Wiping Robot automated solution that utilizes an intelligent control system to operate cleaning spinnerets to save production time and reduce operating costs was also launched.

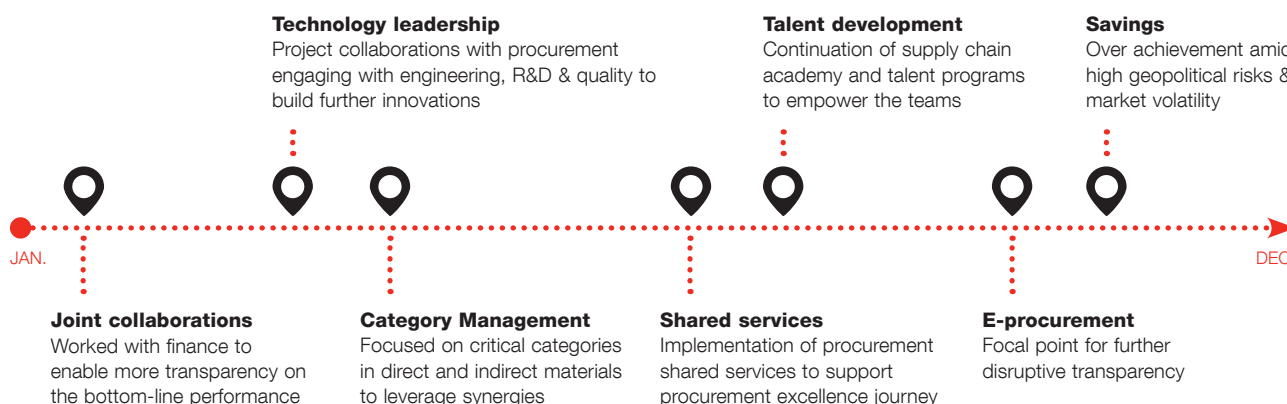
OPERATIONAL EXCELLENCE

The Oerlikon Operational Excellence (OOE) program's overall mission is to enable growth, contribute to bottom-line value creation and shape transformation. The program focuses on optimizing operational performance in a number of areas, including manufacturing, procurement, health & safety, environment, post-merger integration and digitalization. The goal of the program is to achieve world-class status in each of these areas. Since inception, ongoing initiatives have gained traction and delivered material results, including improving efficiency across Oerlikon's supply chain, increasing productivity in its manufacturing processes, raising safety awareness throughout the organization and lowering accident frequency rates. Ultimately, the OOE program supports creating a safer and more productive workplace, while generating cost savings for the Group.

World-Class Manufacturing

OOE is driving the Group's operations to achieve higher-quality and increasingly efficient processes that provide cost savings and increase customer satisfaction. Initiated and realized actions and results in 2018 were as follows:

- Employees at nearly all production sites were trained in Lean Philosophy and Lean Tools. Employees identified a significant number of optimization options and began implementation. Areas of improvement included lead time, cost of non-quality (CoNQ) and overall costs. Many of these improvements are expected to yield benefits for years.

Supply Chain Milestones 2018

- A set of harmonized tools for OOE initiatives used at Oerlikon sites around the world were created through collaborative efforts of Oerlikon OOE coordinators.
- A number of workshops and new automated fixtures were installed by the BU Balzers Industrial Solutions to improve productivity.
- An OOE SharePoint platform was launched to provide all employees access to Lean training material and best practices.
- The BU Automotive Solutions introduced the concept of automated handling of parts and developed a robot-supported process to increase efficiency and improve the use of resources to strengthen process leadership.
- For the new ePD Competence and Customer Center in Bisingen, Germany, a best-practice production environment based on simulated and optimized material flow was codesigned by the BU Automotive Solutions and OOE teams as a lighthouse project for future expansion.
- A project was initiated by the BU Automotive Solutions for one of its sites in Germany, to redesign production processes and streamline data and order handling to increase competitiveness by decreasing lead times and driving cost-efficiency.
- Training sessions were held on the shop floors in Germany by the BU Metco Aero & Energy and BU Automotive Solutions in Salzgitter to empower employees to improve processes to increase reliability and cost-efficiency. The program is expected to continue over the next few years.

World-Class Supply Chain Management

Supply chain management made pivotal steps to drive sustainable, tangible value going forward, spanning the end-to-end value stream. Supply management's maturity model had a positive impact on bottom-line results, despite increased volatility and higher geopolitical risks. Initiated and realized actions and results in 2018 were as follows:

- Significant savings were achieved through focused efforts applied in the Manmade Fibers Segment and at the new production site at Velká Ida (Surface Solutions Segment).
- Strategic supplier engagements further expanded Oerlikon's technology leadership to align solutions to customer and market needs.
- The extension of a robust Group governance approach to BU levels supported by regional councils delivered substantial synergies across regions to cement a solid foundation for procurement excellence.
- Shared services and eProcurement initiatives implementation continued to be focal points and are strongly impacting a technology-driven and predictive supply chain to shape a positive future.
- The Supply Chain Academy and development programs continued to be strengthened to position supply chain management for future growth, ensuring all procurement employees worldwide are well-equipped and fully integrated.
- The integration and harmonization of newly acquired companies further strengthened the Surface Solutions Segment supply chain team.

Health and Safety

Oerlikon's approach to health and safety is inspired by the "zero harm to people" vision (i.e. no fatalities, no serious accidents and a continuous reduction of accident rates and occupational illness). Health and safety remain integral parts of the Group's business processes, and new initiatives have been launched to reduce both the frequency and severity of accidents, as well as to improve the health and wellbeing of employees.

In 2018, Oerlikon achieved further progress to make and keep the occupational health and safety of employees a top priority. The total accident frequency rate (TAFR) has been the leading safety KPI of the Group since 2017. It considers lost time accidents (i.e. accidents causing absence of one or more days or shifts) and medical treatment accidents (i.e. injuries requiring treatment by a medically qualified person such as a physician but not causing absence) per 200,000 hours worked. In 2018, Oerlikon (continuing operations) reduced the TAFR by 15% to 0.87, reflecting the focus on safety managing even with the high workload and ramp-up in some businesses. The Manmade Fibers Segment and all BUs of the Surface Solutions Segment outperformed their targets, and the TAFR baseline was established for the BU Additive Manufacturing.

The establishment of health, safety and environment (HSE) guidelines and processes as well as the monitoring of the implementation of the programs and performance are coordinated by the HSE committee and led by the Head of Group HSE. Its members are in direct contact with the legal entities or sites within their scope, which allows for better top-down, bottom-up and interdepartmental communication and collaboration. The milestones achieved in 2018 include the following:

- The fourth annual Group-wide HSE Day was held globally with the motto "life-saving rules". The aim was to increase employee awareness about life-threatening risks that exist at work and in private. Safety guidelines were provided for the areas of crane operation, working at height, forklift traffic, electrical risk and lockout/tagout (LOTO).
- Other Group-wide initiatives focused on HSE awareness creation, enhancing management involvement and sustaining safe operator behavior, such as conducting "safety observation tours", improved risk identification and assessment, sharing lessons learned and legal compliance.
- Handling of sharp tools and products is inherent to the day-to-day business of the BU Balzers Industrial Solutions. By rolling out detailed instructions on which personal protective equipment needs to be worn at which workstations, the number of incidents caused by cuts was reduced to almost zero.
- A campaign was launched to enforce the need to wear protection when working at a height above 2 meters and to minimize the risk of falling.
- In the BU Automotive Solutions, the introduction of a safety tool policy led to a significant reduction in injuries, particularly for employees working with cutters and knives. Additionally, blue and red spots for powered industrial trucks (PIT), such as forklifts, were implemented to provide better identification of the approaching PIT for other truck drivers or pedestrians in the area.
- A key initiative in 2018 at the BU Metco Aero & Energy was aimed at preventing hand injuries. In the thermal spray business, a campaign was launched to review risk assessments at all sites, with a focus on cutting risks and tasks requiring hand protection.
- A restriction policy for the use of mobile phones by employees and visitors was implemented at an Oerlikon Metco site in the Netherlands. This is in compliance with ITAR/export control requirements and data protection requirements, and is to prevent unsafe situations on the shop floor from occurring due to inattentiveness and distractions from using a mobile phone. This best practice has served as a model for the Group-wide guideline: "Safe use of mobile phones".
- The semi-automated sieving process for powder and the protected removal of powder has been standardized at the additive manufacturing production centers, ensuring that no employees come into contact with powder. Respiratory protection has also been standardized at all production sites. The protective equipment combines high-level dust protection with improved ergonomics.
- The significant increase in orders and sales in the Manmade Fibers Segment led to an increase in the number of employees who required comprehensive HSE training. Despite the ramp-up, the segment succeeded in reducing the TAFR by 25% compared with 2017.
- Crane operation training was enhanced in the Manmade Fibers Segment in 2018 for all concerned personnel. Alone at the site in Remscheid, Germany, more than 400 workers were trained.
- In addition to the required regulatory risk assessments, the manmade fibers business implemented a new risk assessment improvement campaign at its sites in Germany with the support of an external safety expert. This has resulted in increased HSE awareness and its systematic approach is being extended and proactively applied to new machines and newly designed shop floor areas.



Oerlikon MetcoClad systems have the flexibility to develop cladding strategies to process a wide range of workpiece geometries. These systems benefit customers from general industry to gas turbine suppliers.

Environment

Minimizing the environmental impact of its products, solutions and services is Oerlikon's environmental ambition. Oerlikon's technologies and solutions are designed to help reduce energy consumption and emissions while preserving resources. Examples of this ambition in action include the following:

- Oerlikon Balzers customer centers in Great Britain and France completed the Airbus Industrial Qualification Process with the technical qualification of BALINIT C as a non-hazardous and REACH-conforming option to hard chrome plating. REACH is an EU regulation addressing the production and use of chemical substances and their potential impact on both human health and the environment.
 - The ePD coating method (embedded PVD for Design parts) by Oerlikon Balzers uses a combination of PVD thin-film and UV paint technologies and is free of toxic substances such as chromium derivatives. This sets ePD as the leading alternative technology ahead of the curve in compliance with EU REACH environmental regulations that have been in effect since the end of 2017, and limits the use of traditional e-plating for decorative products in preparation of a final ban.
 - While unsightly on car wheels, brake dust is even more damaging to the health. Scientists have linked fine-particle pollution to a wide range of medical conditions, from heart disease to the inability to sleep. To tackle this problem, Oerlikon engineers have developed an innovative double coating that prevents cast-iron brake discs from shedding dust, an important contribution in the quest to reduce particle emissions.
 - Engineers at Oerlikon continuously work in collaboration with manufacturers to meet challenges and develop solutions that contribute to wind energy's
- potential. One resulting innovation is the treatment of ring gears with BALITHERM IONIT, a plasma nitriding process developed by Oerlikon Balzers that achieves a significant reduction in warping and increases load-bearing capacity.
- Oerlikon Neumag's innovative machines and yarn production processes help customers manufacture carpets that use less yarn for the same coverage. This leads to significant cost advantages in carpet production. In addition, through sustainable materials innovation, carpets nowadays release negligible emissions of volatile organic compounds (VOCs), which are chemicals released from a variety of products that turn to gases and can affect indoor air quality.
- Reducing emissions and optimizing consumption of scarce resources is essential for Oerlikon's operations. Therefore, Oerlikon sites have environmental management systems in place, partly certified according to ISO 14001:2015 (i.e. almost all Oerlikon Metco sites and one-third of the Oerlikon Balzers thin-film sites). Most of Oerlikon's sites in Germany have certified energy management systems in place that adhere to ISO 50001.
- Oerlikon plans an extension at the combined heat and power plant at a site in Remscheid, Germany, which has been operational since 2016. Over its total life cycle, the entire project is estimated to generate energy savings of 160 million kWh, which equals CO₂-free energy consumption of approximately 1 200 average households.
- An initiative was launched to promote successful energy saving projects within the Group.
- Thin-film sites worldwide of the BU Balzers Industrial Solutions enhanced their processes for the order, use and disposal of dangerous products and for waste management.

Oerlikon offered a number of apprentices the chance to learn new skills and competencies in Oerlikon's production and service centers in 2018.



Post Merger Integration

During 2018, the Post Merger Integration (PMI) function within Oerlikon was established and brought in full swing as a Group function to improve and standardize the approach and execution of post-merger integration activities across the Group. Some of the main accomplishments in 2018 include:

- The introduction, implementation and improvement of the PMI directive allowed Oerlikon to maximize the benefits of acquisitions and plan deeper integrations that reduce Group complexity and further support the “ONE Oerlikon” initiatives. Using these guidelines, Oerlikon has successfully standardized the PMI approach to all acquisitions.
- Under the directive, project governance will be set up well in advance of the acquisition closing day, which in turn reveals the complexity of each deal, helping Oerlikon to be well prepared for a successful closure.
- A defined, pragmatic guideline was established for the decision-making process during the execution phase to ensure effective value creation. Oerlikon secures the strong involvement of key decision makers through preset steering committees and Executive Committee review meetings.
- Oerlikon has front-loaded PMI efforts into the M&A phase to deliver a detailed description of the target operating model for the combined business during due diligence, focusing on early planning of the target approach, that accounts for the deal type and scope, ensures the correct staffing of the project and involves top management. Involving PMI early in the process has proven to be crucial in ensuring that Oerlikon takes advantage of early momentum to guarantee the right speed of integration.
- A more rigorous collaboration between M&A and PMI guarantees a better transition into the PMI phase and the widening of the focus areas during due diligence now covers crucial areas for the implementation phase.
- A pulse check survey was introduced to get a broader overview of the progress of the integrations. Oerlikon analyzes how the target companies are assimilating to integration efforts to understand what measures can be taken to improve the success of a specific deal.
- Oerlikon held its first PMI workshop where all Integration Managers gathered to share experiences, tackle deal-specific issues to find common solutions and share PMI best practices and tools to continuously improve the overall PMI approach.

Digitalization

Oerlikon is taking a more active approach to digital transformation with the launch of Oerlikon’s Digital Roadmap 2025. This roadmap is the plan to digitalize Oerlikon’s products and processes and to transform Oerlikon’s workplace and results by 2025. In 2018, the following initiatives have been implemented:

- A Chief Digital Office (CDO) Board was established, and is chaired by Oerlikon’s Head of Group Business Services. The Board’s role is to steer overarching cross-topics, set the direction for Oerlikon’s digital transformation and lead the way in this digital journey.
- The BU Balzers Industrial Solutions started a Balzers 4.0 project, which serves to bring customer service and experience to a superior level and improve the daily operations of employees using 4.0 technologies.
- The Manmade Fibers Segment launched a data center in a box – a powerful, flexible and secure IT infrastructure solution for the textile industry of the future.
- The GO! (Global Oerlikon Surface Solutions) program was implemented in 2018 to harmonize the different IT and enterprise resource planning systems. The new system will speed up the deployment of new solutions and increase transparency and process efficiency. Compliance and scalability are two additional important capabilities that will be strengthened by the new solution. The program consists of 11 projects.
- In 2018, the systems at two locations of the thin-film equipment business line were integrated into the global SAP platform. The go live is planned for 2019.
- A proof-of-concept project for the thin-film coating business was successfully completed in 2018 to test that the SAP system can support the coating center business in an efficient way.
- A digital hub – a dedicated competence center for digital innovation – is being established in Munich to accelerate existing digital initiatives and the initiation of new ones. The digital hub team will lead the way in demonstrating how digitalization can bring excellence in project management and enhance existing skill sets.

EMPLOYEES

Oerlikon's code of conduct and core values – Integrity, Team Spirit, Excellence, and Innovation – are the behaviors encouraged to foster an inclusive and respectful working environment for all employees. Aiming to create a highly attractive place of work, Oerlikon took additional steps in 2018 to create a more cohesive, engaging and inspirational workplace that facilitates personal growth, organizational development and prepares people for the future.

Employee Engagement

A global Employee Engagement Survey was completed toward the end of 2017. Based on the survey's results, key engagement activities and action plans were defined for 2018, focusing on sharing and understanding the results, defining the key focus areas that will drive and improve the experiences Oerlikon provides and implementing organization-wide activities.

Following more than 100 employee engagement workshops in 2018, a number of local and business action plans were developed. For instance, compensation and structural adjustments were made in selected locations, cultural team building activities, such as the Metco World picture, were organized, new training programs were developed, employer branding and other employee experience initiatives were reviewed and the frequency of site visits was increased.

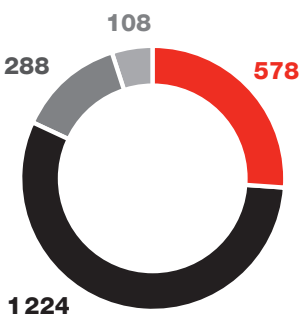
In select locations where feedback from the Engagement Survey required clarification and more information, a Pulse Survey was conducted at the end of 2018. While the survey was smaller in scope than the engagement survey, it was designed to assess progress in the implementation of action plans and to ensure that engagement is improving and going in the right direction. The next global engagement survey is planned for the final quarter of 2019.

Employee Experience & HR Technology

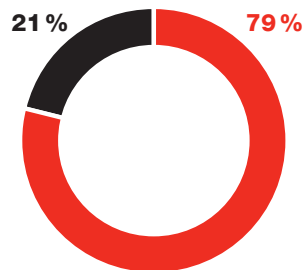
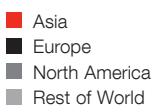
The Employee Engagement Survey provided valuable insights into the level of satisfaction that new and existing employees are experiencing in their interaction with Oerlikon. As an increasing number of tools and technologies become available, Human Resources can leverage these to not only enhance operative efficiency but also to elevate the quality of the touchpoints with our employees. In 2018, targeted pilots were conducted to focus on improving employee experience and perception of Oerlikon, including pre-hire and first-contact activities, onboarding automation and the introduction of a new HRIS system that enhances the daily interaction of employees for essential HR needs.

Employee Growth and Diversity

With the clear aim of creating an attractive place of work, Oerlikon has taken action to facilitate employee growth and diversity. In 2018, Oerlikon's net global workforce (full-time equivalents) grew by just under 1 000 employees (+9.4%). A total of 2 198 new employees were hired,



Origin of Employee Recruitment



Employee Split by Gender





“Through Horizons, I have a much clearer view of how important digitalization is for the company. The mentoring program and interaction with colleagues from all parts of Oerlikon offer valuable opportunities for growth.”

Andile Dlamini
Project Manager, Digitalization
Manmade Fibers Segment

of which almost 20 % were recruited in China and India. Furthermore, more than half (58 %) of the new hires are under the age of 35 and approximately one quarter of new hires are female, corresponding to more than 500 female new hires. All of these activities are reflecting Oerlikon's commitment to ensure operational continuity and a more balanced diversity by attracting culturally diverse and younger talents.

Learning and Development

To support employee learning and career development, Oerlikon runs a number of training and development programs, including online training for employees. In 2018:

- Five new or revised leadership development programs were introduced and rolled out across the Group, including initiatives for both emerging leaders and experienced managers. The purpose of these programs is to nurture vital leadership capabilities such as coaching, influencing others and team building. In addition, a suite of leadership assessments, designed to enhance personal self-awareness and recognize areas of opportunity, was introduced.
- Over 40 leadership, development and other customized workshops impacting more than 700 individuals were held across the Group in 2018, representing a fourfold increase over 2017. Two-thirds of the attendees are making use of the personal feedback provided via the leadership assessment reports.

High Potential Programs

Oerlikon launched a global high-potential talent program, Horizons, in 2018. Horizons enables selected employees within the Group to have additional opportunities to develop new skills and knowledge, gain visibility of senior leadership, build a stronger network and participate in special business projects to develop their talents to its fullest. The purpose of Horizons is to ensure that Oerlikon can recognize, retain and build its best internal talents, which enables Oerlikon to not only provide a more sustainable leadership pipeline, but also greater perspective for individual careers.

After a robust nomination process coupled with further screening, 42 candidates (25 % of whom are female) gathered together for two annual action meetings, where they received special training on leadership, culture and business principles, are allocated business projects and get the chance to informally mix with senior leadership. Each of the candidates is assigned a personal mentor to enable them to gain new perspectives and maximize their personal learning journey.

In the Manmade Fibers Segment, an additional High Potential Program known as OMF+, is an established and respected talent initiative. This program puts the spotlight on mid-level management for the segment and attracts candidates from the entire manmade fibers business worldwide. In 2018, 28 employees from China, Germany and India participated in the program. OMF+ has gained



“The Oerlikon Horizons development program has brought me networking opportunities, participation in relevant projects, visibility and recognition.”

Liana Vinokur

Manager, Strategic Pricing,
Business Unit Metco Aero & Energy

high respect among internal and external stakeholders alike and in 2018, the program was awarded the St.Galler Leadership Award over 200 other entrants for the prize.

Culture and Transformation

In 2018, the management and other key teams continued on their High Performance Team journeys, which were kicked off in 2017. More than 250 managers and top leaders completed a series of workshops to enhance collaboration and increase team effectiveness, with the end objectives of improving their level of performance and fostering a more inspirational and motivational team culture.

At the same time, Oerlikon started a bottom-up change approach in March 2018 called the “Culture Change Champion” program to engage employees from segments, business units and functions across all levels of the organization. The goal of the program is to build a critical mass of change champions to drive culture transformation within their respective roles and teams, and in turn propagate cultural change across the Group.

These two initiatives will continue to embed change and transformation and will be further evolved throughout 2019 to engage even more teams and individuals across Oerlikon.

Apprenticeships

Oerlikon is an active collaborator with local schools and universities, with the aim of providing potential new employees who are just starting out in their careers with new perspectives and opportunities. As an ongoing pro-

gram, Oerlikon offered a number of apprentices the chance to learn new skills and competencies in Oerlikon’s production and service centers in 2018.

For example, in the Manmade Fibers Segment, the programs enabled 80 apprentices to learn specialized technical skills on the shop floor, such as cutting-machine operators or technical draughtsperson. In the Surface Solutions Segment, around 80 promising students were supervised by vocational trainers in ten different functions.

Leadership and Succession

In 2017, Oerlikon streamlined its approach toward talent recognition and introduced a revised talent calibration process to identify and recognize top performers. Since then, over 800 of the Group’s leaders have been identified and appraised by performance calibration.

As a result, Oerlikon has rebuilt a senior management pipeline for many critical roles and introduced more focused development programs for specific individuals. Additionally, over 600 calibrated leaders and successors were identified across 13 topic-specific talent pools with defined timelines based on their readiness to move into their new roles. These activities will help to reduce the mid-term dependencies on external recruitment consultants, while opening up career development paths and perspectives for existing employees. Subsequently, this enables Oerlikon to have more flexibility in finding and placing future talent in a fast-moving, technology-driven environment while increasing the motivation and engagement of existing employees.

COMPLIANCE

Business practices worldwide are conducted in line with Oerlikon's Code of Conduct, internal regulations as well as legal and regulatory requirements. Compliance is monitored at Group level, where standards are set, preventive measures are recommended, and information, training and consultation are provided. Listed on the SIX Swiss Exchange (SIX), Oerlikon complies with the legal and regulatory requirements specified by SIX and Swiss laws.

In accordance with Schedule 19 of the UK Finance Act 2016, the tax strategy of the group of companies of OC Oerlikon Corporation AG, Pfäffikon, Switzerland, can be found on and downloaded from its website (www.oerlikon.com/en/company/about-us/compliance/).

Further details on compliance can be found on page 86.

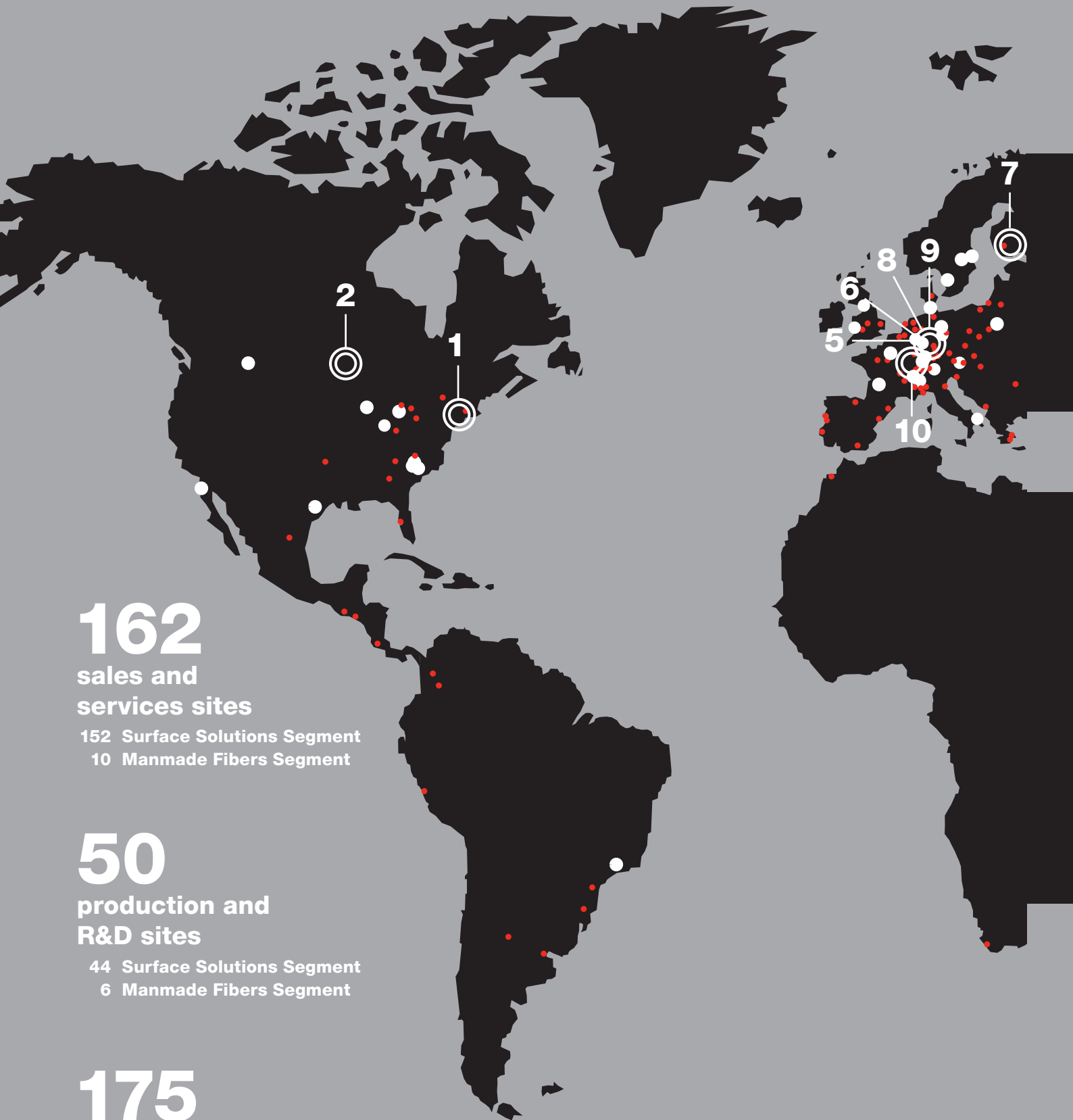
RISK MANAGEMENT

Oerlikon takes a comprehensive approach to risk management that identifies, assesses and monitors all corporate risks relevant throughout the Group, including market, credit and operational risks. The risk management system is integrated throughout the company from an operational and management perspective. Further information on risk management can be found on pages 84–86.

Oerlikon Manmade Fibers Segment's qualified professionals carry out repairs, help plan maintenance, select original parts, recommend upgrades and provide advice and support.



Serving our Customers Locally



162

sales and services sites

152 Surface Solutions Segment
10 Manmade Fibers Segment

50

production and R&D sites

44 Surface Solutions Segment
6 Manmade Fibers Segment

175

sites globally

44 in the Americas
52 in Asia
79 in Europe

1 Surface Solutions Segment

Additive Manufacturing in Shelton, Connecticut, USA

2 Surface Solutions Segment

Advanced Materials Production Plymouth, Michigan, USA

3 Manmade Fibers Segment

Polycondensation in Yangzhou, China

4 Surface Solutions Segment

Coating Center in Manesar, India

5 Manmade Fibers Segment

Plant Automation Solutions in Augsburg, Germany

6 Manmade Fibers Segment

Plant Automation Systems in Bernkastel-Kues, Germany

7 Surface Solutions Segment

R&D and Coating Center, in Espoo, Finland

8 Surface Solutions Segment

Nitriding solutions in Halver, Germany

9 Surface Solutions Segment

Coating Center Radevormwald, Germany

10 Surface Solutions Segment

Coating Center Langenthal, Switzerland

11 Surface Solutions Segment

Coating Center Johor, Malaysia



- ⊙ New sites in 2018 (incl. production)
- Production and R&D sites
- Other Oerlikon sites (incl. production)

Oerlikon has a global footprint with 175 sites in 37 countries. The Group is strongly committed to research and development, which is reflected by its 50 production and R&D sites worldwide. Together with its sales and services network of 162 sites, Oerlikon operates in close proximity to its customers, improving customer interaction, response times and satisfaction.

SEGMENT REPORTS

Surface Solutions Segment



The Oerlikon Balzers R&D team of more than 120 highly qualified engineers, materials scientists and physicists perform coating development work in laboratories with extensive analytical and test facilities.

The Surface Solutions Segment's combined served market totaled CHF 7.2 billion in 2018. Over the next five years, the Segment's addressable market is expected to grow to around CHF 9.7 billion, reflecting a CAGR of 6.7%. In 2018, the Segment's performance was driven by strong order and sales growth. The Segment's most important markets are automotive, aerospace, general industries, tooling and energy.

Automotive

The segment saw strong demand from automotive customers in China, India, Japan and South Korea for its physical vapor deposition coatings for injections and piston pins and nitriding solutions for clutch parts and ball pins. The segment successfully entered the chrome-coating automotive market in China with an environmentally friendly plastic metallization solution by securing the first sale of its ePD system, INUBIA 6, to the Shanghai Dafangwuyu Automobile Technology Company. The success for ePD was also visible in Europe, with an INUBIA B6 being sold to the Zanini Auto Group, a company specializing in wheel covers for the automotive industry. For its SUMEBore solution, the Segment also succeeded to win several projects with major OEMs such

as Volkswagen. The segment has also entered a joint venture with CY Myutec – an automotive parts company in South Korea – to expand its offering to this market.

In 2018, the segment launched a number of new products for automotive customers. In response to strengthening demand for higher efficiency vehicles, BALIFOR T coatings were introduced to provide the best solution for lower viscosity engine oils with new formulations. BALINIT FORMERA aids in the high strength steel car body and structures. A second production and service center was opened in Velká Ida, Slovakia, targeted mainly at automotive customers. The center provides fully automated processes for nitriding of ball pins to increase the durability of the metal parts and also offers customers Oerlikon Balzers' environmentally-friendly brake disc solutions with its BALITHERM IONIT OX technology.

General Industries and Tooling

In the general industries market, the segment saw strong growth in global sales specifically in the semiconductor, high-end deco, medical and general engineering markets. Due to growing trends in big data and automotive semiconductor applications, Oerlikon had a strong year in the semiconductor business. Increased demand was also registered in the wind energy market for PVD coatings. Targeted at the needs of the food processing industry, the segment launched BALINIT TRITON – an FDA approved coating that is foodstuff-neutral for applications such as plastic injection moulds and non-lubricated systems. Oerlikon Metco also sealed agreements with medical companies for advanced metal powders.

The segment saw an equally higher level of sales and orders in the tooling market, particularly in Europe, Japan, USA and India, due to the positive global economic climate in the first half of 2018. The segment launched its primeGear service, offering a start-to-finish solution for gear cutting tools. From consultation and optimization to tailored tool treatment solutions, primeGear allows Oerlikon to address the specific needs of each customer it serves.

With inShape, a reconditioning solution was introduced for cemented carbide tools. The product offers smooth re-coating capability that does not damage the surface of the tool, while reducing the cost by 25% over a tool's lifecycle. For bigger forming tools, Oerlikon Balzers built and delivered INNOVENTA giga in 2018. Oerlikon Balzers also introduced INNOVENTA kila, the coating system that can master both small and large quantities of tools and offers customers up to 55% higher productivity, increased flexibility and more than 20% higher loading capacity as compared to its predecessor system, INNOVA.

Aerospace

The aerospace market saw another strong year of growth in 2018 due to the continued ramp-up of new engine programs and overall increase of commercial air traffic. The segment gained many new businesses and customers including Airfoils Advanced Solutions, MTU Aero Engines, TATA Advanced Systems and Aero Engine Corporation of China (AECC) for its thermal spray solutions.

Several new partnerships with aerospace firms were also announced in 2018, including a five-year collaboration with Boeing to develop standardized materials and processes for metal-based additive manufacturing. The partnership is meant to ensure that parts made with this technology meet all global aerospace manufacturing requirements.

Among other 2018 highlights was the positive market feedback for Oerlikon Balzers' BALINIT Turbine Pro – a coating solution that provides hardness and tenacity for protection against abrasive wear and erosion of highly stressed components such as turbine blades. Additionally, Oerlikon Metco powder technology received qualification for China's CJ-1000 airplane engine.

Energy

In the energy market, Oerlikon's coatings enable turbines, hydroelectric plants and drilling equipment to withstand extreme temperatures, pressure and friction. Demand in this market was strong in 2018 amid the general strengthening and growth of the global oil & gas market. New customers and businesses acquired in 2018 include Caterpillar, Bradken – a large wear plate manufacturer for mining industries, Dongfang Turbine and Harbin Turbine, and Arogen KIC – a Korean company providing facilities for oil refinery and chemical plants.

In 2018, the segment launched numerous materials and alloys also for the energy (exploration and power generation) market, thanks to the accelerated speed of developing new alloys with RAD algorithm from acquired Scoperta. For instance, Metco 8463, a corrosion resistant thermal spray alloy used to protect refinery vessels from high temperature corrosion was introduced to the market.

The segment also launched in China abrasible coatings for steam turbines to increase engine efficiency at high temperatures and customized patented welding wires for fusing metal pieces together. Additionally, Oerlikon opened an in-house thermal spray services coating center at GE Power India in Ahmedabad for cycle steam turbines.



Order intake

+11.5 %

CHF 1 574 million



Sales

+10.3 %

CHF 1 511 million



EBITDA margin

18.6 %



Sites

160



Employees

7 654



R&D expenses

89

CHF million

Additive Manufacturing (AM)

AM technology saw a slow but steady increase in adoption in industries in 2018. The segment continues to establish partnerships with major industry players, academia and local governments to advance the adoption and industrialization of AM. In 2018, its partner network grew to include Boeing, GE Additive, RUAG Space and Lufthansa Technik for the development of AM components for aerospace.

In 2018, Oerlikon AM began operations at a new powder production facility in Plymouth Township, Michigan. The facility is equipped with vacuum and inert gas atomization technology for the production of spherical nickel, cobalt, steel and titanium-based alloys, representing a material improvement in quality from more traditional processes. In addition to the expansion of the production facility, Oerlikon also launched new AM alloys, including a tool steel (H11), a nickel-based superalloy (H230) and a cobalt-based superalloy (H188).



Color-coding tools with Oerlikon Balzer's BALIQ UNIQUE enables customers to differentiate them at a glance and to recognize the degree of abrasion immediately.

The segment also expanded its service business in Europe to the high-performance car market and its presence in the European prototyping market with a new web-based portal for online parts requests.

In October 2018, the company hosted more than 1 000 participants and 30 keynote speakers at the 2nd Munich Technology Conference on Additive Manufacturing. This conference facilitated advanced discussions with industry leaders, academics and politicians about the future of industrialized additive manufacturing.

Development in Regions

The Surface Solutions Segment increased sales across all regions in 2018. Steady growth, primarily in the first half of the year, was noted in China, where the segment generated 12 % of its sales. Oerlikon AM signed a long-term collaboration with Chinese firm Farsoon Technologies to accelerate the adoption of production in China by providing customers with printer hardware and fully certified metal powders. The Indian market generated 4 % of sales in 2018, capitalizing on continued growth in the tooling and automotive business in the region. To better serve the growing tool manufacturing market in the region, Oerlikon Balzers opened in 2018 its largest pro-

duction facility in India. Europe, the largest market for the segment, was responsible for 46 % of the segment's sales in 2018. The segment expanded its footprint with the opening of the largest coating center for tools in Europe in April in Bielefeld, Germany. The North American market generated 20 % of sales, an increase of 24 % of sales compared to 2017, reflecting expanded product offerings, services and market reach.

Strengthening the Technology Portfolio

To further strengthen its expertise and product offerings to its customers, the Surface Solutions Segment completed four acquisitions in 2018. The segment acquired DIARC Technology in Finland, and Sucotec in Switzerland. DIARC's thin-film technologies enhance Oerlikon Balzers' portfolio for customers in the automotive and precision component industries and strengthen Oerlikon's foothold in Finland. With Sucotec, Oerlikon Balzers expands its offering with high-quality chemical vapor deposition systems for the tooling market.

Oerlikon AM entered the medical component manufacturing industry with its acquisition of DiSanto Technology. DiSanto added a new facility in the U.S. that is ISO13485- and FDA-certified, enabling Oerlikon to expand into the contract manufacturing market for medical implants and instruments. The fourth acquisition by the Segment was Eicker, expanding the Segment's technologies and expertise in plasma nitriding – a heat treatment technology to increase the reliability and wear resistance of metal parts.

FROM SURFACE TO STRUCTURE

Building up the Additive Manufacturing Business

Over the past two years, Oerlikon has achieved significant milestones in building up its additive manufacturing business. It has established a strong R&D, operational and production footprint in Europe and in the U.S., and has started the sale of additive manufacturing powders in China.

Oerlikon offers a comprehensive set of AM services to industrial companies, covering the entire value chain – from initial 3D design and development of AM-tested alloys to component production and post-processing. Oerlikon will continue to invest in and grow this business by:

Leveraging its expertise in materials, surface treatments, engineering and services for high-performance components, Oerlikon is well positioned to lead the industrialization of metal-based AM.

- increasing the application engineering and design support for additive manufacturing applications
- expanding the high-volume manufacturing of specialized metal powder alloys and
- ramping up the additive manufacturing service (component production by printing) business.

Evaluation / Development



- Test and qualification programs for aerospace/defense
- Next generation AM platform

Boeing strategic partnership
5 year program

Opening MRO market with Lufthansa Technik partnership
2 year program

Partnering with RUAG Space to qualify series production of space components
Open-ended

Increase medical service offerings with acquisition of DiSanto Technology

Materials



- Differentiated portfolio of print-tested AM powders
- Installation of VIGA/EIGA¹ equipment to boost quality and capacity

Aerospace engine and power generation focused Ni-based superalloys

Expected growth of more than 30 %

Long-term contracts for powder supply signed with AM machine manufacturers

Expected strong growth over next 2 years

Expanding portfolio of steel alloys for tools production in automotive
Potential development projects with automotive/tooling OEMs

Prototyping



- Ongoing prototyping for one of the largest automotive manufactures in Germany
- Instant quoting services
- Prototyping for micro turbine customer

Diverse automotive applications, focus on engine components
New car model development in response to diesel crisis and electric cars drivers growth

Digital-based instant quoting services to reduce turnaround time

Growth in plastics and metal AM for prototyping through shorter reaction times

Power generation prototypes made from Ni-based superalloys in 2018, transition to series production planned

Series Services



- Major aerospace/defense customer
- Major power generation customer

Army helicopter program / current
5 year program – 500+ units / p.a.

Satellite parts / in development
5+ year program – 1500 units

Heat exchanger for defense / in development
4 year program – 1200 units

¹Vacuum Induction Gas Atomization (VIGA) / Electrode Induction Gas Atomization (EIGA)

SEGMENT REPORTS

Manmade Fibers Segment



Benefit from up to 30% less energy consumption, 35% less space usage and 30% less waste by using Oerlikon Barmag's optimized production processes, efficient systems and sustainable technologies as compared to conventional systems.

The Manmade Fibers Segment is a market leading solutions provider for manmade fiber manufacturing. The segment is composed of the Oerlikon Barmag and Oerlikon Neumag brands. Its solutions include filament spinning and winding equipment, texturing machines, bulked continuous filament (BCF-carpet yarn) systems, staple fibers systems, nonwovens and polycondensation solutions, which are used in a broad range of applications for the apparel and home textiles as well as for hygiene, industrial and geotextiles markets. Regionally, the segment's focus lies in China, India, Europe, Turkey and the Americas. In addition to providing manufacturing equipment and polycondensation plant design and project management, the segment also offers engineering, consulting and digital solutions as well as comprehensive customer services.

Over the next three years, the filament equipment market is expected to continue developing positively as it remains buoyed by the wave of investments in China. To sustain its top-line development, the Segment will continue to strengthen its existing market leadership position by introducing new innovations and next generation equipment. The segment will also improve its customer services capabilities and further grow its non-filament equipment busi-

nesses such as for staple fibers and nonwovens, within and outside of China. Additionally, the segment is leveraging Industry 4.0 technologies to bring customers new and groundbreaking digital solutions, designed specially for the textile manufacturing market.

Development in Industrial Markets

In 2018, the segment maintained its leadership position and captured 47% of the total filament equipment market, anchored by strong sales from China. Growth in the filament equipment space was driven primarily by large-scale orders and sales in China, supplemented by strong performance in India, and has project times extending into 2021. Strong filament equipment demand provided a stable project landscape for texturing machines, resulting in a record year of sales.

Sales in other manmade fiber markets were also robust with carpet yarn equipment demand experiencing significant growth of 59.3%, most notably in the U.S. while the first successes in nonwovens equipment has resulted in a 190% sales increase, albeit starting at a low level. Oerlikon Barmag Huitong Engineering also succeeded to secure notable polymer processing equipment and systems wins in 2018. The segment's new nonwovens business unit has built a promising pipeline of orders, primarily in Europe and Asia. Dedicated to focusing on this high-growth and promising market, the segment is partnering with Shaoyang Textile Machinery in China to jointly advance the offering and sales of nonwovens in the competitive hygiene industry.

Development in Regions

Generating 55% of the Manmade Fibers Segment revenue, China continues to be the segment's largest market in 2018. Already at the beginning of 2018, the segment was awarded two large orders totaling over CHF 500 million from two Top 10 global manmade fiber manufacturers. This high level of filament equipment sales led to a robust demand for texturing (DTY, Drawn Texturized Yarn) machines in China as well as sales growth in the industrial yarn sector.

In 2018, India accounted for 11% of the segment's sales, up from 15% in 2017. The strong performance in India was driven mainly by strong demand for filament equipment, texturing and staple fiber equipment from large commercial multi-filament and polyester yarn manufacturers. Europe, particularly Turkey, remains a key market for the segment and contributed 15% of total sales with increased demand for all products. In North America, accounting for 9% of the segment's 2018 sales, there was a noticeable uptick in orders this year attributed to the healthy growth of the carpet yarn market in the U.S. and supported by a strong customer service business.



Order intake

+44.8 %

CHF 1 157 million



Sales

+57.3 %

CHF 1 098 million



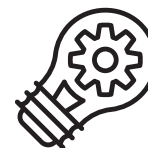
EBITDA margin

11.7 %

Sites

13

Employees

2 824

R&D expenses

31

CHF million

Strengthening Technology Portfolio

The Manmade Fibers Segment introduced several new equipment and software technology innovations in 2018. One standout innovation is the Staple FORCE S 1100, which was showcased at ITMA Asia + CITME, the world's largest textile trade show. The economical, flexible and compact Staple FORCE S 1100 staple fiber system has an advanced process control scheme to produce small batches of fibers and can be quickly reconfigured for polymer, dye and titer changes. This results in more accurate and consistent fiber quality, lower manufacturing costs and more efficient operations.

At ITMA Asia, Oerlikon also introduced its digital yarn factory, Factory 4.0, displaying the artificial intelligence, machine learning and human machine interface (HMI) solutions developed in 2018. An innovative digital factory component to note is the AIM4DTY, an automated solution using machine learning to identify error causes in texturing machines, resulting in reduced quality risks. Other new products and technologies announced in 2018 include an automated solution to cleaning spinnerets and a new IT infrastructure for textile customers, coined the "datacenter in a box", that is more powerful and flexible.

Strategic Acquisitions and Divestitures

The segment made two strategic acquisitions and one divestiture in 2018 to support future growth. The segment announced the divestment of its tape and monofilament technologies to the Austrian Starlinger Group, allowing the segment to focus on its core filament, staple fiber and nonwovens businesses. Expanding its product portfolio and business model, the segment acquired AC-Automation and the technology of PE Polymer Engineering Plant Construction. The AC-Automation acquisition provides the segment with additional large-scale plant automation logistic capabilities for packaging, high-bay storage and other solutions, adding another key core component to its current production plants and process technology solutions. By acquiring the technology of PE Polymer Engineering, the segment broadens its product range to include the melt preparation process step of polymers, as well as enters the high-end polyamide 6 (PA6, nylon) granulate market for the engineering plastics and film packaging markets.

SEGMENT REPORTS

Drive Systems Segment



With almost 100 years of experience in developing power transmission solutions for electric, mechanical and hydraulic drive applications and one of the world's largest independent full-service gear suppliers.

The Drive Systems Segment is a leading supplier of complete drive systems, gear systems and single components for transmissions. The segment delivers high-tech products to a variety of industries globally including agriculture, construction, transportation, automotive, energy (oil and gas) and mining markets. In 2018, the segment experienced broad-based growth across regions and continued to increase its market share as it launched new products and grew its presence with new and existing customers.

Divestment of Drive Systems Segment

Oerlikon has successfully closed the divestiture of this segment to Dana Incorporated on February 28, 2019 for an enterprise value of CHF 600 million.

Development in Industrial Markets

Agriculture remains the most important end market in 2018 for the segment, whose Shifting Solutions are found in nearly 70 % of agricultural machinery worldwide. The segment's Shifting Solutions for the agriculture market include the new Compact Slotless Synchronizer, clutch packs, a power take off (PTO) with hydraulic shifting, bevel sets and cylindrical gearing solutions.

Automotive market sales remained a significant revenue contributor as the segment benefited from ongoing demand for high-performance automotive and electric vehicle applications. For instance, the segment received a production order for a 2-speed electric front axle that will not only enhance vehicle performance and deliver 4 wheel drive capability, but also helps to significantly improve fuel efficiency and reduce emissions. The electric axle also features an innovative electro-mechanical actuation systems that is more precise and significantly faster than current solutions.

In the commercial vehicle market, the segment won new business in all key global markets. It also successfully expanded its product portfolio for this market – most notably, with a complete range of high-performance synchronizer systems for the new generation of truck transmissions.

Construction, particularly in India and the U.S., remained a growth market in 2018. In light construction equipment, the segment won the first production orders for its innovative integrated planetary electric drives, which are one-third the size of current products and 30 % more efficient. The high-tech drives deliver torque output and long-range life performance required for industrial machinery and off-highway mobile equipment.

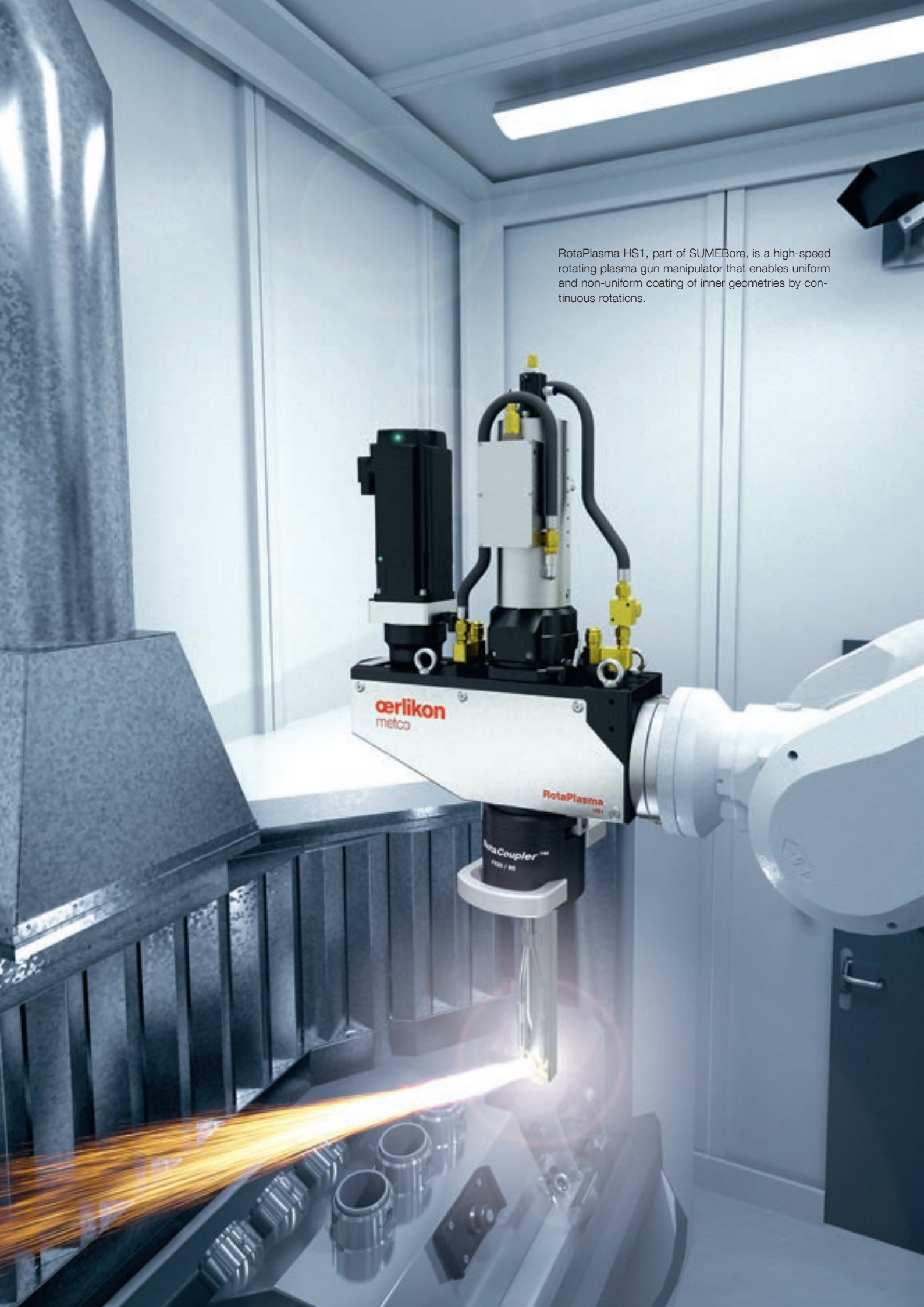
In the energy sector, the segment saw improved sales, primarily due to increased investment in the U.S. as shale production grew. The segment's offerings are used on oil and gas platforms, and demand tends to move with global production trends.

Development in Regions

Facing increasing demand for electric vehicles in China, the segment completed the development of its Changshu plant. The plant is expected to launch in 2019 and will produce innovative transmissions for electric cars. Additionally, continued growth in China's transportation market helped consolidate the segment's market leading position in low floor city bus axles. The Sanand facility in India, which manufactures products for commercial, agricultural and leisure vehicles, was expanded and its production for electric vehicle applications was brought to full capacity at the facility.

Corporate Governance Report

RotaPlasma HS1, part of SUMEBore, is a high-speed rotating plasma gun manipulator that enables uniform and non-uniform coating of inner geometries by continuous rotations.



Corporate Governance

Oerlikon is committed to the principles of good corporate governance as they are defined, in particular, in the Swiss Code of Best Practice for Corporate Governance, issued by *economiesuisse*. Through this commitment, Oerlikon aims to sustainably reinforce the trust placed in it by the company's present and future shareholders, lenders, employees, business partners and the general public.

Responsible corporate governance requires transparency with regard to the organization of management and control mechanisms at the uppermost level of the enterprise. Therefore, SIX Swiss Exchange's "Directive on Information relating to Corporate Governance" (DCG) requires issuers to make available to investors certain key information, in an appropriate form, pertaining to corporate governance.

The framework of the DCG has been adopted; however, the section "Compensations, shareholdings and loans" has been moved to a separate chapter ("Remuneration Report"). All statements in this section ("Corporate Governance") are as of the balance sheet date, except where – in the case of material changes between the balance sheet date and the time this Annual Report went to print – otherwise indicated.

Further information regarding corporate governance can be found on the company website at www.oerlikon.com/en/investors/corporate-governance.

GROUP STRUCTURE AND SHAREHOLDERS

Operational Group Structure

The Oerlikon Group is divided into the following three Segments: Surface Solutions, Manmade Fibers and Drive Systems. The operational responsibility lies with the Segments, each of which is overseen by its own Segment CEO, whereby Dr. Roland Fischer took on the added role of CEO of Surface Solutions. Business performance is

reported according to this operational Group structure. For further information regarding the operational Group structure, see page 28 et seqq. ("Group Business Review"), in particular page 33 ("Oerlikon Group Corporate Structure") and page 97. (Financial Report: "Key Figures by Segment").

Listed Group Company

OC Oerlikon Corporation AG, Pfäffikon is listed on SIX Swiss Exchange (symbol: OERL; securities number: 81682; ISIN: CH0000816824). On December 31, 2018, the company's market capitalization came to a total of CHF 3751 million. Its registered office is in Freienbach (Canton of Schwyz, Switzerland). For further information on OC Oerlikon Corporation AG, Pfäffikon see page 166 et seqq.

Non-Listed Group Companies

As parent company of the Group, OC Oerlikon Corporation AG, Pfäffikon owns all of the Group companies either directly or indirectly, mostly with a 100% interest. The local companies included in the scope of consolidation are shown on page 179 et seq. in their legal ownership structure, and on page 156 et seq., they are listed by country together with each company's place of registered office, share capital, percentage of shares owned and number of employees.

The disclosure notifications pursuant to Art. 120 et seqq. of the Financial Market Infrastructure Act (FMIA) that were submitted during the year under review are published on the electronic publication platform of SIX Swiss Exchange Ltd, Disclosure Office (www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html).

Cross-Shareholdings

There are no cross-shareholdings.

Significant Shareholders	Number of shares	Shareholdings ¹ in percent ²
Liwet Holding AG, Zurich, Switzerland ³	140 484 860 ⁴	41.34
Black Creek Investment Management Inc., Toronto, Canada	419 809 ⁵	0.12
BlackRock Inc., New York, USA	9 720 417 ⁶	2.86

¹ As of December 31, 2018. Source: Disclosure notifications pursuant to Art. 120 et seqq. of the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA) (www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html).

² Basis: shares issued (339 758 576).

³ The shares of Liwet Holding AG, Zurich, are ultimately held as follows:

(a) 44.46 % by Columbus Trust, a trust established under the laws of the Cayman Islands, whose ultimate beneficiary is Mr. Viktor F. Vekselberg, Moscow, Russian Federation and Zug, Switzerland.

(b) 19.455 % by Amapola Development Inc, Panama and Polaris Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Evgeny Olkhovik, Moscow, Russia.

(c) 19.455 % by Ali International Ltd., Bahamas and Olympia Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Andrey Lobanov, London, United Kingdom.

(d) 16.63 % by Next Generation Trust, a trust established under the laws of Cyprus, whose ultimate beneficiaries are Alexey Valerievich Moskov, Irina Arkadievna Matveeva, Mikhail Sergeevich Sivoldaev, Rinat Shavkiatovich Khalikov, Igor Vladimirovich Cheremikin and Andrey Alekseevich Shtorkh.

⁴ Source: Disclosure notification published by SIX Exchange Regulation on May 25, 2018.

⁵ According to the disclosure notification by Black Creek Investment Management Inc., Toronto (published by SIX Exchange Regulation on August 21, 2018), the company holds a purchase position of 3.03 % (0.12 % shares and 2.91 % voting rights, which were delegated by a third party and can be exercised by Black Creek Investment Management Inc. at its own discretion).

⁶ According to the disclosure notification by BlackRock Inc., New York (published by SIX Exchange Regulation on October 23, 2018), the company holds a purchase position of 3.44 % (whereof 2.86 % shares, 0.17 % voting rights, which were delegated by a third party and can be exercised by BlackRock Inc. at its own discretion, and 0.42 % derivatives).

CAPITAL STRUCTURE

Capital

The share capital of OC Oerlikon Corporation AG, Pfäffikon amounts to CHF 339 758 576, composed of 339 758 576 registered shares, each with a par value of CHF 1.00. The company also has conditional capital amounting to CHF 40 million for convertible and warrant bonds, etc., and CHF 7.2 million for employee stock option plans.

Authorized Capital and Conditional Capital in Particular

Authorized Capital:

The company has no authorized capital.

Conditional Capital for Warrant and Convertible Bonds

Pursuant to Art. 11a of the Articles of Association, the company's share capital will be increased by a maximum aggregate amount of CHF 40 million (corresponding to 11.77 % of the current share capital) through the issuance of a maximum of 40 million registered shares with a par value of CHF 1.00 each, by exercising the option and conversion rights granted in connection with bonds of the company or one of its Group companies. The subscription rights of shareholders are excluded in this regard. Current holders of option certificates and/or convertible bonds are entitled to acquire the new shares. When issuing warrant or convertible bonds, the Board of Directors can limit or exclude the preemptive subscription rights of shareholders (1) to finance and refinance the acquisition of enterprises, divisions thereof, or of participations, or of newly planned investments of the company, and (2) to issue warrant and convertible bonds on international capital markets. Insofar as preemptive subscription rights are excluded, (1) the bonds are to be placed publicly on market terms, (2) the exercise period for the option and conversion rights may not exceed seven years from the date the bond was issued, and (3) the exercise price for the new shares must at least correspond to the market conditions at the time the bond was issued.

Conditional Capital for Employee Stock Option Plans

Pursuant to Art. 11b of the Articles of Association, the company's share capital will be increased by a maximum aggregate amount of CHF 7.2 million (corresponding to 2.12 % of the current share capital), excluding the preemptive subscription rights of current shareholders, through the issuance of a maximum of 7.2 million fully paid-in registered shares with a par value of CHF 1.00 each, by the exercise of option rights granted to the employees of the company or one of its Group companies under a stock option plan yet to be approved by the Board of Directors. The issuance of shares at less than the stock exchange price is permissible; further details will be determined by the Board of Directors.

Changes in Capital

Since 2016, the share capital has remained unchanged. Detailed information on changes in the total equity of OC Oerlikon Corporation AG, Pfäffikon can be found in the holding company's equity capital statement on page 173 of the Annual Report.



Friction and wear are major factors limiting the performance and service life of tools. Oerlikon Balzers' coatings and nitridings are among the most effective ways to significantly extend tool life and to enable tools to be able to tolerate significantly higher cutting speeds and feeds, thus reducing machining time and costs.

Shares and Participation Certificates

The equity securities of OC Oerlikon Corporation AG, Pfäffikon consist exclusively of 339 758 576 fully paid-in registered shares with a par value of CHF 1.00 each, all of which are equal with respect to their attendant voting rights, dividend entitlement and other rights. The registered shares of OC Oerlikon Corporation AG, Pfäffikon are in principle not certificated but instead issued as uncertificated securities within the meaning of the Swiss Code of Obligations and as intermediated securities in terms of the Intermediated Securities Act, respectively. Shareholders may at any time request that the company print and deliver their shares in certificate form free of charge, and the company may, at any time and without the shareholders' approval, convert the uncertificated securities into share certificates, global certificates or collectively deposited securities. If registered shares are to be printed, OC Oerlikon Corporation AG, Pfäffikon may issue certificates covering multiples of registered shares. The share certificates bear the facsimile signatures of two members of the Board of Directors.

Profit-Sharing Certificates

OC Oerlikon Corporation AG, Pfäffikon has not issued any profit-sharing certificates.

Limitations on Transferability and Nominee Registrations

There are no restrictions on the transfer of OC Oerlikon Corporation AG, Pfäffikon shares. The company recognizes only those parties entered in the share register as shareholders or usufructuaries. Fiduciary shareholders and nominees will also be entered in the share register.

Convertible Bonds and Options

As at December 31, 2018, there were neither convertible bonds nor options outstanding.

The Oerlikon Board of Directors



Prof. Dr. Michael Süß

1963, German citizen

Chairman of the Board of Directors
Chairman of the Human Resources Committee
Chairman of the Strategy Committee

Professional background and education

Prof. Dr. Michael Süß was elected Chairman of the Board of Directors at the 2015 Annual General Meeting of Shareholders, the same year he joined the Board. From 2015 to 2016, he was also CEO of Georgsmarienhütte Holding, a German steel company. Prior to that, he was a member of the Managing Board of Siemens AG and CEO of Siemens Energy Sector. From 2008 to 2011, he was CEO of the Fossil Power Generation Division of the Energy Sector, and a member of the Group Executive Management of Siemens AG Power Generation Group from October 2006 to December 2007. After holding various positions at BMW, IDRA Press S.p.A. and Porsche AG, Prof. Dr. Süß was appointed to the Managing Board of Mössner AG in 1999.

Following Georg-Fischer Group's takeover, he was named Chairman of the Managing Board of GF Mössner GmbH. From 2001 to 2006, he was COO at MTU Aero Engines and significantly involved in the IPO of the company. From May 2009 to July 2018, he was a member of the Supervisory Board of Herrenknecht AG. Prof. Dr. Süß graduated with a degree in Mechanical Engineering from TU Munich, Germany, and completed his doctorate in 1994 at the Institute for Industrial Science/Ergonomics at the University of Kassel (Dr. rer. pol.), Germany. On October 29, 2015, he was awarded an honorary professorship of TU Munich.

Other activities and vested interests

Prof. Dr. Süß is Executive Vice President for Asset Management of Witel Ltd, Zurich (former Renova Management Ltd, Zurich) and First Deputy Chairman of the Supervisory Board of Verbund AG.



Gerhard Pegam

1962, Austrian citizen

Vice Chairman of the Board of Directors
Member of the Human Resources Committee
Member of the Strategy Committee
Member of the Audit & Finance Committee

Professional background and education

Gerhard Pegam was elected to the Board of Directors at the 2010 Annual General Meeting of Shareholders. In 2012, he founded his own consulting firm. From June 2011 until June 2012, he was a Corporate Officer of TDK Corporation, Japan. From 2001 until 2012, he was CEO of EPCOS AG, Germany, and from 2009 until 2012, he additionally served as a Board member of TDK-EPC Corp., the parent company of EPCOS AG. From 1982 to 2001, he held several management positions with EPCOS AG, the Siemens Group and Philips. Gerhard Pegam graduated from the Technical College Klagenfurt, Austria, with a diploma in Electrical Engineering.

Other activities and vested interests

Gerhard Pegam is a Board member of Süß MicroTec AG and Schaffner Holding AG.



Dr. Jean Botti

1957, French citizen

Member of the Board of Directors
Member of the Strategy Committee

Professional background and education

Dr. Jean Botti was elected to the Board of Directors at the 2016 Annual General Meeting of Shareholders. He is currently CEO of VoltAero SA, an aircraft company. From April 2016 through March 2017, he was Chief Innovation and Strategy Officer at Royal Philips. Prior to Philips, Dr. Botti was the Airbus Group's Chief Technical Officer for ten years. From 1997 to 2006, he served in diverse management roles at Delphi, including in customer solutions, as CTO and as Business Line Executive for the powertrain product line. Before joining Delphi, Dr. Botti held various management positions at General Motors and Renault, mostly in the area of chassis engineering, drivelines and automotive components. Dr. Botti holds 31 patents. He has two master's degrees: one in Mechanical Engineering from the Institute National des Sciences Appliquées of Toulouse, France, and the other in Science Administration from the Central Michigan University, USA. In addition, he has a Ph.D in Mechanical Engineering from the Conservatoire national des Arts et Métiers, Paris, France. He also completed the Research and Innovation Program at the Massachusetts Institute of Technology (MIT), Cambridge, USA. Dr. Botti is a member of the French Academy of Technologies. He is a recipient of the French Legion d'Honneur and of the French Medal of Aeronautics.

Other activities and vested interests

Dr. Botti is a Board member of Inventys, an oil and gas company in Canada.



Geoffery Merszei

1951, Canadian citizen
Member of the Board of Directors
Chairman of the Audit & Finance Committee

Professional background and education

Geoffery Merszei was elected to the Board of Directors at the 2017 Annual General Meeting of Shareholders. He is Chairman and Chief Executive of Zolenza AG, an investment and advisory firm based in Zug, Switzerland. He brings with him over 40 years of experience in corporate governance and finance. For over 30 years, Geoffery Merszei served in a number of senior management positions at The Dow Chemical Company, the last being Executive Vice President (EVP) of The Dow Chemical Company, President of Dow EMEA and Chairman of Dow Europe before retiring in 2013. From 2001 to 2005, Geoffery Merszei left Dow to be the EVP and CFO of Alcan Inc., and returned to Dow in 2005 as EVP, CFO and a member of the Board of Directors of The Dow Chemical Company. Geoffery Merszei previously served as a Board member of the Chemical Financial Corporation and Chemical Bank and the Swiss American Chamber of Commerce. Geoffery Merszei holds a Bachelor of Arts degree in Economics from Albion College, Michigan, USA.

Other activities and vested interests

Geoffery Merszei is a Board member of Clariant International Ltd. and of EuroChem Group AG, Switzerland.



David Metzger

1969, Swiss and French citizen
Member of the Board of Directors
Member of the Audit & Finance Committee

Professional background and education

David Metzger was elected to the Board of Directors at the 2016 Annual General Meeting of Shareholders. He serves as Managing Director Investments of Witel Ltd, Zurich (former Renova Management Ltd). Prior to Witel Ltd, David Metzger worked for Good Energies, a highly renowned renewable-energy fund, where he was an investment executive, and also served as CFO and Board member of several portfolio companies. Before Good Energies, he was a Senior Manager at Bain & Company, focusing on strategy and private equity. David Metzger holds a Master's degree in Business Economics from the University of Zurich, Switzerland, and an MBA from INSEAD, Fontainebleau, France.

Other activities and vested interests

David Metzger is a Board member of Octo Telematics Ltd.



Alexey V. Moskov

1971, Cypriot and Russian citizen
Member of the Board of Directors
Member of the Human Resources Committee

Professional background and education

Alexey V. Moskov was elected to the Board of Directors at the 2016 Annual General Meeting of Shareholders. In 2004, he was appointed Chief Operating Officer of Witel Ltd, Zurich (former Renova Management Ltd). Prior to Witel Ltd, he served on the Board of Directors of OAO NGK Slavneft and worked in diverse managerial positions at Tyumen Oil Company TNK-BP. Alexey V. Moskov holds a Master's degree in Engineering and Development from the Moscow State Railway University (Technical Cybernetics Department), Moscow, Russia.

Other activities and vested interests

Alexey V. Moskov is a Board member of Witel Ltd, Zurich.

BOARD OF DIRECTORS

The rules and regulations governing the organization and duties of the Board of Directors of OC Oerlikon Corporation AG, Pfäffikon are to be found in the Swiss Code of Obligations, the Articles of Association of OC Oerlikon Corporation AG, Pfäffikon and the Organizational and Governance Rules of OC Oerlikon Corporation AG, Pfäffikon.

Members of the Board of Directors

In the year under review, the Board of Directors of OC Oerlikon Corporation AG, Pfäffikon was composed of Prof. Dr. Michael Süss (Chairman), Gerhard Pegam (Vice Chairman), Dr. Jean Botti, Geoffery Merszei, David Metzger and Alexey V. Moskov. The six Board members were all reelected by the Annual General Meeting of Shareholders on April 10, 2018 for a term of office of one year.

In the three financial years preceding the reporting period, the members of the Board of Directors were not involved in the executive management of OC Oerlikon Corporation AG, Pfäffikon or any other Group company. They also do not have any significant business connections with companies of the Oerlikon Group.

Other Activities and Vested Interests

Regarding the activities of the members of the Board of Directors in governing and supervisory bodies of important Swiss and foreign organizations, institutions and foundations under private and public law, permanent management and consultancy functions for important Swiss and foreign interest groups, and official functions and political posts, see page 60 et seq.

Number of Permitted Mandates

Pursuant to Art. 32 of the Articles of Association, no member of the Board of Directors may hold more than four additional mandates in the supreme governing body of listed companies and ten additional mandates in the supreme governing body of legal entities that are required to be registered in the commercial register or a compara-

ble foreign register. Not subject to these limitations are (1) mandates in inactive companies and in companies that are controlled by OC Oerlikon Corporation AG, Pfäffikon or which control OC Oerlikon Corporation AG, Pfäffikon and (2) mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations, whereby no member of the Board of Directors shall hold more than ten such mandates. Mandates in different legal entities that are under joint control are deemed one mandate.

Elections and Terms of Office

Board members are elected annually by the General Meeting of Shareholders for a term of one year and are eligible for reelection; a “year” means the period from one ordinary General Meeting of Shareholders to the completion of the next. In the event of elections for replacement or elections of additional members during the year, the period until the completion of the next ordinary General Meeting of Shareholders shall be deemed to constitute a year. Each member of the Board of Directors shall be elected individually. Only persons who have not completed their 70th year of age on the election date are eligible. The General Meeting of Shareholders may, under special circumstances, grant an exception to this rule and may elect a member of the Board of Directors for one or several terms of office provided that the total number of these additional terms of office does not exceed three.

Composition of the Board of Directors

Name (nationality)	Domicile	Position	Age	Joined	Term expires	
Prof. Dr. Michael Süss (DE)	DE	Chairman	55	2015	2019	Non-executive
Gerhard Pegam (AT)	DE	Vice Chairman	56	2010	2019	Non-executive
Dr. Jean Botti (FR)	US	Member	61	2016	2019	Non-executive
Geoffery Merszei (CAN)	CH	Member	67	2017	2019	Non-executive
David Metzger (CH/FR)	CH	Member	49	2016	2019	Non-executive
Alexey V. Moskov (CY/RU)	CH	Member	47	2016	2019	Non-executive

Internal Organizational Structure

The Board of Directors is the ultimate supervisory body of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group. It is responsible for the overall management, oversight and control of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group, determines the Group strategy and oversees the CEO. It sets forth guidelines on the general and strategic direction of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group and periodically reviews their implementation.

The Board of Directors shall consist of at least three but not more than seven Board members, the majority of whom should be independent. In general, a Board member shall be deemed to be independent if, during the three years immediately prior to taking up office, he was neither a member of the executive management of OC Oerlikon Corporation AG, Pfäffikon, the Oerlikon Group, an Oerlikon Group company or an audit firm of any of them, nor close to any of the latter, and had no significant business relations, whether directly or indirectly, with the Oerlikon Group. Should the Board of Directors exceptionally assign certain executive tasks for a limited period of time to one of its Board members, such assignment alone shall, as a rule, not by itself qualify such Board member as a dependent member of the Board of Directors.

The Chairman of the Board of Directors shall ensure that the Board of Directors may and does effectively carry out its superintendence and oversight role on an informed basis. He shall endeavor, in close contact with the CEO, to provide the Board of Directors with optimal information regarding the operating activities of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group. Together with the CEO, the Chairman shall perform a leadership role in the implementation of the strategic orientation of the Group, as set out by the Board of Directors on a collegial basis, and shall represent OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group in relations with important shareholders, clients, further stakeholders and the general public.

The Chairman shall convene, prepare and chair Board meetings and may convene meetings of the Board of Directors' Committees. He shall coordinate the work of the Board of Directors and the Board of Directors' Committees, and shall ensure that Board members receive in a timely manner all information necessary to perform their duties. In cases of uncertainty, he shall delineate authorities between the Board of Directors, its Committees and the CEO, unless the entire Board of Directors intends to address the matter.

The Board of Directors may at any time create committees from among its members to assist it in the performance of its duties. These committees are permanent advisory groups supporting the Board of Directors with their particular expertise. Unless expressly stated in the Organizational and Governance Rules, the Chart of Competences or the relevant committee's rules and regulations, they shall not have any authority to decide matters in lieu of the Board of Directors. All cases in which the currently existing committees do in fact have authority to decide matters in lieu of the Board of Directors will be specified hereinafter. They may prepare, review and investigate matters of relevance within their field of expertise and submit proposals to the Board of Directors for deliberation, but must not themselves take resolutions beyond recommendations, proposals or motions to be submitted to the Board of Directors for deliberation.

There are currently three permanent Committees of the Board of Directors, namely the Audit & Finance Committee (AFC), the Human Resources Committee (HRC) and the Strategy Committee (SC).

Membership of these Committees in the year under review was as follows:

Composition of Committees of the Board of Directors

Name (nationality)	Audit & Finance Committee (AFC)	Human Resources Committee (HRC)	Strategy Committee (SC)
Prof. Dr. Michael Süss (DE)		Chairman	Chairman
Gerhard Pegam (AT)	Member	Member	Member
Dr. Jean Botti (FR)			Member
Geoffery Merszei (CAN)	Chairman		
David Metzger (CH/FR)	Member		
Alexey V. Moskov (CY/RU)		Member	

Audit & Finance Committee (AFC)

The AFC is a permanent committee of the Board of Directors within the meaning of Art. 716a para. 2 of the Swiss Code of Obligations. As a rule, the AFC shall be composed of at least three members of the Board of Directors. Members of the AFC are not eligible if they perform any executive management duties within the Oerlikon Group while in office, or have significant business relations with OC Oerlikon Corporation AG, Pfäffikon or the Oerlikon Group, or have been members of the Executive Committee in the preceding three years. They must by all means have the degree of independence required by the Swiss Code of Best Practice for Corporate Governance, as amended from time to time. The majority of AFC members, including its Chairman, shall have experience in finance and accounting and be familiar with internal and external auditing. As a separate advisory group, independent from the Executive Committee and the CEO, the AFC shall advise the Board of Directors and exclusively follow the Board of Directors' instructions.

The AFC's purpose is to facilitate the Board's ability to fulfill its duties regarding OC Oerlikon Corporation AG, Pfäffikon and all its subsidiaries. Its responsibilities include assisting the Board in monitoring the adequacy of processes and the integrity of:

- OC Oerlikon Corporation AG, Pfäffikon's financial statements.
- OC Oerlikon Corporation AG, Pfäffikon's internal controls.
- OC Oerlikon Corporation AG, Pfäffikon's compliance with legal and regulatory requirements.
- OC Oerlikon Corporation AG, Pfäffikon's External Auditor's performance, qualification and independence (incl. review of the audit work plan and the compensation).
- OC Oerlikon Corporation AG, Pfäffikon's internal audit department's performance.
- OC Oerlikon Corporation AG, Pfäffikon's risk management policies, capital structure and funding requirements.

The AFC may prepare, review or investigate matters of relevance within its responsibilities and submit relevant proposals to the Board of Directors for deliberation, but must not itself take resolutions beyond recommendations, proposals or motions to be submitted to the Board of Directors for deliberation. The AFC has no authority to decide matters in lieu of the Board of Directors.

The organization, detailed responsibilities, functioning and reporting of the AFC are stipulated in the Rules and

Regulations of the AFC published on Oerlikon's website www.oerlikon.com/en/investors/corporate-governance/.

Human Resources Committee (HRC)

As a rule, the HRC shall be composed of at least three members of the Board of Directors. Members of the HRC are not eligible if they perform any executive management duties within the Oerlikon Group while in office, or have significant business relations with OC Oerlikon Corporation AG, Pfäffikon or the Oerlikon Group, or have been members of the Executive Committee in the preceding three years. In all cases, they must have the degree of independence required by the Swiss Code of Best Practice for Corporate Governance, as amended from time to time.

The HRC supports the Board of Directors with regard to matters related to human resources, including compensation policies, performance assessment, appointments and succession planning and other general topics related to human resources.

The HRC shall in particular support the Board of Directors in establishing and reviewing the Group's compensation strategy and in preparing the proposals to the General Meeting of Shareholders regarding compensation of the members of the Board of Directors and of the Executive Committee, and may submit proposals to the Board of Directors in other compensation-related issues. Furthermore, the HRC approves the Annual Pay Plan for the Group (incl. general salary increases), the Group-wide compensation policies for nonmanagerial staff, the objectives and performance contracts of all members of the Executive Committee other than the CEO, the eligibility in equity programs and the allocation of equity instruments. Other than that, the HRC has no authority to decide matters in lieu of the Board of Directors.

The organization, detailed responsibilities, functioning and reporting of the HRC are stipulated in the Rules and Regulations of the HRC published on Oerlikon's website www.oerlikon.com/en/investors/corporate-governance/.

Strategy Committee (SC)

As a rule, the SC is composed of at least three members of the Board of Directors. All but one must be independent from the Oerlikon Group and not performing any executive management duties within the Oerlikon Group while in office, not have significant business relations with OC Oerlikon Corporation AG, Pfäffikon or the Oerlikon Group and not have been a member of the Executive Committee in the preceding three years.

The SC monitors that Oerlikon's strategy is properly implemented and complied with by the Executive Committee and all other management levels of the Oerlikon Group. Furthermore, it ensures that the Board of Directors becomes aware on a timely basis of changing trends, technologies, markets, habits and terms of trade that could jeopardize Oerlikon's strategy.

The SC may prepare, review or investigate matters of relevance within its responsibilities and submit relevant proposals to the Board of Directors for deliberation, but must not itself take resolutions beyond recommendations, proposals or motions to be submitted to the Board of Directors for deliberation. The SC has no authority to decide matters in lieu of the Board of Directors.

The organization, detailed responsibilities, functioning and reporting of the SC are stipulated in the Rules and Regulations of the SC published on Oerlikon's website www.oerlikon.com/en/investors/corporate-governance/.

Work Methods of the Board of Directors and its Committees

The Board of Directors meets at the invitation of its Chairman at least four times a year (usually once in February/March, once in June/July, once in September/October and once in November/December) or more often if necessary. The members of the Executive Committee attend the meetings of the Board of Directors by invitation. Each Board member and the CEO may request the Chairman to convene a Board meeting by stating the reasons for such a request.

In 2018, nine physical Board meetings were held, whereof six were ordinary Board meetings (average duration: seven hours) and four were Board workshops (average duration: approximately two days). The main topics of the workshops were strategy (in particular digital roadmap), human resources and business excellence/innovation. In addition, the Board held eight telephone conferences (average duration: 40 minutes). The members of the Executive Committee were invited to all meetings, workshops and conference calls of the Board of Directors; an external advisor participated in one Board meeting.

The members of the HRC are elected by the General Meeting of Shareholders, whereas the Chairman of the HRC is appointed by the Board of Directors at the proposal of the Chairman of the Board. The members of the other committees, i.e. the AFC and the SC, as well as their respective Chairmen, are elected by the Board of Directors at the proposal of the Chairman of the Board. Their respective terms of office correspond to their terms

of office as a Board member. Those Board members who are not members of a Committee have the right to attend Committee meetings with consultative vote. As a rule, the Company's CFO, External Auditor, Head of Group Accounting & Reporting and Head of Internal Audit (who is also the secretary of the AFC) should attend the meetings of the AFC, the CEO and the CHRO the meetings of the HRC, and the CEO the meetings of the SC. Additional persons (e.g. other members of the Executive Committee or Heads of Corporate Functions) may be invited, if required. At every Board meeting, each Committee Chairman provides the Board of Directors with an update on the current activities of his Committee and important Committee issues.

The AFC and the SC convene by invitation of their respective Chairman as often as business requires, but at least four times annually (meetings of the SC can be replaced by strategy meetings of the full Board, if appropriate). The HRC meets at the invitation of its Chairman at least three times a year, or more often if necessary.

In 2018, there were six meetings of the AFC, lasting on average three hours and ten minutes. The members of the AFC participated in the meetings along with the CFO, representatives of the Corporate Functions concerned (in particular Group Accounting & Reporting, Group Controlling and Group Internal Audit). The external auditors (PricewaterhouseCoopers AG) took part in all six AFC meetings. In 2018, the HRC held three meetings, lasting on average four hours and ten minutes, the SC three meetings, lasting on average four hours and twenty minutes. In the meetings of the HRC the members of the HRC participated along with the CEO and the CHRO, in the meetings of the SC the members of the SC along with the members of the Executive Committee.

Definition of Areas of Responsibility

Pursuant to Art. 716b of the Swiss Code of Obligations and Art. 22 para. 3 of the Articles of Association, the Board of Directors has in principle delegated the operational management of the business of OC Oerlikon Corporation AG, Pfäffikon and of the Oerlikon Group to the CEO. The scope of tasks for which the Board of Directors bears responsibility essentially encompasses those inalienable and non-delegable duties defined by law. These include:

- The ultimate direction of the business of OC Oerlikon Corporation AG, Pfäffikon and issuing of the relevant directives.
- Laying down the organization of OC Oerlikon Corporation AG, Pfäffikon.

- Formulating accounting procedures, financial controls and financial planning.
- Nominating and removing persons entrusted with the management and representation of OC Oerlikon Corporation AG, Pfäffikon and regulating the power to sign for OC Oerlikon Corporation AG, Pfäffikon.
- The ultimate supervision of those persons entrusted with management of OC Oerlikon Corporation AG, Pfäffikon with particular regard to adherence to law, to the Articles of Association and to the regulations and directives of OC Oerlikon Corporation AG, Pfäffikon.
- Issuing the Annual Report and the Compensation Report, preparing for the General Meeting of Shareholders and carrying out its resolutions.
- Informing the court in case of indebtedness.
- Determining the strategic direction and approving the strategy for the Oerlikon Group and its Segments.

According to the company's Organizational and Governance Rules, it is also incumbent upon the Board of Directors to decide on (1) overall budget planning and capital expenditures off budget of at least CHF 100 million; (2) acquisitions and divestments of strategic relevance or such transactions involving an enterprise value of at least CHF 25 million or a series of such transactions involving an enterprise value of at least CHF 100 million on an aggregated basis; (3) the establishment, liquidation or restructuring of strategy-relevant companies or businesses; (4) the purchase and sale of real estate with a financial value exceeding CHF 25 million; and (5) the initiation and settlement of civil law litigation with amounts in dispute of more than CHF 50 million.

The CEO is responsible for all issues relating to the operational management of the business of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group, to the extent that such decisions are not expressly reserved for the Board of Directors or delegated to individual Group companies. The Executive Committee is the supreme advisory body advising the CEO with respect to the management of the business of OC Oerlikon Corporation AG, Pfäffikon and the Oerlikon Group. The Executive Committee is chaired by the CEO. In the case of an Executive Committee member dissenting from a decision of the CEO, the member may immediately request the CEO to submit the matter to the Chairman of the Board of Directors for his recommendation. However, the CEO will take the final decision on all issues relating to the operational management.

More information regarding the areas of responsibility of the Board of Directors, the CEO and the Executive

Committee can be found in the company's Organizational and Governance Rules published on Oerlikon's website www.oerlikon.com/en/investors/corporate-governance.

Information and Control Instruments vis-à-vis the Executive Committee

The Board of Directors has a wide array of instruments that enable it to perform the tasks of monitoring strategic and operational progress as well as risk exposure. The instruments at its disposal include the following elements:

The Board of Directors' Right of Access to and the CEO's Duty of Information

Each member of the Board of Directors receives a copy of the monthly report, which includes i.a. an overview of the Group performance, the financials of the Group, the Segments and the Business Units, as well as an M&A project update. The CEO reports at Board of Directors' meetings on the day-to-day operations, operating results and important business matters. Extraordinary occurrences (if any) must be immediately notified to the Chairman of the Board of Directors and to the Chairman of the relevant Committee. With the approval of the Chairman, members of the Board of Directors may also access specific business records and/or obtain information from any employees of the Oerlikon Group. The Board of Directors and its Committees regularly take advice from members of the Executive Committee in order to ensure that the most comprehensive and up-to-date information on the state of the company and all relevant elements are included in its decision-making. Additionally, Heads of Business Units and Corporate Functions or other experts may be consulted on a case-by-case basis in order to gain detailed and comprehensive information on complex matters.

Accounting & Reporting

The Group Accounting & Reporting function is responsible for the Group's Management Information System (MIS), which links all major Group companies and production sites directly with Group headquarters to provide the Executive Committee and the Board of Directors with an institutionalized Group reporting on a monthly basis. This is consolidated to show the performance of each Business Unit and the Group and explains the reasons for any deviations from the key performance indicators. The Board of Directors may demand access to the relevant details at any time. Furthermore, Group Accounting & Reporting ensures compliance with the International Financial Reporting Standards (IFRS).

Controlling

With regard to mid-term controlling, the key instruments

are specific analyses prepared by the Segments, as well as annually updated five-year business plans on the Group and Segment level. In terms of short-term controlling, the Board of Directors receives the annual financial plan (budget) as well as periodic financial forecasts for the current fiscal year. In addition to the business updates provided by the CEO or CFO at the Board of Directors and AFC meetings, the Board of Directors and the Executive Committee receive a monthly actual/target analysis of the key financials to assist them in the assessment of the Segments' performance and potential corrective measures. Furthermore, the Executive Committee holds regular business review meetings on the Group and Segment level, examining current performance and outlook, market competitive dynamics, Segment product portfolios and scenarios explored to improve Segment value creation.

Risk Management

Oerlikon has a risk management system in place with which the enterprise-wide risk management is centrally managed and decentrally implemented. A key component of it is the generation and semiannual update of risk profiles for the Group as a whole, as well as for its individual Business Units. All types of risks, internal and external, such as market, credit and operational risks are considered, including compliance and reputational aspects, and actions are defined in order to mitigate the risk exposure. Internal risk reporting to the Executive Committee, the AFC and the Board of Directors is performed semiannually based on consolidated risk reports. On this basis, the Board of Directors monitors the risk profile of the Group and the risk mitigation actions. For further information regarding risk management, see page 84 et seqq. ("Risk Management and Compliance") and page 139 et seqq. ("Note 19 to the consolidated financial statements").

Compliance

There is a Group-wide compliance function that focuses on compliance within the legal, regulatory spectrum and internal regulations, including the Group's ethical standards, by actively invoking such preventive measures as training, communication and consulting. The foundation of this program was laid and enhanced between 2009 and 2012, with a focus on key elements of a state-of-the-art compliance program, including a written Code of Conduct, compliance risk assessment analysis and the development of an anticorruption training program. Since that time, and this remains a key focus, Oerlikon enhances and promotes behavioral aspects of leadership awareness while dealing with integrity issues. Oerlikon has done so by implementing and revising its business part-

ner integrity screening process and by introducing and establishing an antitrust compliance program. In 2015 and 2016, the compliance program emphasized the establishment of data compliance to enhance all aspects of data privacy and information security. In 2017, in particular, Compliance prepared for the implementation of the EU's General Data Protection Regulation (GDPR), which came into effect on May 25, 2018.

For further information regarding compliance, see page 86 ("Risk Management and Compliance").

Internal Audit

Internal audit is an independent and objective assurance activity that assists Oerlikon in accomplishing its objectives by bringing a systematic and disciplined approach to evaluating and improving the effectiveness of risk management, controls and governance processes. The Head of Internal Audit reports functionally to the Chairman of the AFC and administratively to the CFO. The AFC approves the budget, the resources and the internal audit plan. Internal Audit closely coordinates its plans and activities with the external auditor. Internal Audit projects are selected on the basis of a Group-wide risk assessment in coordination with Group Risk Management. The annual audit plan strikes the appropriate balance between operational, financial, compliance and follow-up reviews. The results of internal audits are communicated to the responsible management team, the Executive Committee, the AFC, the Chairman of the Board and the external auditors through formal audit reports. In 2018, Internal Audit conducted 43 internal audits.

External Audit

The external auditor examines the books and accounts of OC Oerlikon Corporation AG, Pfäffikon and those of the Oerlikon Group, coordinating its audit plan with that of Group Internal Audit. On completion of the audit, the external auditor prepares a comprehensive auditor's report to inform the Audit & Finance Committee and the Board of Directors about the detailed findings of the audit, and prepares a summary thereof for the Annual General Meeting of Shareholders. In 2018 the external auditors participated in all six Audit & Finance Committee Meetings. Since 2016, the external audit has been carried out by PricewaterhouseCoopers AG. For further information regarding the external auditors, see page 72.

The continuing independence of the external auditors is ensured by written representations provided by the auditors and also by the monitoring of audit fees in relation to total fees for all services paid by Oerlikon to the audit firm.

Leadership and Accountability

THE OERLIKON EXECUTIVE COMMITTEE

Jürg Fedier

1955, Swiss citizen
Executive Committee Member
Chief Financial Officer (CFO)*

Dr. Roland Fischer

1962, German citizen
Executive Committee Member
Chief Executive Officer (CEO)*
Segment CEO Surface Solutions*



Anna Ryzhova

1979, Russian citizen
Executive Committee Member
Chief Human Resources Officer (CHRO)*



Dr. Helmut Rudigier

1955, Austrian citizen
Executive Committee Member
Chief Technology Officer (CTO)*



* A description of the role and authority of the Members of the Executive Committee can be found in the company's Organizational and Governance Rules, published on the Oerlikon website at www.oerlikon.com/en/investors/corporate-governance/.

DR. ROLAND FISCHER

Professional Background and Education

Dr. Roland Fischer was appointed Chief Executive Officer effective March 1, 2016. Prior to Oerlikon, Dr. Fischer held senior management positions at Siemens AG, the most recent as CEO of the Power and Gas Division, from 2013 to 2015. Between 2011 and 2012, Dr. Fischer served as CEO of the Fossil Power Generation Division, and from 2008 to 2011, he was CEO of the Fossil Power Generation Business Unit – Products, Siemens, Germany. Before joining Siemens, Dr. Fischer spent 18 years at MTU Aero Engines AG in diverse management positions in Germany and Malaysia, lastly serving as Senior Vice President, Defence Programs, in Germany. Dr. Fischer graduated from the University of Stuttgart, Germany, with a degree in Aeronautical Engineering, and holds a Ph.D. (Dr. Ing.) in Aeronautical Engineering from the University of Karlsruhe, Germany.

Other Activities and Vested Interests

None.

JÜRIG FEDIER

Professional Background and Education

Jürg Fedier was appointed Chief Financial Officer effective January 1, 2009. From 2007 to 2008, he acted as CFO of Ciba, Switzerland. Between 2006 and 2007, he was Head of Finance of Dow Europe and a member of the Executive Board. From 2002 to 2006, Jürg Fedier served as Vice President Finance for Dow Chemical, Performance Chemicals, USA, and between 2000 and 2002 as Global Business Finance Director for Dow Chemical, Thermosets. From 1978 to 2000, he filled several management positions with Dow Chemical in the USA and in Asia. Jürg Fedier holds a Commercial Diploma from the College of Commerce in Zurich, Switzerland, and completed international executive management programs at IMD, Lausanne, Switzerland, and the University of Michigan, USA.

Other Activities and Vested Interests

Jürg Fedier is a member of the Boards of Directors of Dätwyler Holding Inc. and Ascom Holding Inc.

DR. HELMUT RUDIGIER

Professional Background and Education

Dr. Helmut Rudigier was appointed Group Chief Technology Officer effective November 1, 2017. He joined Oerlikon Balzers in 1986 as R&D Project Manager after completing his postdoctoral research on low-temperature physics at ETH Zurich. Since then, he was promoted to diverse research and management roles, including Manager R&D Balzers Thin Films, Manager Production Site Balzers, Manager R&D Division Optics, Business Development Telecommunication (fiber optics), CTO of Oerlikon Balzers and as CTO of the Surface Solutions Segment. Dr. Rudigier represents Oerlikon on the Committee for Research and Technology of the Liechtenstein Chamber of Commerce and Industry. He holds a Ph.D. from the Institute of Solid State Physics at ETH Zurich, Switzerland, and has completed executive management programs at the University of California, Los Angeles, USA, and at IMD, Lausanne, Switzerland.

Other Activities and Vested Interests

Dr. Rudigier is a member of the Industrial Advisory Board of SFB TR 87 (Transregional Collaborative Research Center), a DFG (German Research Foundation) funded collaboration between RWTH Aachen, Ruhr University Bochum and the University of Paderborn. Dr. Rudigier also lectures at the NTB Interstate University of Applied Sciences of Technology in Buchs, St. Gallen, Switzerland.

ANNA RYZHOVA

Professional Background and Education

Anna Ryzhova was appointed Chief Human Resources Officer effective October 10, 2016. Ms. Ryzhova has over 15 years of experience in leading HR functions, 13 of which were at the Renova Group in senior HR executive roles. Most recently, Anna Ryzhova was Chief Human Resources Officer at Witel Ltd (former Renova Management Ltd, Zurich), Switzerland. From 2010 to 2015, she served as HR and Corporate Relations Director at the Renova Group Corporate Center in Moscow, Russia. Anna Ryzhova holds a Master's degree in Economics from the National Research University Higher School of Economics in Moscow and an Executive MBA from IMD, Lausanne, Switzerland.

Other Activities and Vested Interests

None.

EXECUTIVE COMMITTEE

Management Philosophy

The Oerlikon Group's strategy is to become a powerhouse in surface solutions and advanced materials. In line with the strategy, the Group has started its transformation process by streamlining and centralizing relevant and specific management and operational functions, particularly between Group headquarters and the Surface Solutions Segment. Group headquarters still determines strategic guidelines and sets operational targets, and monitors these with effective management processes and controlling while the Segments and Business Units continue to be responsible for operations and for delivering on the agreed strategy and targets within given guidelines.

Members of the Executive Committee

On December 31, 2018, the Executive Committee consisted of Dr. Roland Fischer, CEO (since March 1, 2016) and Segment CEO of Solutions Segment (since August 2, 2016), Jürg Fedier, CFO (since January 1, 2009), Anna Ryzhova, CHRO (since October 10, 2016) and Dr. Helmut Rudigier, CTO (since November 1, 2017).

With the exception of Dr. Helmut Rudigier, the members of Oerlikon's Executive Committee did not previously carry out tasks for OC Oerlikon Corporation AG, Pfäffikon or any other Group company. For further information, see page 70.

Other Activities and Vested Interests

Regarding the activities of the members of the Executive Committee in governing and supervisory bodies of important Swiss and foreign organizations, institutions and foundations under private and public law, as well as permanent management and consultancy functions for important Swiss and foreign interest groups and official functions and political posts, see page 70.

Number of Permitted Mandates

Pursuant to Art. 32 of the Articles of Association, no member of the executive management may hold more than four additional mandates in the supreme governing

body of listed companies, and more than ten additional mandates in the supreme governing body of legal entities that are required to be registered in the commercial register or a comparable foreign register. Not subject to these limitations are (1) mandates in inactive companies and in companies that are controlled by OC Oerlikon Corporation AG, Pfäffikon or that control OC Oerlikon Corporation AG, Pfäffikon and (2) mandates in associations, charitable organizations, foundations, trusts and employee welfare foundations, whereby no member of the executive management may hold more than ten such mandates. Mandates in different legal entities that are under joint control are deemed one mandate. According to internal policies, Board memberships in third-party companies require for the CEO to obtain the approval of the Chairman of the Board, and for the other Executive Committee Members to obtain the approval of the CEO.

Management Contracts

There are no management contracts with third parties.

SHAREHOLDERS' PARTICIPATION

Voting Rights Restrictions and Representation

The right to vote and the other member rights may only be exercised by shareholders or beneficiaries who are registered in the share register. Any shareholder may appoint the independent proxy, another registered shareholder with written authorization or his legal representative to act as proxy to represent his shares at the General Meeting of Shareholders. The Chairman decides whether to recognize the power of attorney. Regarding the written or electronic issuing of the proxy and of instructions to the independent proxy, the Articles of Association do not contain any provisions that deviate from the legal provisions. Entitled to vote in the General Meeting of Shareholders are the shareholders whose names are inscribed into the share register as shareholders with voting rights at the cut-off date to be determined by the Board of Directors (as a rule, the cut-off date is six working days before the General Meeting of Shareholders). Otherwise, there are no restrictions on voting rights.

Composition of the Executive Committee

Name	Nationality	Age	Position	Joined	In position since
Dr. Roland Fischer	DE	56	CEO	2016	01.03.2016
Jürg Fedier	CH	63	CFO	2009	01.01.2009
Anna Ryzhova	RU	39	CHRO	2016	10.10.2016
Dr. Helmut Rudigier	AT	63	CTO	2017	01.11.2017

Statutory Quorums

The Articles of Association of OC Oerlikon Corporation AG, Pfäffikon provide for no specific quorums that go beyond the provisions of corporate law.

Convocation of the Annual General Meeting of Shareholders

Supplemental to the statutory legal provisions, the company's Articles of Association provide for the convocation of an Annual General Meeting of Shareholders by a one-off announcement in the Swiss Official Gazette of Commerce.

Inclusion of Items on the Agenda

The Articles of Association provide that shareholders with a holding of CHF 1 000 000 nominal value are entitled to request that an item be included on the agenda, provided that their requests are submitted in writing and include the actual agenda item and the actual motions; this request is to be made at the latest ten weeks prior to the date of the General Meeting of Shareholders.

Inscriptions into the Share Register

The 46th General Meeting of Shareholders will be held on April 9, 2019, in the KKL Luzern (Culture and Convention Center, Lucerne). Entitled to vote in the General Meeting of Shareholders are those shareholders whose names are inscribed into the share register as shareholders with voting rights at the cut-off date to be determined by the Board of Directors.

Right to Inspect the Minutes of the Annual General Meeting of Shareholders

The minutes of the 45th General Meeting of Shareholders held on April 10, 2018, can be viewed on the website at www.oerlikon.com/en/investors/annual-general-meeting-of-shareholders/ and shareholders may also read the minutes at Group headquarters upon prior notice. The minutes of the 2019 Annual General Meeting of Shareholders will be published on the Oerlikon website as soon as they have been compiled.

CHANGES OF CONTROL AND DEFENSE MEASURES

Duty to Make an Offer

In accordance with the Articles of Association of OC Oerlikon Corporation AG, Pfäffikon a person who acquires shares in the company is not required to make a public purchase bid pursuant to Art. 125 para. 3 of the Financial Market Infrastructure Act (opting-out).

Clauses on Changes of Control

There are no change-of-control clauses in agreements and

schemes benefitting Members of the Board of Directors and/or of the Executive Committee, as well as other members of the Oerlikon management.

AUDITORS

Duration of the Mandate and Term of Office of the Lead Auditors

PricewaterhouseCoopers AG was elected by the 43rd Annual General Meeting of Shareholders of April 5, 2016, as auditor of OC Oerlikon Corporation AG, Pfäffikon and the Group for the first time. The auditor is elected by the Annual General Meeting of Shareholders for a one-year term of office. The lead auditor responsible for the mandate, Mr. Stefan Räbsamen, has served in this function since the financial year that ended on December 31, 2016. In accordance with Art. 730a para. 2 of the Swiss Code of Obligations, the lead auditor's term of office is a maximum of seven years.

Auditing Fees

In the calendar year 2018, PricewaterhouseCoopers invoiced the company for CHF 2.6 million in global auditing fees.

Additional Fees

In the calendar year 2018, PricewaterhouseCoopers invoiced the company for CHF 2.0 million in additional services. The additional fees were mainly invoiced for transaction advice services (CHF 0.9 million) and worldwide general and project-specific tax consultancy services (CHF 0.9 million).

Informational Instruments Pertaining to an External Audit

In accordance with Art. 728b para. 1 of the Swiss Code of Obligations, the external auditors provide the Board of Directors, on an annual basis, with a comprehensive report with conclusions on the financial reporting and the internal controlling system as well as the conduct and the result of the audit. Furthermore, the external auditors conduct interim audits during the year, on which they report their findings to the Executive Committee and the AFC.

Once the auditing work has been completed, the AFC assesses the results and findings of the external audit, discusses its assessment with the lead auditor in charge and reports the relevant findings to the Board of Directors. Furthermore, the AFC submits proposals in response to the external auditors' recommendations, objections and other discovered deficiencies, if any, to the Board of Directors for consideration and monitors the implementation of any relevant action decided upon by the Board of Directors.

The Chairman of the AFC meets regularly with the lead auditor and other representatives of the auditing firm. The latter also participate in meetings of the AFC dealing with relevant agenda points. In the reporting year, PricewaterhouseCoopers AG participated in all six meetings of the AFC.

On behalf of the Board of Directors, the AFC evaluates the work done by the external auditors and the lead auditor, based on the documents, reports and presentations issued by them as well as on the materiality and objectivity of their statements. For this, the AFC consults with the CFO and the Head of Group Internal Audit. On an annual basis, the AFC recommends to the Board of Directors the external auditors to be proposed to the General Meeting of Shareholders for election or re-election based on their performance, qualifications and independence. Once per year, the external auditors provide a formal written confirmation that they fulfill the requirements with regard to registration and independence as required by Swiss law and Swiss auditing standards. The assignment of non-audit services to the external auditors that are potentially in conflict with their role and responsibility has to be approved by the Board of Directors based on a recommendation of the AFC.

The fees paid to the external auditors are reviewed on a regular basis and compared with the auditing fees paid by other comparable listed Swiss companies. Auditing fees are negotiated by the CFO, evaluated by the AFC and subject to the approval of the Board of Directors.

Material changes since balance sheet date

The divestment of the Drive Systems Segment that was announced on July 30, 2018 was closed on February 28, 2019.

INFORMATION POLICY

General

Oerlikon provides its shareholders and the capital markets with transparent, comprehensive and timely information on relevant facts and developments, and in a manner that is in line with the principle of equal treatment of all stakeholders, including the public and all actual and potential market participants.

Apart from its detailed Annual Report and Half-Year Report, which are prepared in accordance with the International Financial Reporting Standards (IFRS), Oerlikon publishes its key financial figures and a related commentary for the first and third quarters of its financial year. In this way, Oerlikon increases its communication

and transparency. Additionally, Oerlikon issues press releases on key company news during the year to ensure that shareholders and market participants are informed of significant changes and developments in the company. The company's website, www.oerlikon.com, offers a permanently accessible platform for all current information concerning the company.

As a company listed on SIX Swiss Exchange, OC Oerlikon Corporation AG, Pfäffikon is obligated to disclose price-sensitive information to the public, including all market participants (ad hoc publicity obligation).

The publication medium for corporation notices is the Swiss Official Gazette of Commerce. The Board of Directors may select additional publishing media. Communications to registered shareholders must be sent in writing to the most recent address provided by the shareholders to the company.

Press Releases

Press releases published in 2018, along with previous releases dating back to January 2004, can be accessed on Oerlikon's website at www.oerlikon.com/pressreleases. Those interested in receiving the company's press releases regularly by e-mail can subscribe for the service on www.oerlikon.com/en/company/media/subscribe/registration-for-corporate-news/.

Financial Calendar

For the financial calendar with Oerlikon's 2019 key financial disclosure events, please refer to page 95 under the "Financial Report" section of this Annual Report. The financial calendar, including further details on dates of roadshows, conferences and events, can be found at www.oerlikon.com/en/investors/financial-calendar/.

Contact

Please refer to page 95 under the "Financial Report" section of this Annual Report for contact information for the Oerlikon Group, Investor Relations and Corporate Communications.

Remuneration Report

SHAREHOLDER LETTER

Dear Shareholders

It is my pleasure as Chairman of the Human Resources Committee (HRC) to present to you the 2018 remuneration report of OC Oerlikon Corporation AG, Pfäffikon.

In 2018, the work of the HRC was mainly focused on further developing the people strategy with an emphasis on developing leaders, creating opportunities for engineers and forming high-performance teams. In the area of compensation, small adjustments were made in the remuneration for Board members, and changes to incentive programs were made, which will become effective in 2019. The Short-Term Incentive (STI) program will have a cap of 200% to better conform to corporate governance expectations, and the Long-Term-Incentive (LTI) program will be rebalanced in terms of risks and potential as well as a new peer group that takes the divestment of the drive systems business into account. STI and LTI programs applicable in 2018 have not changed.

The remuneration report for 2018 does not differ in structure and continues to provide a high level of transparency. We continue to show the compensation of the Executive Committee from three perspectives, namely the effective compensation amounts that were paid in 2018, the forward-looking target value amounts that were granted in 2018 and their market value at year-end. These perspectives enable shareholders to better interpret the amounts on which they are voting, that is, the target value amounts granted, and to monitor the relationship between the company's performance and the management's remuneration. In addition, a reconciliation between approved and effective remuneration is provided.

The proposals of the Board of Directors for the binding votes on remuneration will be published with the invitation to the 2019 AGM.

Sincerely



Prof. Dr. Michael Süss

Chairman of the Human Resources Committee

With this remuneration report, Oerlikon meets the requirements of Art. 13 to 16 of the Compensation Ordinance and para. 5 of the Annex to the Corporate Governance Directive (DCG) of SIX Swiss Exchange, governing the disclosure of remuneration systems and compensation paid to members of the Board of Directors and the Executive Committee. Moreover, in regard to remuneration reporting, Oerlikon voluntarily complies with *economiesuisse's* Swiss Code of Best Practice for Corporate Governance.

The Articles of Association include rules on the principles applicable to performance-related pay and to the allocation of equity securities (Art. 30), additional amounts for payments to Executive Committee members appointed after the vote on pay at the AGM (Art. 29) and the vote on pay at the AGM (Art. 28). Details on these rules are available on our website, at the Oerlikon Investor Relations' webpage: www.oerlikon.com/en/investors/corporate-governance/.

Compensation for the Board of Directors and the Executive Committee is made up of various components, which are described in detail in this report. This section discloses a summary of the following aspects for 2018:

- General principles of the compensation policy
- Setting and approving compensation
- Compensation systems and compensation paid or granted to the Board of Directors in 2018
- Compensation systems and compensation paid or granted to the Executive Committee in 2018

COMPENSATION POLICY

Attractive, motivating, fair and simple compensation for all staff is the foundation of Oerlikon's performance-based corporate culture. The compensation systems provide competitive base salaries and attractive incentive schemes. They give equal consideration to individual and company performance, reward excellence and promote an entrepreneurial attitude.

To determine competitive and equitable compensation, Oerlikon uses external and internal benchmarks. The company establishes its external equity by continuously surveying the markets in which it operates, and its internal equity is established by following a Performance Management process. Performance Management is a crucial element in assessing the achievement of expectations and targets in relation to individual and business results.

Determining Compensation

The Human Resources Committee (HRC) supports the Board of Directors in all matters relating to the compensation and Performance Management systems in place at Oerlikon, in particular:

- the compensation policies for members of the Board of Directors, the Executive Committee and Group-wide managerial and non-managerial staff;
- the preparation of the proposals to the AGM regarding the aggregate compensation amounts for the Board of Directors and the Executive Committee;
- the annual pay plan for the Group (including general salary increases);
- the objectives for the CEO and assessment of his performance;
- the performance assessment of Executive Committee members by the CEO.

The compensation policies for the Board of Directors and the Executive Committee require an ongoing review of whether or not the compensation offered is:

- competitive, transparent and fair, by analyzing comparable companies and salary trends in the market;
- commensurate with the company's results and individual performance;
- consistent with Oerlikon's values and long-term strategy.

This review is conducted by the HRC on an annual basis and takes into account data from benchmark providers but no other external consultants. HRC activities are reported to the Board of Directors following each meeting; HRC minutes are shared with all Board members and form the basis for the Board of Directors to approve in:

- December, adjustments to compensation policies, if any, for the Board of Directors, the CEO and the other members of the Executive Committee;
- February, the fixed compensation of the members of the Board of Directors and the Executive Committee for the following year as well as the performance and variable compensation of members of the Executive Committee for the past year;
- February and October, Long-Term Incentive (LTI) grants, i.e. participants in equity programs and share awards allocated to them.

Based on the Compensation Ordinance, the aggregate amounts for compensation of the Board of Directors and the Executive Committee are subject to approval by the AGM. Within these confines, the internal approval and decision processes are as follows:

Approval Process

Decision on	Prepared by	Set by	Approved by
Compensation of members of the Board of Directors, incl. Chairman	Chairman	Human Resources Committee	Board of Directors
Compensation of the CEO, incl. fixed and variable compensation	Chairman	Human Resources Committee	Board of Directors
Compensation of the other members of the Executive Committee, incl. fixed and variable compensation	CEO	Human Resources Committee	Board of Directors
Maximum aggregate amount of - total compensation of the Board of Directors - fixed compensation of the Executive Committee - variable compensation of the Executive Committee	Chairman	Human Resources Committee	Board of Directors

The Chairman of the Board of Directors is present at the meeting when decisions are approved by the Board of Directors, including his own remuneration. In his role as Chairman of the HRC, he is also involved in the determination of Board remuneration, but abstains on decisions regarding his own remuneration. Members of the Board of Directors, other than those of the HRC, do not participate in determining the remuneration of Directors.

The CEO is involved in determining the remuneration of members of the Executive Committee and is present when the Board of Directors approves it, except when concerning his own remuneration.

BOARD OF DIRECTORS

Compensation System

The compensation system applicable to the members of the Board of Directors consists of a fixed cash component and a fixed value of restricted stock units (RSU). The cash component depends on the responsibility, complexity and requirements of the tasks assumed. Each task is remunerated differently and the compensation components are cumulated, depending on the number of tasks assumed by each member, as per the table "Cash Compensation". The level of compensation for each of the components is set by the HRC, taking into account the expenditure of work required from Board and Committee members, and approved by the Board of Directors. The members of the Board of Directors are remunerated for their service from the date of their election and for the duration of their term of office.

Cash Compensation

in CHF 000	Compensation	Expense allowance
Member of the Board of Directors	75	35
Chairman of the Board of Directors	275	
Vice Chair of the Board of Directors	125	
Chairman of a Committee	50	
Member of a Committee	30	

The compensation is reviewed by the HRC on an annual basis and, if necessary, adjusted by the Board of Directors based on a proposal by the HRC, prior to submitting the aggregate amount to a vote at the AGM.

Two adjustments were made in 2018: A fee for Vice Chair in the amount of CHF 50 000 was introduced to recognize the additional efforts in supporting the Chairman. The expense allowance was increased to CHF 35 000 while the practice of compensating the cost of social security contributions was discontinued.

The value of the RSU is fixed (CHF 125 000 per Board member and CHF 280 000 for the Chairman of the Board). The number of RSU is determined by the share price at grant date. RSU are blocked from the grant date on the day of the AGM until the following AGM, at which time they are converted into Oerlikon shares. For Directors resigning their mandate prior to the end of the term, the number of RSU converted into Oerlikon shares may be reduced at the sole discretion of the Board of Directors. The RSU program is financed with treasury shares.

No changes to the equity compensation for members of the Board of Directors have been made since 2008.

Compensation 2018

No member of the Board of Directors served in an executive role in 2018. The Board of Directors consists of six non-executive members, whose total remuneration in 2018 was CHF 2.2 million. Since all components are fixed, no ratio between fixed and variable compensation is presented.

Compensation of non-executive members of the Board of Directors (audited)

in CHF 000	Board of Directors	Strategy Committee	Audit & Finance Committee	Human Resources Committee	Cash	RSU ¹	Other ²	Total compensation 2018	Market value per Dec 31, 2018 ³	Total compensation 2017
Prof. Dr. Michael Süss	C	C		C	375	280	35	690	607	665
Gerhard Pegam	V	M	M	M	201	125	50	376	338	312
David Metzger	M		M		105	125	48	278	241	251
Alexey V. Moskov	M			M	105	125	48	278	241	259
Dr. Jean Botti	M	M			105	125	48	278	241	251
Geoffery Merszei	M		C		125	125	47	297	260	224
Total					1016	905	276	2197	1928	1962
Mandatory Employer Contributions⁴								116	102	104

C(hairperson), V(ice Chairperson), M(ember)

¹ The fair value at grant date of RSU was CHF 15.72.

² Other compensation consists of social security contributions until the AGM 2018, which were paid by OC Oerlikon Corporation AG, Pfäffikon and an expense allowance.

³ The value per year-end is based on a share price of CHF 11.04.

⁴ The Compensation Ordinance requires the disclosure of employer contributions to social security.

Members of the Board of Directors did not receive any fees or other remuneration for additional services to OC Oerlikon or its subsidiaries in the 2018 business year. Neither OC Oerlikon nor its subsidiaries granted any guarantees, loans, advances or credit facilities to members of the Board of Directors or related parties in 2018 or 2017.

No compensation was paid to any former members of the Board of Directors of OC Oerlikon Corporation AG,

Pfäffikon or a Group company or related parties in 2018 or 2017.

The AGM on April 11, 2017 approved a maximum aggregate amount of compensation of the Board of Directors for the term of April 11, 2017, until April 10, 2018, of CHF 2.1 million. The following table shows the reconciliation between the effective Board compensation and the amount approved for this period.

April 11, 2017–April 10, 2018

in CHF 000	Cash compensation	RSU	Other	Total	Approved amount 2017–2018
	1030	905	99	2034	2100
Full Year 2017				1962	
Full Year 2018				2197	
Total 2017/2018				4160	
Mandate 2016/17 – Jan 2017 – Apr 2017 ¹				227	
Mandate 2016/17 – Apr 2017 – Apr 2018				2034	
Mandate 2017/18 – Apr 2018 – Dec 2018				1899	
Total 2017/2018				4160	

¹ This amount includes the grant of CHF 125000 provided to Hans Ziegler, who resigned his mandate in November 2016 and which has not yet been vested.

MANAGEMENT

Compensation System

The compensation system for the Executive Committee consists of fixed and variable components. The fixed component entails a base salary commensurate with the role and local market level and, depending on local practice, includes allowances and fringe benefits. The variable component entails a performance-related annual cash bonus (Short-Term Incentive, STI) and a three-year performance-related equity program (Long-Term Incentive, LTI). The mix between these components is defined by the profile, strategic impact and pay level of the role, as described hereinafter.

In 2018, the proportion of variable compensation of members of the Executive Committee continued to be between 50 % and 100 % of the base salary for the target STI and between 34 % and 150 % of the base salary for the target LTI.

No members of the Executive Committee were present when decisions on their respective compensation were made.

Base Salary

The base salary is determined primarily by the executive's tasks, responsibilities, skills and managerial experience, as well as market conditions, and is paid in cash. It was benchmarked with data from Willis Towers Watson and Mercer against comparable positions in companies of comparable size in terms of revenue, employees and geographical scope that are operating in general industry in some of the major markets in which we operate – including Switzerland, Germany, Italy and the USA. Willis Towers Watson and Mercer also provide other compensation services to the Oerlikon Group and its subsidiaries.

Short-Term Incentive (STI) Program

The Oerlikon STI program is a simple and clear annual cash bonus aimed at motivating managers and specialists to focus their efforts on specific financial and individual objectives. It helps them to align their efforts, promotes initiative and contributes to the performance of individuals and the company.

The STI program for the Executive Committee consists of financial and individual objectives. Financial objectives include sales growth, EBITDA, operating free cash flow and return on net assets (RONA) and account for 80 % of the target bonus, while individual objectives for 20 %.

Financial objectives are set for each organizational level

(Group, Segment, Business Unit, etc.) and are aimed at increasing the growth, profitability and cash efficiency of the respective business. Measurements are made in equal parts on the own and next level. The weighted result is multiplied with a modifier of 0.9, 1.0 or 1.1 depending on whether the RONA of the Oerlikon Group is within a competitive range.

Individual objectives focus on medium- and longer-term business objectives such as inorganic growth or people development. The weighted result is multiplied with a modifier of 0.9, 1.0 or 1.1 depending on whether the safety targets of the respective business is within a competitive range.

The Board of Directors approves the financial objectives of members of the Executive Committee at their meeting at year-end for the following year. Individual objectives are approved at the meeting in February.

Financial targets are based on the annual budget and the payout on the actual financial results. A financial result at target corresponds to a payout of 100 % of the target bonus, at the lower threshold 50 %, and below the lower threshold 0 %. No upper threshold exists for financial objectives, while individual objectives are generally capped at 100 % of the target bonus. In certain cases, a specific milestone or individual objective can be rewarded with more.

The HRC monitors the STI performance at each of its meetings during the year and endorses the required accruals, which form the basis of the disclosure below at the December meeting.

Finally, the HRC determines the overall STI payout both for levels exceeding 100 % as well as for levels between 50–90 % based on factual business circumstances and reasonable business judgment in order to achieve a fair result originating from true performance, and makes a recommendation to the Board of Directors for a final decision in February. At this meeting, the HRC also recommends to the Board of Directors the aggregate amount for variable pay components that are submitted to a vote to the AGM for approval.

To better conform to corporate governance practice, an overall payout cap of 200 % is applicable as of 2019.

In 2018, the average payout for the STI 2018 for the Executive Committee is 129 %. The average payout of the STI 2017 reached 140 %.

Long-Term Incentive (LTI) Program

OC Oerlikon is a leading global technology group with a clear strategy of becoming a global powerhouse in surface solutions, advanced materials and materials processing. To implement this strategy successfully, it is vital for the OC Oerlikon Group to attract, motivate and retain key executives. Therefore, the Board of Directors has decided to implement this long-term performance share plan, which is specifically designed to reward the increase in shareholder value.

The LTI program is based on a performance share plan containing three performance dimensions:

- Absolute Total Shareholder Return (aTSR) measures the value created for shareholders and represents 80 % of a grant.
- Relative Total Shareholder Return (rTSR) measures the performance of the Oerlikon share against a group of peer companies and represents 20 % of a grant.
- Dividends reflect the ability to distribute profits or funds to shareholders. Dividend equivalents will be added to the effective payout of a grant.

Total Shareholder Return (TSR) is a standard metric used for measuring stock performance. It is defined as the net change in share price plus any dividend distributions over a period of time. In this case, the performance period is three years.

TSR is measured with a starting value of the volume-weighted average share price (VWAP) over the first 30 trading days of the year and an ending value of the VWAP over the last 30 trading days of the year. Absolute TSR results from the cumulated TSR for each of the three years. Relative TSR results from the average percentile among a comparator group for each of the three years. The peer group is reviewed every year by the HRC and includes Aalberts, American Axle, Bodycote, BorgWarner, Carraro, Dana, GKN, Kennametal, Praxair, Sandvik and Tocalo.

At the start of the program, the Board of Directors sets target and cap for absolute TSR (aTSR). A result at or above the cap corresponds to a payout factor of 200 %, a result at target corresponds to 100 % and a result of 0 corresponds to 0 %.

For relative TSR (rTSR), a result at or above the 90th percentile corresponds to a payout factor of 200 %, at the 50th percentile the payout is 100 %, at the 20th percentile the payout factor is 50 % and below it is 0 %.

The number of PSA granted, multiplied by the weighted payout factors of absolute and relative TSR results in the final payout. For each PSA granted, the equivalent of dividends paid per share to shareholders during the vesting period is added to the final payout.

Target, Performance and Payout per Dec 31, 2018 for the current programs are:

	Target	aTSR per Dec 31, 2018	Payout	rTSR per Dec 31, 2018	Payout	Dividend Equivalent per Dec 31, 2018	Total Payout per Dec 31, 2018
LTI 2016–2019	20.0 %	34.5 %	196.4 %	55.0 %	112.2 %	8.6 %	188.2 %
LTI 2017–2020	22.0 %	20.7 %	94.0 %	64.0 %	135.4 %	5.9 %	108.2 %
LTI 2018–2021	6.0 %	-29.7 %	0.0 %	56.0 %	113.9 %	3.2 %	25.9 %

*E.g. LTI 2018–2021: 0.0 % * 80 % + 113.9 % * 20 % + 3.2 % = 25.9 %*

Participants can elect at the beginning of the plan whether the effective number of PSA is fully converted into shares or whether 70 % are received in shares and 30 % are sold upon vesting to receive the corresponding value in cash. For the shares received, a two-year blocking period applies, which is waived if the employment ends earlier.

In cases of termination by mutual agreement, expiration of employment contract (retirement, death, disability) or due to dismissal for reasons other than for cause or per-

formance, grants vest at the next regular vesting date. The Board of Directors has discretion over the terms of mutual agreements and exercises this discretion by reducing the grant to a pro-rated number of units if the termination occurs in the same year as the grant.

The Board of Directors is authorized to amend, supplement, suspend or terminate the plan at its discretion and at any point in time, including corporate events affecting the underlying shares.

In 2018, members of the Executive Committee received a portion of their compensation in the form of awards of OC Oerlikon Corporation AG, Pfäffikon stock. Grants were made to all members of the Executive Committee under the LTI program 2018. The LTI program is financed with treasury shares.

Benefits

The primary purpose of pension and insurance plans is to establish a level of security for employees and their dependents with respect to age, disability and death. The level and scope of pension and insurance benefits provided are country-specific, influenced by local market practices and regulations.

OC Oerlikon may provide other benefits in a specific country, such as a company car or a car allowance, or in case of an international hire also temporary housing or tax planning services.

Shareholding requirement

Members of the Executive Committee are required to build a significant personal shareholding in the business to further align the interests of the management and shareholders. The minimum threshold is a percentage of the annual base salary.

Role	% of base salary
CEO	200 %
Other members of the Executive Committee	100 %

Current members of the Executive Committee are required to reach their minimum investment limit within a period of five years. The shareholding of the individuals is reviewed regularly. New members of the Executive Committee have five years during which to reach their minimum investment limit. Members of the Executive Committee are encouraged to retain and use their LTI shares, when vested, to meet this requirement of the remuneration policy.

Employment Agreements

The employment contracts of Executive Committee members are of unlimited duration and end automatically when the member reaches retirement age. The contracts provide for a notice period of 12 months. The contracts of Executive Committee members contain a non-competition clause for the duration of 12 months following termination of employment, which is compensated with an annual base salary.

Compensation 2018

Effective Compensation

The following section discloses the pay components effectively received in 2018, including salary and bonus payments, contributions to pension plans, fringe benefits as well as the actual value of equity plans at vesting date. This perspective reflects the income received by members of the Executive Committee, which in 2018 amounted to CHF 8.1 million. The highest compensation effectively received by an individual member of the Executive Committee in 2018 was CHF 3.2 million.

Effective Compensation of members of the Executive Committee

in CHF 000	Fixed compensation			Variable compensation		LTI 2015–2018 (effective value at vesting date) ³	Total effective compensation 2018	Total compensation 2017 ⁴
	Base salary	Pension	Other ¹	Bonus ²				
Total compensation to members of the Executive Committee	2 706	717	97	3 119	1 442	8 081	8 397	
Thereof highest paid to one individual: Dr. Roland Fischer (CEO)	1 000	235	37	1 295	626	3 193	2 869	

¹ Other compensation includes fringe benefits such as a company car, car allowance or housing.

² The bonus is determined on Group, Segment and individual level and depends on business and individual performance.

³ The LTI plan 2015 is based on RSU and vested in 2018.

⁴ The Executive Committee consisted of two additional members.

Granted compensation

The following section discloses the granted pay components in 2018, including salary and bonus payments, contributions to pension plans, fringe benefits as well as the target value of equity programs at grant date. This perspective reflects the compensation potential provided to members of the Executive Committee, which in 2018 amounted to CHF 10.0 million. The highest compensation granted to an individual member of the Executive Committee in 2018 was CHF 4.3 million.

The target compensation of members of the Executive Committee was not adjusted in 2018. Differences to the previous year stem from a change in the composition of the Executive Committee.

Granted Compensation of members of the Executive Committee (audited)

in CHF 000	Fixed compensation			Variable compensation		Total granted compensation 2018	Total granted compensation (market value per Dec. 31, 2018) ⁴	Total granted compensation 2017 ⁵
	Base salary	Pension	Other ¹	Bonus ²	LTI 2018–2021 (target value at grant date) ³			
Total compensation to members of the Executive Committee	2 706	717	97	3 119	3 327	9 966	7 147	11 985
Thereof highest paid to one individual: Dr. Roland Fischer (CEO)	1 000	235	37	1 295	1 744	4 311	2 833	4 560
Estimated Mandatory Employer Contributions ⁶						528	379	635

¹ Other compensation includes fringe benefits such as a company car, car allowance or housing.

² The bonus is determined on Group and individual level and depends on business and individual performance.

³ The share price at grant date in 2018 was CHF 16.13. The performance of the LTI plan per December 31, 2018 is 25.9%. The effective performance of the plan will be determined per December 31, 2020 and the effective value at the time of vesting on April 30, 2021 and disclosed as effective compensation in the remuneration report the following year.

⁴ The market value per year-end is based on a share price on Dec. 31, 2018 of CHF 11.04 and a performance of 25.9%.

⁵ In 2017, the Executive Committee consisted of two additional members.

⁶ The Compensation Ordinance requires the disclosure of estimated employer contributions to social security.

The Annual General Meeting of Shareholders on April 10, 2017 approved a maximum aggregate amount of the fixed compensation of the Executive Committee from July 1, 2017 until June 30, 2018 of CHF 5.2 million. The following table shows the reconciliation between the effective Executive Committee compensation and the amount approved for this period. The difference between approved and effective compensation stems from changes in the composition of the Committee.

During 2018, no compensation was paid to former members of the Executive Committee or related parties, either by OC Oerlikon Corporation AG, Pfäffikon or by any other company of the Oerlikon Group.

Current or former members of the Executive Committee did not receive any fees or other remuneration for additional services to OC Oerlikon or its subsidiaries in the 2018 business year. Neither OC Oerlikon nor its subsidiaries granted any guarantees, loans, advances or credit facilities to members of the Executive Committee or related parties in 2018 or 2017.

During 2018, no compensation was paid to related parties, either by OC Oerlikon Corporation AG, Pfäffikon or by any other company of the Oerlikon Group.

July 1, 2017 – June 30, 2018

in CHF 000	Base salary	Pension	Other	Total	Approved amount 2017–2018
	2 860		747	158	3 765
Full year 2017					4 147
Full year 2018					3 521
Total 2017/2018					7 668
Period Jan. 2017 – Jun. 2017					2 151
Period Jul. 2017 – Jun. 2018					3 765
Period Jul. 2018 – Dec. 2018					1 751
Total 2017/2018					7 668



Report of the statutory auditor to the General Meeting of OC Oerlikon Corporation AG, Pfäffikon, Freienbach

We have audited the accompanying remuneration report of OC Oerlikon Corporation AG, Pfäffikon for the year ended 31 December 2018. The audit was limited to the information according to articles 14–16 of the Ordinance against Excessive Compensation in Stock Exchange Listed Companies (Ordinance) contained in the section “Compensation” of the board of directors on page 76 and section “Granted compensation” of the executive committee labeled 'audited' on page 80 of the remuneration report.

Board of Directors' responsibility

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

Auditor's responsibility

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

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

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

Opinion

In our opinion, the remuneration report of OC Oerlikon Corporation AG, Pfäffikon for the year ended 31 December 2018 complies with Swiss law and articles 14–16 of the Ordinance.

PricewaterhouseCoopers AG

A handwritten signature in black ink, appearing to read 'St. Räbsamen', written over a light blue horizontal line.

Stefan Räbsamen
Audit expert
Auditor in charge

A handwritten signature in black ink, appearing to read 'D. Hattrup', written over a light blue horizontal line.

Dominik Hattrup
Audit expert

Zürich, 1 March 2019

PricewaterhouseCoopers AG, Birchstrasse 160, Postfach, CH-8050 Zürich, Switzerland
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Risk Management and Compliance

OERLIKON'S RISK MANAGEMENT SYSTEM

Oerlikon takes a company-wide, holistic approach to the identification, assessment and management of business risks. All organizational units and their business processes and projects are evaluated across the entire spectrum of market, credit and operational risks. The Risk Management System is a management tool that serves to integrate risk management within the company's executive ranks and organizational structure.

Objectives and Principles

The Board of Directors has defined five primary objectives for the Risk Management System. First, it must help secure the company's continued existence and profitability by creating a transparent risk profile and continuously improving and monitoring it. Second, it must contribute to improving planning and supporting a better achievement of targets. Third, it must secure revenue and reduce potential risk-related expenses, which safeguards and enhances the company's value. Fourth, it must align total risk exposure with the company's risk-bearing capacity and ensure that the risk-return ratio of business activities is transparent. Finally, risk management must also help protect the company's reputation.

Organization

Roles and responsibilities within the Risk Management System are defined as follows:

- In accordance with Swiss stock corporation law, the Board of Directors has overall responsibility for supervising and monitoring risk management. Supported by the Audit Committee, it monitors the Group's risk profile on the basis of internal reporting. In addition, it reviews the Risk Management System's performance and effectiveness. The Board of Directors also uses internal auditing to fulfill and document its supervisory and monitoring duties
- Pursuant to Oerlikon's Organizational and Governance Rules, the Chief Executive Officer (CEO), with the support of the Executive Committee, bears overall responsibility for structuring and imple-

menting risk management (delegated management responsibility for risk management). He approves the risk management directive and is responsible for revising it, and also monitors the Group's risk profile and the implementation of risk mitigation actions.

- In accordance with the principle of risk ownership, the Segments and Group Departments (assessment units) bear responsibility for risks and damage/losses in their respective areas. Each is responsible for the implementation of the risk management process. Each assessment unit has a risk management coordinator who coordinates the unit's activities with Group Risk Management. The assessment units conduct risk assessments, establish risk mitigation actions and report the results to Group Risk Management. They continuously monitor their risk profiles and report damage/losses to Group Risk Management.
- As process owner, Group Risk Management is tasked with operation and further development of the Risk Management System. The Head of Group Risk Management assumes technical responsibility for risk management. Group Risk Management provides, among other things, methods and tools, supports the assessment units in conducting risk assessments and developing mitigation actions, and oversees the implementation of risk mitigation actions. Other responsibilities include calculating the total risk exposure and the risk-adjusted key performance indicators (KPI), monitoring risk-bearing capacity, internal reporting, conducting internal audits and providing training with respect to the Risk Management System. Group Risk Management also coordinates risk-related activities of other units as and when necessary.
- Central units and decentralized departments carry out certain risk-related activities. For example: Group Treasury (liquidity, foreign exchange and interest rate risks); Group Tax (tax risks); Group Legal Services (legal risks, compliance risks, including trade control); IT Security (IT risks); Security (security risks); and Insurance Management (insurable risks); etc.

Process and Reporting

The assessment units conduct risk assessments semi-annually and prepare their risk profiles and mitigation action plans. The risk management process is coordinated with the budgeting/planning process and the forecasting process. From a methodological perspective, risk assessments are conducted according to a standard procedure comprising the following steps: preparation of the risk assessment, identification of risks, risk evaluation and planning of risk mitigation actions. The process is Group-wide supported by a risk management software. Internal risk reporting is done semi-annually to the Executive Committee, the Audit Committee and the Board of Directors based on consolidated risk reports.

Culture

Oerlikon's risk culture is shaped and developed by the Code of Conduct, training, best-practice sharing, continuous implementation of the risk management process and the Executive Committee and senior management, which act as role models. The risk management directive also contains statements illustrating the desired risk culture.

CURRENT SITUATION

Oerlikon operates in markets characterized by various uncertainties. The Segments have different risk profiles contingent upon strategy, the business model and operational implementation. From the perspective of the Group holding company, the following risks might impact Oerlikon's businesses and its performance:

Market Risks

- Economic slowdown and business cycles: as a result, order intake, sales and profitability could decrease.
- Competition: Competition and overcapacity in various markets could exert pressure on prices or trigger a decline in orders. As a result, order intake, sales and profitability could decrease.

- Digitalization: Industry 4.0 could change the marketplace, and failing to adapt and to seize opportunities could further increase pressure from competition.
- Foreign currency effects (transaction and translation risk): Unfavorable currency developments, mainly with respect to the euro and US dollar, could trigger higher procurement costs and lower sales figures. In addition, profitability could decline as a result of local currencies being translated into the Group's reporting currency (Swiss franc).
- Country risks: For example, geopolitical events, regulations, new or higher taxes and fees, currency appreciation or depreciation, higher interest rates, reduced growth, loss of proprietary information (intellectual property), etc., could cause sales to decline and costs to rise. As a result, profitability could decrease.

Credit Risks

Credit risks arise when customers cannot meet their obligations as agreed. At present, there are no significant credit risks for the Group.

Operational Risks

- Additional costs/warranties: Insufficient product quality or machines and equipment that fail to perform as promised could lead to additional manufacturing costs and/or contractual warranty obligations. This could reduce profitability.
- Technology risks: If technologies do not prove successful in the market, order intake and sales targets may not be reached. Impairment charges may have to be reported.
- Legal: Oerlikon is exposed to numerous legal risks as a result of its international operations. These include, in particular, risks in the areas of competition and antitrust law, patent law, tax law and environmental protection law, trade control law and data protection law. Oerlikon has a valuable portfolio of industrial property rights, such as patents and trademarks. These property rights can become the target of attacks and infringements.

- Loss of key people/shortage of qualified skilled staff and managers: If key people leave the company and qualified skilled staff and managers are not available, sales and profitability targets may not be reached.
- IT security: Cyber attacks could result in business interruption, loss of data, and ultimately in loss of profit, additional costs and reputational damage for the Group.

In 2018, Oerlikon maintained its established line of defense, and advanced compliance program.

Established in 2017, in 2018 Group Compliance continued its post-merger integration compliance onboarding process for new targets into Oerlikon's compliance system.

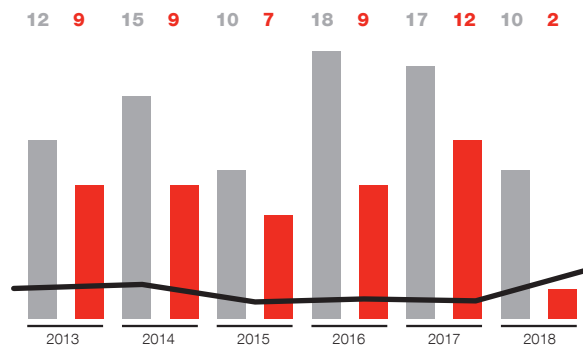
The Compliance program has a three-pillar framework:

- **Prevention:** through policies, directives, training, the Code of Conduct, risk assessment, maturity assessment, compliance councils, internal controls and metrics, examples and Q&A in all employee meetings.
- **Early detection:** the "whistleblowing" hotline, continuous compliance reviews, controls and internal audits, allegation management process.
- **Response:** disciplinary action on compliance breaches, process adaptation, resolution plans, remediation of internal control systems, fine-tune policies.

COMPLIANCE AND ETHICS

There is a Group-wide compliance function which focuses on compliance within the legal, regulatory spectrum and internal regulations, including the Group's ethical standards, by actively invoking such preventive measures as training, communication and consulting. The foundation of this program was laid and enhanced between 2009 and 2012, with a focus on developing key elements of a state-of-the-art compliance program, including a written Code of Conduct, compliance risk assessment analysis and the development of an anti-corruption training program.

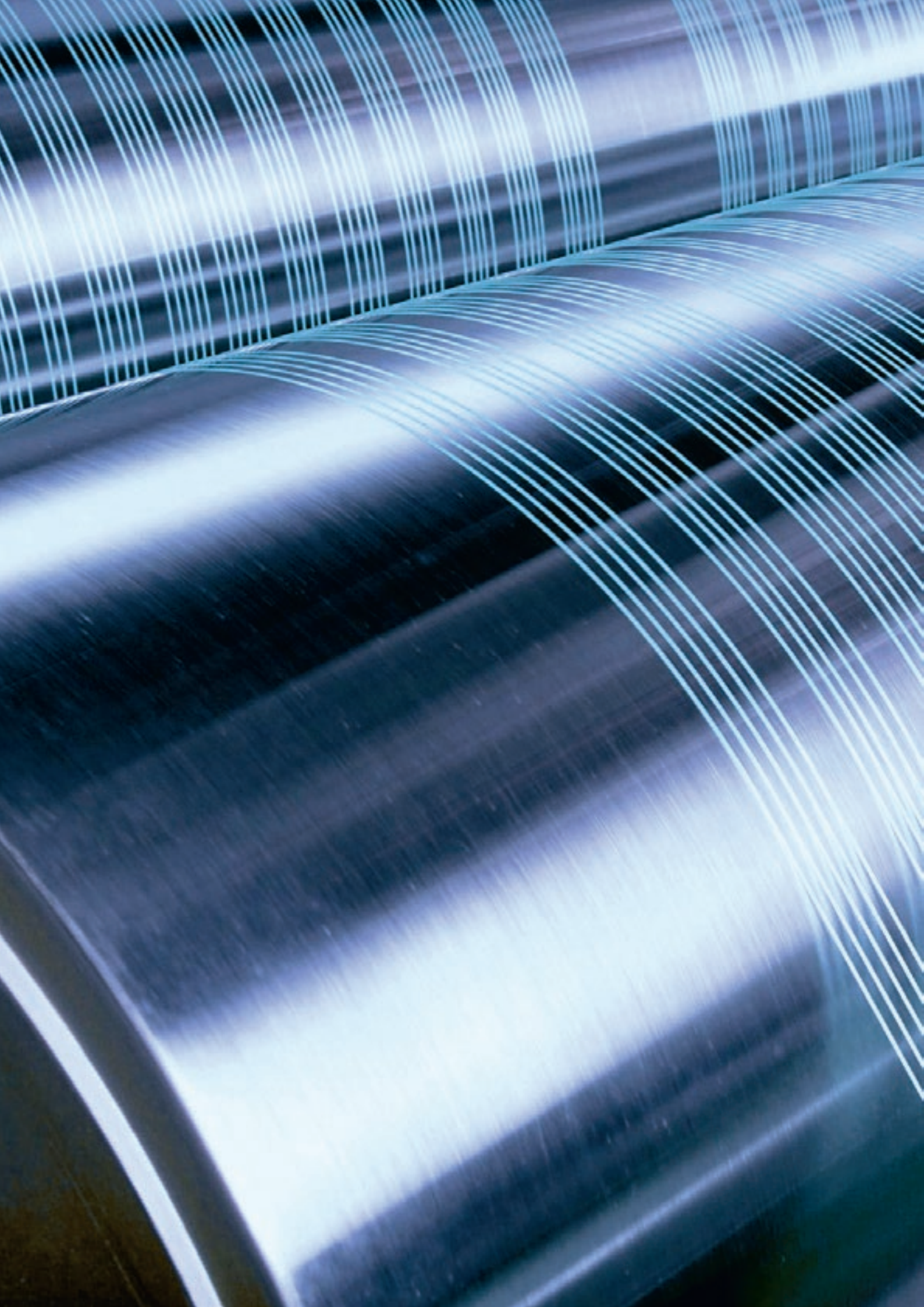
Since that time and what remains a key focus for Oerlikon is to enhance and promote behavioral aspects of leadership awareness while dealing with integrity issues. Oerlikon has done so by implementing and revising its business partner integrity screening process and by introducing and establishing an Anti-Trust compliance program. In 2015 and 2016, the Compliance program emphasized the establishment of data compliance to enhance all aspects of data privacy and information security. In 2017, in particular, Compliance prepared for the implementation of the EU's General Data Protection Regulation (GDPR), which came into effect on May 25, 2018.



Compliance cases 2013 – 2018 ytd

- Total number of cases
- Number of substantiated cases
- Financial Impact (in CHF million)

Financial Report



Investing in a global industrial leader

A company with a strong financial foundation, growth and future promise, Oerlikon is on the leading edge of technology and innovation, serving its customers in ways that profoundly improve their business.

Information for Shareholders

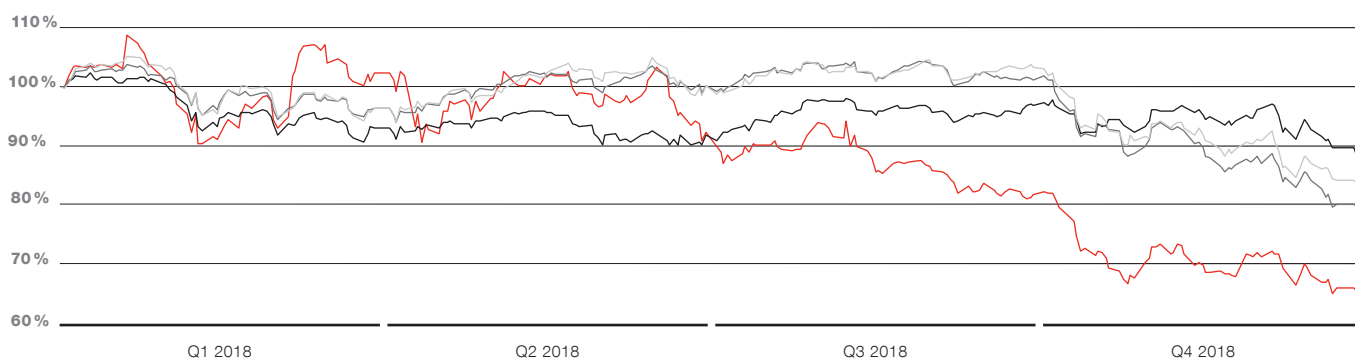
2018 Capital Market Development

Overall, 2018 was dominated by increasing economic uncertainty and political imponderables, such as Brexit or the growing trade conflict between the world's two largest economies – the U.S. and China. For the year, the S&P 500 fell 6.2%, the Dow Jones dropped 5.6% and the Nasdaq Composite shed 3.9%, marking the worst annual performance for all three since 2008. In Europe, the Stoxx Europe 600 Industrial fell 15.2% for 2018, its biggest decline since 2008. The Swiss Market Index (SMI) closed out the year at 8429 points, a decrease of 10.2% compared to 2017 (9382 points), while the SMI Mid (SMIM) decreased by 18.9% in 2018 to 2102 points (2017: 2592 points).

Oerlikon Share Performance in 2018

Oerlikon shares had a good start into 2018, reaching their annual high on January 19, 2018, at a share price of CHF 18.27, following the announcement of record orders in the Manmade Fibers Segment in mid-January. The starting trade conflict impacted global markets and

also affected the Oerlikon share price, resulting in a period of decline during the first quarter. The full-year earnings announcement beat expectations in terms of results and guidance and provided for a positive closing of the first quarter of 2018 for the Oerlikon share. The second quarter started with a sharp decline for Oerlikon's share price after the U.S. had imposed sanctions against Russian individuals. As soon as the market understood the Oerlikon shareholding and implications, the share price recovered, also backed by strong first-quarter results. Global geopolitical fears over a trade war and Brexit impacted global markets and also affected the Oerlikon share price. Concerns of a global industrial slowdown resulted in a period of decline, which started toward the end of the second quarter and continued for the second half of the year. The Oerlikon share price closed out 2018 at CHF 11.04 (2017 closing price: CHF 16.45), a decrease of 32.9%. Average daily trading volume on the 249 trading days in 2018 increased slightly to around 1.1 million shares (2017: 0.8 million shares).



Development of the Oerlikon share price

Indexed; 100% = closing price as of December 31, 2017

- OERLIKON
- SMI
- SMIM
- STOXX Europe 600 Industrial

Analyst Recommendations

Thirteen financial analysts covered Oerlikon in 2018 and published performance estimates and recommendations based on their analyses. Oerlikon provides analysts and investors with market consensus figures in order to facilitate an independent and transparent assessment of performance. This consensus is based purely on analyst estimates and in no way reflects the opinion of Oerlikon.

Despite delivering on strategy and reporting strong operating results, several analysts had reduced their price target on multiple contraction, which led to a decrease in the analysts' average target price of 2%, from CHF 16.15 to CHF 15.78 during 2018 (with a range from CHF 13.50 to CHF 17.50 at year-end). As of December 31, 2018, seven out of thirteen analysts recommended the purchase of Oerlikon shares (buy/outperform). There were six neutral (hold/neutral) and no negative (sell/underperform) recommendations.

Oerlikon is seeking to expand the number of financial institutions covering the company, particularly outside of Switzerland, in order to broaden the opinions available in the financial markets and the basis for the consensus figures. After the 2018 balance sheet date, Deutsche Bank had initiated coverage in January 2019 with a buy recommendation and a price target of CHF 15.00.

Shareholder Earnings

In 2018, Oerlikon paid a dividend to its shareholders amounting to CHF 0.35 per share for the financial year 2017. Based on a strong underlying performance improvement, solid financial position and as a share of some of the proceeds from the successful sale of the Drive Systems Segment, the Board of Directors of Oerlikon will propose a dividend of CHF 1.00 per share mainly from the capital contribution reserves for the financial year 2018 at the Annual General Meeting of Shareholders scheduled for April 9, 2019. This comprises an ordinary dividend payout consistent with the previous year of CHF 0.35 and an extraordinary dividend of CHF 0.65 as share of some proceeds from the sale of the drive business. The ordinary dividend proposal (CHF 0.35) will be equivalent to a payout ratio of 59% based on underlying earnings per share (EPS) of CHF 0.59 (reported EPS: CHF 0.71). Based on the year-end closing price of CHF 11.04 and the overall dividend proposal of CHF 1.00, Oerlikon shares yielded a return of 9.1% in 2018.

The dividend policy remained unchanged and the proposed dividend payout can be based on up to 50% of the Group's underlying net result and beyond after considering the Group's financial position and affordability from the balance sheet.

Listing on the Stock Exchange

The registered shares of OC Oerlikon Corporation AG, Pfäffikon have been listed on SIX Swiss Exchange since 1973 and are traded in the main segment.

Securities symbol	OERL
Securities number	81 682
Security type	Registered share
International Securities Identification Number (ISIN)	CH0000816824
Settlement currency	CHF
Stock exchange	SIX Swiss Exchange
Bloomberg ticker symbol	OERL.S
Reuters ticker symbol	OERL.S

Weighting of the Oerlikon Share in Indices

as of December 31, in %

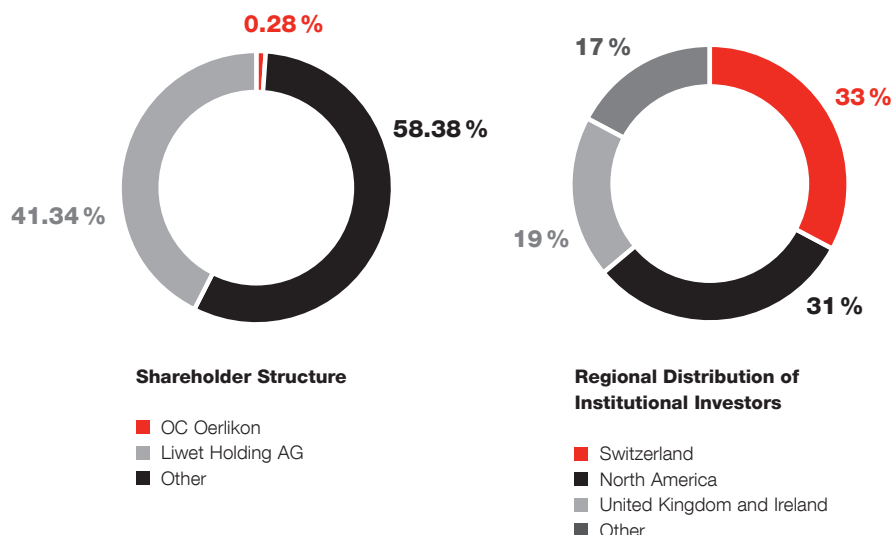
	2018	2017
SMIM	1.58064	1.90844
SMI Expanded	0.19724	0.25345
SPI	0.18333	0.23534
SPI Extra	0.98289	1.20843
SPI ex SLI	1.36792	1.67437
STOXX Europe 600	0.02659	0.03257
Swiss All Share	0.18205	0.23284
UBS 100 Index	0.18730	0.24010

Key Share-Related Figures¹

		2018	2017	2016	2015	2014
Year-end	in CHF	11.04	16.45	10.00	8.95	12.50
Year high	in CHF	18.27	16.95	10.10	12.70	15.65
Year low	in CHF	10.59	10.05	7.76	8.42	10.60
Year average	in CHF	14.56	13.18	9.26	11.02	13.20
Average daily trading volume (SIX)	in thousands	1 177	831	1 107	1 226	1 039
Average daily trading volume (SIX)	in CHF thousands	16 689	10 996	10 217	13 103	13 615
Shares outstanding at year-end	number	339 758 576	339 758 576	339 758 576	339 758 576	339 758 576
Market capitalization at year-end	in CHF million	3 751	5 589	3 398	3 041	4 247
Earnings per share (undiluted)	in CHF	0.71	0.44	1.14	-1.24	0.59
Earnings per share (diluted)	in CHF	0.71	0.44	1.14	-1.24	0.59
Price-earnings ratio		16.06	37.39	8.77	n.a.	21.19
Payout ratio		59% ²	70% ³	97% ⁴	49% ⁵	42% ⁶
Dividend per share	in CHF	1.00 ⁷	0.35 ⁸	0.30 ⁹	0.30 ¹⁰	0.30 ¹¹
Dividend yield		9.1%	2%	3%	3%	2%
Equity per share ¹²	in CHF	5.90	5.80	5.38	4.58	6.50
Cash flow from operating activities per share	in CHF	1.48	1.41	0.86	0.85	0.76

¹ Average number of shares with voting and dividend rights.² Based on an EPS of CHF 0.59 and an ordinary dividend of CHF 0.35.³ Based on underlying EPS of CHF 0.50.⁴ Based on underlying EPS of CHF 0.31.⁵ Based on underlying EPS of CHF 0.61.⁶ Based on underlying EPS of CHF 0.72.⁷ Dividend proposal for the financial year 2018, to be paid in 2019, comprising of an ordinary dividend of CHF 0.35 and an extraordinary dividend of CHF 0.65.⁸ For the financial year 2017, paid in 2018.⁹ For the financial year 2016, paid in 2017.¹⁰ For the financial year 2015, paid in 2016.¹¹ For the financial year 2014, paid in 2015.¹² Attributable to shareholders of the parent.

Shareholder Structure



Under the terms of the Financial Market Infrastructure Act (FMIA) shareholders whose holdings reach or exceed/fall short of a certain percentage of the share capital are required to disclose their holdings. The holdings of Liwet Holding AG, which remained Oerlikon's principal shareholder, was 41.34 % of outstanding shares at the end of the year (2017: 43.34 %). On August 21, 2018, Black Creek Investment Management Inc. disclosed that their voting rights exceeded the threshold of 3 % of outstanding shares. On October 23, 2018, BlackRock Inc. reported that their voting rights exceeded the threshold of 3 % of outstanding shares. At the end of December 2018, Oerlikon held 942 398 treasury shares (0.28 % of the share capital), which are intended to be used, among other things, as incentive instruments as part of the company's long-term compensation policy (2017: 322 194). The free float totaled 58.38 % (2017: 56.88 %) as of December 31, 2018. The number of registered shareholders slightly decreased from around 13 300 in 2017 to about 13 200 in 2018.

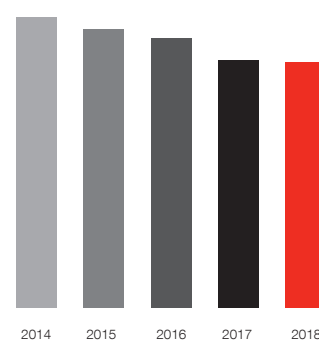
Oerlikon regularly commissions an analysis of its shareholder base in order to track the composition of registered shareholders as well as that of nonregistered investors. The latest study from January 2019 shows that the share capital held by private investors slightly increased to 8 % (January 2018: 7 %), the vast majority of whom are based in Switzerland. The other 82 % is owned by professional investors, which include financial investors such

as Liwet Holding AG and institutional investors (investment funds), insurance companies and pension funds. The percentage of shares from institutional investors shares was stable at 40 %.

Oerlikon saw ongoing endorsement of institutional investors to take larger positions in the company. The ten largest positions all exceeded 1 % of the shares outstanding as investors value the execution of Oerlikon's strategy as well as the underlying performance improvement and disciplined use of cash. The 25 largest shareholders besides Liwet Holding AG slightly increased their proportion of the shares outstanding to 32 %, compared to 30 % in the prior year.

The regional distribution of the institutional holdings was also balanced at the beginning of 2019. The majority of institutional holdings remains in Switzerland, making up 33 % of all institutional shareholders. One year ago, this percentage was 35 %. The percentage of institutional investors from North America strongly increased to 31 % (January 2018: 25 %). Institutional shareholders from the UK and Ireland decreased to 19 % (January 2018: 24 %). The portion of institutional investors from the rest of the world marginally increased to 17 %, from 16 % last year. The vast majority of these investors was domiciled in continental Europe.

15 600 15 000 14 500 13 300 13 200



Number of registered shareholders
at year-end

Shareholder Structure

Shareholder	Dec. 2018		Dec. 2017		Dec. 2016	
	No. of shares	in % ⁵	No. of shares	in % ⁵	No. of shares	in % ⁵
Liwet Holding AG, Zurich, Switzerland ¹	140 484 860 ²	41.34	146 222 889 ³	43.04	146 222 889 ⁴	43.04
OC Oerlikon Corporation AG, Pfäffikon, Switzerland	942 398	0.28	322 194	0.09	465 473	0.14
Other	198 331 318	58.38	193 213 493	56.87	182 743 744	53.78

¹ The shares of Liwet Holding AG, Zurich, are ultimately held as follows:

(a) 44.46% by Columbus Trust, a trust established under the laws of Cayman Islands, whose ultimate beneficiary is Mr. Viktor F. Vekselberg, Moscow, Russian Federation and Zug, Switzerland.

(b) 19.455% by Amapola Development Inc, Panama and Polaris Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Evgeny Olkhovik, Moscow, Russia.

(c) 19.455% by Ali International Ltd., Bahamas and Olympia Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Andrey Lobanov, London, United Kingdom.

(d) 16.63% by Next Generation Trust, a trust established under the laws of Cyprus, whose ultimate beneficiaries are Alexey Valerievich Moskov, Irina Arkadievna Matveeva, Mikhail Sergeevich Sivoldaev, Rinat Shavkiatovich Khalikov, Igor Vladimirovich Cheremikin and Andrey Alekseevich Shtorkh.

² Source: Disclosure notification published by SIX Exchange Regulation on May 25, 2018.

³ Source: Disclosure notification published by SIX Exchange Regulation on November 15, 2017.

⁴ Source: Disclosure notification published by SIX Exchange Regulation on December 17, 2015.

⁵ Basis: shares issued (339 758 576).

External Financing

Syndicated Credit Facility Agreement

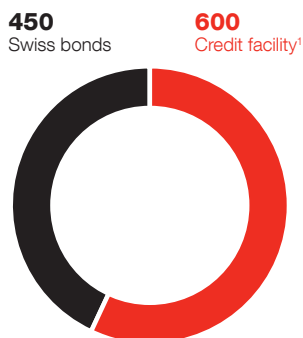
On December 7, 2016, Oerlikon signed an agreement for an unsecured syndicated revolving credit facility amounting to CHF 600 million. The facility comprises a revolving credit facility and an ancillary credit facility with a five-year term and two optional one-year extensions. The first option was successfully concluded in November 2017, the second extension option was not used, defining the final maturity date to 2022. No liquidity was drawn from the cash facility at the balance sheet date.

Cash and cash equivalents amounted to CHF 764 million at the balance sheet date. The Group had total net cash of CHF 398 million as of December 31, 2018.

Other Debt Instruments

At the 2018 balance sheet date, the Group had non-current loans and borrowings amounting to CHF 194 million, attributable primarily to the outstanding domestic bond. The creditworthiness of the domestic bond was BBB- as assessed by UBS, BBB as assessed by Zürcher Kantonalbank, and low BBB as assessed by Credit Suisse (all investment grade). Credit Suisse's and UBS's assessments remain unchanged with a stable outlook. Zürcher Kantonalbank has raised its outlook to positive in August 2018. Since 2017, fedafin AG is also covering Oerlikon's bonds.

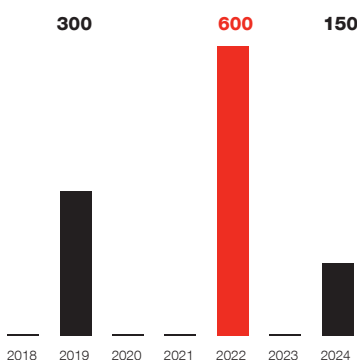
Oerlikon's debt financing structure and related maturity profile will be reviewed during the course of 2019.



Financing instruments

as of December 31, 2018

- Credit facility CHF 600 million
- ¹ No liquidity was drawn as of the balance sheet date.
- Swiss bonds CHF 450 million



Maturity of financing instruments

as of December 31, 2018

- Credit facility CHF 600 million
- Swiss bonds CHF 450 million

Outstanding bonds as of December 31, 2018

ISIN	Coupon	Maturity	Volume	Issue price	Price as of Dec. 31, 2018	Price as of Dec. 31, 2017
CH0244692528	1.25 %	June 17, 2019 Redemption at par	CHF 300 million	100 %	100.546 %	101.755 %
CH0244692536	2.625 %	June 17, 2024 Redemption at par	CHF 150 million	100 %	110.824 %	113.883 %

Financial Calendar and Contacts

FINANCIAL CALENDAR

March 5, 2019

Q4/FY 2018 results and publication of Annual Report 2018

April 9, 2019

2019 Annual General Meeting of Shareholders, KKL Lucerne

May 7, 2019

Q1 2019 results

August 7, 2019

Q2/HY 2019 results and publication of Interim Report 2019

November 5, 2019

Q3/9M 2019 results

Dates of roadshows, conferences and other events can be found in the financial calendar on our website at www.oerlikon.com/en/investors.

CONTACTS

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Key figures Oerlikon Group

Key figures Oerlikon Group

in CHF million	January 1 to December 31, 2018	January 1 to December 31, 2017
Order intake ¹	2 731	2 211
Order backlog ¹	596	496
Sales ¹	2 609	2 068
EBITDA ¹	406	322
- as % of sales ¹	15.6 %	15.6 %
EBIT ¹	243	168
- as % of sales ¹	9.3 %	8.1 %
Result from continuing operations ²	173	95
Result from discontinued operations, net of income taxes ²	73	56
Net income ²	245	151
- as % of equity attributable to shareholders of the parent ²	12 %	8 %
Cash flow from operating activities ^{2, 4}	498	478
Capital expenditure for property, plant and equipment and intangible assets ¹	207	169
Total assets ²	4 545	4 363
Equity attributable to shareholders of the parent ²	2 001	1 971
- as % of total assets ²	44 %	45 %
Net cash ^{3, 5}	398	499
Net operating assets ^{1, 6}	1 523	1 949
Number of employees (full-time equivalents) ¹	10 727	9 798
Personnel expense ¹	782	681
Research and development expenditure ^{1, 7}	116	95

¹ 2018 continuing operations, 2017 restated.

² 2017 restated.

³ 2018 continuing operations, 2017 as reported.

⁴ Cash flow from operating activities before changes in net current assets amounts to CHF 429 million (previous year, restated: CHF 404 million).

⁵ Net cash includes cash and cash equivalents, deposits and marketable securities less current and non-current debt.

⁶ Net operating assets include current and non-current operating assets (including goodwill and brands and excluding cash and cash equivalents, current financial investments, current income tax receivables and deferred tax assets) less operating liabilities (excluding current financial liabilities, non-current loans and borrowings, current income tax payables and deferred tax liabilities). Net operating assets from continuing operations as per December 31, 2017 amounted to CHF 1 566 million.

⁷ Research and development expenditure includes expenses recognized as intangible assets in the amount of CHF 30 million (previous year, restated: CHF 24 million).

Key share-related figures¹

in CHF	January 1 to December 31, 2018	January 1 to December 31, 2017
Share price		
Year high	18.27	16.95
Year low	10.59	10.05
Year-end	11.04	16.45
Shares outstanding at year-end	339 758 576	339 758 576
Market capitalization at year-end in CHF million	3 751	5 589
EBIT per share ²	0.72	0.50
Earnings per share	0.71	0.44
Cash flow from operating activities per share	1.48	1.41
Equity per share ³	5.90	5.81
Dividend per share	1.00 ⁴	0.35 ⁵

¹ Average number of shares with voting and dividend rights (undiluted).

² Continuing operations.

³ Attributable to shareholders of the parent.

⁴ Dividend proposal for 2018, to be paid in 2019, comprising of an ordinary dividend of CHF 0.35 and an extraordinary dividend of CHF 0.65.

⁵ For financial year 2017, paid in 2018.

Key figures by Segment

in CHF million	January 1 to December 31, 2018	January 1 to December 31, 2017, restated ³
Oerlikon Group¹		
Order intake	2 731	2 211
Order backlog	596	496
Sales	2 609	2 068
EBITDA	406	322
– as % of sales	15.6 %	15.6 %
EBIT	243	168
– as % of sales	9.3 %	8.1 %
Net operating assets ²	1 523	1 949
Number of employees (full-time equivalents)	10 727	9 798
Surface Solutions Segment		
Order intake	1 574	1 412
Order backlog	193	124
Sales	1 519	1 376
– thereof sales to third parties	1 511	1 370
EBITDA	283	276
– as % of sales	18.6 %	20.1 %
EBIT	144	149
– as % of sales	9.5 %	10.8 %
Net operating assets ²	1 584	1 519
Number of employees (full-time equivalents)	7 654	7 079
Manmade Fibers Segment		
Order intake	1 157	799
Order backlog	403	372
Sales	1 098	698
– thereof sales to third parties	1 098	698
EBITDA	128	56
– as % of sales	11.7 %	8.0 %
EBIT	106	33
– as % of sales	9.6 %	4.7 %
Net operating assets ²	–59	69
Number of employees (full-time equivalents)	2 824	2 496

¹ Continuing operations.

² Net operating assets include current and non-current operating assets (including goodwill and brands and excluding cash and cash equivalents, current financial investments, current income tax receivables and deferred tax assets) less operating liabilities (excluding current loans and borrowings, non-current financial liabilities, current income tax payables, non-current post-employment benefit liabilities and deferred tax liabilities). Net operating assets from continuing operations as per December 31, 2017 amount to CHF 1 566 million.

³ With the adoption of the new accounting standard IFRS 15, prior-year figures have been restated. In addition, following the announcement of the divestment of the Drive Systems Segment, the respective figures are presented as discontinued operations and 2017 figures have been restated. Refer to the section "Adjustments" of the "Significant accounting principles".

Consolidated income statement

in CHF million	Notes	January 1 to December 31, 2018	January 1 to December 31, 2017, restated ¹
Sales of goods		1 615	1 140
Services rendered		995	928
Total sales	26	2 609	2 068
Cost of sales		-1 817	-1 405
Gross profit		793	663
Marketing and selling		-184	-162
Research and development		-120	-101
Administration		-257	-230
Other income	3	42	30
Other expense	3	-30	-32
Result before interest and taxes (EBIT)		243	168
Financial income	5	21	10
Financial expense	5	-24	-19
Result before taxes (EBT)		240	159
Income taxes	6	-68	-64
Result from continuing operations		173	95
Result from discontinued operations, net of income taxes	2	73	56
Net income		245	151
Attributable to:			
Shareholders of the parent		240	148
Non-controlling interests		5	3
Earnings per share in CHF	7	0.71	0.44
Diluted earnings per share in CHF	7	0.71	0.44
Earnings per registered share continuing operations in CHF		0.50	0.27
Diluted earnings per registered share continuing operations in CHF		0.50	0.27
Earnings per registered share discontinued operations in CHF	2	0.21	0.16
Diluted earnings per registered share discontinued operations in CHF	2	0.21	0.16

¹ With the adoption of the new accounting standard IFRS 15, prior-year figures have been restated. In addition, following the announcement of the divestment of the Drive Systems Segment, the respective figures are presented as discontinued operations and 2017 figures have been restated. Refer to the section "Adjustments" of the "Significant accounting principles".

Consolidated statement of comprehensive income

in CHF million	Notes	January 1 to December 31, 2018	January 1 to December 31, 2017, restated ¹
Net income		245	151
Other comprehensive income			
Items that will never be reclassified to the income statement			
Remeasurement of defined benefit plans ²	14	-10	39
Income taxes on items that will never be reclassified to the income statement		2	-16
		-8	23
Items that are or may be reclassified subsequently to the income statement			
Changes in fair value of hedges ³		-7	6
Conversion differences		-73	70
Income taxes on items that are or may be reclassified subsequently to the income statement		2	-1
		-78	75
Other comprehensive income for the period, net of taxes		-86	98
Total comprehensive income for the period		159	249
Attributable to:			
Shareholders of the parent		155	245
Non-controlling interests		4	4

¹ With the adoption of the new accounting standard IFRS 15, the prior-year figures have been restated.

² Thereof CHF -1 million relating to discontinued operations (previous year: CHF 9 million).

³ Thereof CHF -1 million relating to discontinued operations (previous year: CHF 1 million).

Consolidated balance sheet

Assets

in CHF million	Notes	December 31, 2018	December 31, 2017, restated ¹	January 1, 2017, restated ¹
Cash and cash equivalents	8	764	871	751
Current financial investments and derivatives	9	133	101	121
Trade and trade notes receivable	10	305	447	369
Current contract assets	26	31	40	12
Other receivables	10	92	113	80
Current income tax receivables		17	28	41
Inventories	11	343	461	351
Prepaid expenses and accrued income		19	15	11
Assets classified as held for sale	2	866	–	–
Current assets		2571	2076	1736
Loans and other non-current financial receivables	10	24	23	22
Non-current financial investments	9	29	18	6
Property, plant and equipment	12	667	845	745
Goodwill and intangible assets	13	1 139	1 229	1 154
Post-employment benefit assets	14	5	20	3
Deferred tax assets	6	110	151	159
Non-current contract assets	26	1	1	1
Non-current assets		1974	2287	2090
Total assets		4545	4363	3826

Liabilities and equity

in CHF million	Notes	December 31, 2018	December 31, 2017, restated ¹	January 1, 2017, restated ¹
Trade payables	15	277	366	240
Current contract liabilities	26	450	375	166
Current financial liabilities and derivatives	15	309	5	6
Other current payables	15	63	57	60
Accrued liabilities	16	201	203	178
Current income taxes payable		65	65	44
Current post-employment benefit liabilities	14	15	17	18
Other current provisions	17	38	76	71
Liabilities classified as held for sale	2	363	–	–
Current liabilities		1780	1 164	783
Non-current loans and borrowings	18	194	463	466
Other non-current liabilities		24	37	–
Non-current post-employment benefit liabilities	14	329	419	436
Deferred tax liabilities	6	132	165	159
Other non-current provisions	17	65	126	141
Non-current liabilities		743	1 210	1 202
Total liabilities		2524	2374	1985
Share capital		340	340	340
Treasury shares		–13	–4	–5
Retained earnings and reserves		1 674	1 635	1 492
Equity attributable to shareholders of the parent		2001	1971	1827
Non-controlling interests		21	18	14
Total equity		2021	1989	1841
Total liabilities and equity		4545	4363	3826

¹ With the adoption of the new accounting standard IFRS 15, prior-year figures have been restated. Refer to the section "Adjustments" of the "Significant accounting principles".

Consolidated cash flow statement¹

in CHF million	Notes	January 1 to December 31, 2018	January 1 to December 31, 2017, restated ²
Net income		245	151
Income taxes		94	63
Interest expense (net)		7	11
Depreciation of property, plant and equipment	12	120	130
Amortization of intangible assets	13	65	61
Impairment losses on property, plant and equipment	12	1	5
Addition to other provisions (net)		1	26
Decrease in post-employment benefit liabilities		-19	-18
Gain from sale of non-current assets		-2	-
Gain on sale of discontinued operations, net of income taxes	2	-	-6
Income taxes paid		-75	-41
Other non-cash items		-8	22
Cash flow from operating activities before changes in net current assets		429	404
Increase in receivables, contract assets, prepaid expenses and accrued income		-6	-120
Increase in inventories		-83	-88
Increase in payables, accrued liabilities and use of other provisions		73	91
Increase in contract liabilities		84	191
Non-cash impact on net current assets due to hedge accounting		1	-
Cash flow from changes in net current assets		69	74
Cash flow from operating activities		498	478
Purchase of property, plant and equipment		-232	-202
Purchase of intangible assets	13	-49	-35
Acquisition of subsidiaries, net of cash acquired	2	-19	-26
Acquisition of associates and other investments		-18	-11
Purchase of financial investments		-36	-14
Proceeds from sale of property, plant and equipment		3	5
Proceeds from sale of financial investments		-	40
Interest received		9	6
Cash flow from investing activities		-342	-237
Dividends paid		-118	-104
Purchase of treasury shares		-14	-
Repayment of financial debt		-5	-6
Proceeds from financial debt		3	-
Acquisition of non-controlling interests		-	-9
Proceeds from foundation of subsidiaries with non-controlling interests		-	5
Interest paid		-16	-18
Cash flow from financing activities		-149	-132
Conversion adjustments to cash and cash equivalents		-19	11
Decrease/increase in cash and cash equivalents		-12	120
Cash and cash equivalents at the beginning of the year	8	871	751
Cash and cash equivalents at the end of the year ³	8	858	871
Decrease/increase in cash and cash equivalents		-12	120

¹ The cash flow statement includes effects from discontinued operations as well as assets and liabilities held for sale. Refer to Note 2 for cash flow from discontinued operations.

² With the adoption of the new accounting standard IFRS 15, prior-year figures have been restated. Refer to section "Adjustments" of the "Significant accounting principles".

³ 2018: Includes CHF 94 million, which are included in "Assets classified as held for sale" in the balance sheet as of December 31, 2018.

Consolidated statement of changes in equity

in CHF million	Share capital ¹	Additional paid-in capital ²	Treasury shares ³	Conversion differences	Retained earnings	Hedge accounting	Income taxes	Total equity attributable to shareholders	Non-controlling interests	Total shareholders' equity
Balance at January 1, 2017, as reported	340	1 115	-5	-431	696	-1	112	1 826	14	1 840
Impact of change in accounting policy	-	-	-	-1	2	-	-	1	-	1
Balance at January 1, 2017, restated	340	1 115	-5	-432	698	-1	112	1 827	14	1 841
Net income, restated	-	-	-	-	148	-	-	148	3	151
Changes in fair value of hedges	-	-	-	-	-	6	-1	5	-	5
Remeasurement of defined benefit plans	-	-	-	-	39	-	-16	23	-	23
Conversion differences	-	-	-	69	-	-	-	69	1	70
Other comprehensive income for the period	-	-	-	69	39	6	-17	97	1	98
Total comprehensive income for the period, restated	-	-	-	69	187	6	-17	245	4	249
Dividend distributions	-	-102	-	-	-	-	-	-102	-2	-104
Share-based payments	-	-	1	-	5	-	-	6	-	6
Contributions and distributions	-	-102	1	-	5	-	-	-96	-2	-98
Foundation of subsidiaries with non-controlling interests	-	-	-	-	-	-	-	-	5	5
Acquisition of non-controlling interests without a change in control	-	-	-	-	-6	-	-	-6	-3	-9
Changes in ownership interests	-	-	-	-	-6	-	-	-6	2	-4
Total transactions with owners of the company	-	-102	1	-	-1	-	-	-102	-	-102
Balance at December 31, 2017, restated	340	1 013	-4	-363	885	5	95	1 971	18	1 989
Net income	-	-	-	-	240	-	-	240	5	245
Changes in fair value of hedges	-	-	-	-	-	-7	2	-5	-	-5
Remeasurement of defined benefit plans	-	-	-	-	-10	-	2	-8	-	-8
Conversion differences	-	-	-	-72	-	-	-	-72	-1	-73
Other comprehensive income for the period	-	-	-	-72	-10	-7	4	-85	-1	-86
Total comprehensive income for the period	-	-	-	-72	230	-7	4	155	4	159
Dividend distributions	-	-119	-	-	-	-	-	-119	-1	-120
Share-based payments	-	-	5	-	3	-	-	8	-	8
Purchase of treasury shares	-	-	-14	-	-	-	-	-14	-	-14
Contributions and distributions	-	-119	-9	-	3	-	-	-125	-1	-126
Total transactions with owners of the company	-	-119	-9	-	3	-	-	-125	-1	-126
Balance at December 31, 2018	340	895	-13	-436	1 117	-2	99	2 001	21	2 021

¹ The share capital of OC Oerlikon Corporation AG, Pfäffikon consists of 339 758 576 fully-paid registered shares (previous year: 339 758 576) of nominal value CHF 1 each. On December 31, 2018, conditional capital amounted to CHF 47 200 000 (previous year: CHF 47 200 000).

² As of December 31, 2018, additional paid-in capital includes CHF 668 million (previous year: CHF 787 million) of legal reserves in OC Oerlikon Corporation AG, Pfäffikon.

³ As of December 31, 2018, the Group held 942 398 own shares (previous year: 322 194).

Significant accounting principles

Company operations

OC Oerlikon Corporation AG, Pfäffikon is a Swiss public company located in Churerstrasse 120, Pfäffikon, canton of Schwyz, Switzerland. It is the ultimate parent company of the Oerlikon Group, a leading high-tech industrial Group which provides innovative industrial solutions and cutting-edge technologies for surface solutions and manmade fibers manufacturing.

Apart from its activities in Switzerland, the Oerlikon Group operates primarily in EU member states, North America and Asia, and has a workforce of 10 727 employees (full-time equivalents) for continuing operations.

Basis of preparation

The consolidated financial statements of OC Oerlikon Corporation AG, Pfäffikon have been prepared in accordance with International Financial Reporting Standards (IFRS) and Swiss company law. These accounting standards have been applied consistently in all periods presented in this report except for the changes explained in section "Adoption of new and revised accounting standards". The consolidated financial statements are presented in Swiss francs (CHF). The consolidated financial statements were approved by the Board of Directors on March 1, 2019, and will be submitted to the Annual General Meeting of Shareholders on April 9, 2019, for approval. All standards issued by the International Accounting Standards Board (IASB) and all interpretations of the IFRS Interpretations Committee (IFRIC) effective at the date of the consolidated financial statements have been taken into account. All line item amounts in the consolidated financial statements are presented in millions of Swiss francs, and all such amounts (including totals and subtotals) have been rounded according to normal commercial practice. Thus, an addition of the figures presented can result in rounding differences. Values of assets and liabilities have been determined in accordance with the historical cost convention, with the exception of derivative financial instruments, contingent considerations and financial assets held for trading purposes, which are stated at fair value. These consolidated financial statements are published in English and German. If there is any divergence in the wording, the English original text is authoritative.

Judgments, estimates and assumptions

Preparation of the consolidated financial statements in accordance with IFRS requires management to make estimates and assumptions that affect the values of reported revenues, expenses, assets, liabilities and contingent liabilities at the reporting date. These estimates and assumptions are constantly being revised. Depending on the issues involved, revision of such assumptions can have an effect on the current period, as well as potentially on future periods. These estimates, judgments and assumptions are based on historical experience and other factors that are believed to be reasonable and justified as expectations of future events.

However, actual results can differ from these estimates. Moreover, consistent application of the chosen accounting principles can require management to make decisions that may have a material impact on the amounts reported in the annual financial statements. Above all, assessment of business transactions that involve complex structures or legal forms call for decisions on management's part. The most important accounting estimates are to be found in:

Business combinations: Where the Group acquires control of another business, the identifiable assets acquired, the liabilities assumed and any non-controlling interest in the acquired business shall be recognized, separately from goodwill.

This process involves management making an assessment of the fair value of these items. Management judgment is particularly involved in the recognition and measurement of the following items:

- Intellectual property. This may include technologies, patents, licenses, trademarks and similar rights for currently marketed products.
- Customer relationships.
- Contingencies such as legal, tax and environmental matters.
- The recoverability of any accumulated tax losses previously incurred by the acquired company.

In all cases, management makes an assessment based on the underlying economic substance of the items concerned, and not only on the contractual terms, in order to fairly present these items (refer to Note 2 for details).

Impairment of value: At December 31, 2018, the Group had CHF 667 million in property, plant and equipment, CHF 542 million in goodwill and CHF 598 million in intangible assets other than goodwill. A detailed test for impairment of the carrying amount is carried out for goodwill and other intangible assets with indefinite useful life annually or, as for all other assets, if there is any indication of a loss of value. Goodwill is allocated to the cash-generating units (CGUs) that are expected to benefit from the synergies of the business combination which gave rise to the goodwill. The recoverable amount of the CGUs is determined based on the value in use. In the same way, future cash flows from the use of tangible fixed assets can be estimated and the carrying value tested, using the same rules. These tests use estimates of future cash flows to be expected from the use of the assets concerned, or from their potential sale. Actual cash flows may vary significantly from these estimates following changes of plan for the use of assets such as land and buildings, technological obsolescence or market changes (refer to Note 12 for impairment of property, plant and equipment and Note 13 for impairment of goodwill and intangible assets).

Provisions and contingent liabilities: At December 31, 2018, the Group had CHF 103 million in provisions and CHF 6 million in contingent liabilities. In the ordinary course of their business, companies of the Group may become involved in litigious conflict or disagreement with third parties. Provisions are made to cover the Group's exposure in such matters, based on a realistic estimate of the economic outflow that may result. However, the ultimate resolution of such disputes can give rise to claims against the Group, which may not be fully covered by provisions or insurance. Specific warranty provisions are set up for known warranty claims as required, and also for situations where it is known from recent experience that the company is exposed to claims, usually for technical reasons. Besides this, a general provision is made for other possible claims, based on experience and linked to sales volumes. In cases where the company has entered into contractual obligations whose cost exceeds the economic benefit to be expected, corresponding provisions are made. These are based on management's estimates (refer to Note 17 for provisions and Note 23 for contingent liabilities).

Pensions: At December 31, 2018, the carrying amount of the Group's defined benefit obligations is CHF 1 018 million (including discontinued operations). The estimates and assumptions used are based on future projections and actuarial calculations that have been determined together with the actuaries (refer to Note 14 for details).

Taxes on income: At December 31, 2018, the Group had a current tax receivable of CHF 17 million, a current income tax liability of CHF 65 million, a deferred tax asset of CHF 110 million and a deferred tax liability of CHF 132 million. Estimates are used initially to determine amounts receivable and payable in respect of current and deferred taxes on income. These estimates are based on interpretation of existing tax law and regulations. Many internal and external factors can influence the final determination of amounts receivable or payable, such as changes in tax law, changes in tax rates, the level of future profits and fiscal audits carried out by the tax authorities (refer to Note 6 for details).

Adoption of new and revised accounting standards

The adoption of new or amended standards and interpretations which are effective for the financial year beginning on January 1, 2018, had the following impacts on the Group's consolidated financial statements.

IFRS 9 – Financial instruments had no material impact on the Group's consolidated financial statements and has been implemented through the modified retrospective method, which requires the recognition of the cumulative effect of initially applying IFRS 9, as at January 1, 2018, to retained earnings, without restatement of prior years. The application of the new Expected Credit Loss (ECL) model, which consists in assessing the impairment of financial assets based on a forward-looking model, increased allowance for doubtful debt by about CHF 0.2 million as of January 1, 2018. Based on the new standard, an allowance on not yet due trade receivables needs to be made as well. There are no other significant recognition, measurement or presentation impacts from the new IFRS 9 standard.

IFRS 15 – Revenue from Contracts with Customers replaced the existing standards IAS 11, IAS 18 and their associated interpretations. The application of the new revenue recognition standard requires an extensive analysis of contracts with customers according to a single five-step model framework. The implementation of the new standard mostly impacts the Manmade Fibers Segment, where for certain construction projects the Percentage-Of-Completion (POC) method was previously applied. For the respective projects, as replacement for the POC method, the Oerlikon Group applied revenue recognition over time in order to recognize revenue in a pattern that reflects the transfer of control of the promised goods or services to the customer. Progress of the "Manmade Fibers construction projects" is measured toward satisfaction of the performance obligation and revenue is recognized accordingly. For other revenue streams, revenue is commonly recognized at a point of time. The application of the new guidance results in a slightly deferred commencement when revenue is recorded. Besides of that, there is no other significant impact from the new standard. To conform to the first-year application of IFRS 15, the structure of the Oerlikon Group's financial statements has been amended and additional qualitative and quantitative information has been integrated into the annual report. According to the full retrospective approach, certain comparative figures for 2017 have been restated, with an adjustment to equity as at January 1, 2017. The effects of the adjustments to the 2017 consolidated income statement, balance sheet and cash flow statement can be found in section "Adjustments".

Newly published accounting standards not early adopted

Certain new accounting standards and interpretations have been published by the IASB that are not mandatory for December 31, 2018 reporting period and have not been early adopted by the Oerlikon Group.

IFRS 16 (effective date: January 1, 2019) will affect primarily the accounting by lessees and will result in the recognition of almost all leases on balance sheet, with assets increase of CHF 181 million and liabilities increase of CHF 187 million. The standard removes the current distinction between operating and financing leases and requires recognition of an asset (the right to use the leased item) and a financial liability to pay rentals for virtually all lease contracts. The income statement will also be affected. The total expense is typically higher in the earlier years of a lease and lower in later years. Additionally, operating expense will be replaced with interest and depreciation, so key metrics like EBITDA will change. Operating cash flows will be higher, as cash payments for the principal portion of the lease liability as well as interests, are classified within financing activities.

There are no other IFRS standards or interpretations which are not yet effective which would be expected to have a material impact on the Group's financial statements.

Discontinued operations

Following the announcement of the divestment of the Drive Systems Segment, the respective prior-year figures are shown as discontinued operations and therefore certain 2017 figures have been restated in accordance with IFRS 5. Effects of the adjustments to the 2017 consolidated income statement are shown in section "Adjustments" below.

Adjustments

Adjustments have been made to the prior-year figures due to the implementation of the new accounting standard IFRS 15 and the announcement of the divestment of the Drive Systems Segment. The effects of the adjustments to the 2017 consolidated income statement, balance sheet (January 1, 2017 / December 31, 2017) and cash flow statement are the following:

Effects on consolidated income statement

in CHF million	January 1 to December 31, 2017, as reported	Effects from the adoption of IFRS 15	January 1 to December 31, 2017, restated for IFRS 15	Effects from discon- tinued operations – Drive Systems Segment	January 1 to December 31, 2017, restated
Sales of goods	1 887	-53	1 834	-694	1 140
Services rendered	960	-	960	-32	928
Total sales	2 847	-53	2 794	-726	2 068
Cost of sales	-2 074	52	-2 022	617	-1 405
Gross profit	773	-1	772	-109	663
Marketing and selling	-175	-	-175	13	-162
Research and development	-114	-	-114	13	-101
Administration	-263	-	-263	33	-230
Other income	32	-	32	-2	30
Other expense	-34	-	-34	2	-32
Result before interest and taxes (EBIT)	219	-1	218	-50	168
Financial income	13	-	13	-3	10
Financial expense	-22	-	-22	3	-19
Result before taxes (EBT)	210	-1	209	-50	159
Income taxes	-64	-	-64	-	-64
Result from continuing operations	146	-1	145	-50	95
Result from discontinued operations, net of income taxes	6	-	6	50	56
Net income	152	-1	151	-	151
Attributable to:					
Shareholders of the parent	149	-1	148	-	148
Non-controlling interests	3	-	3	-	3

Effects on consolidated opening balance

in CHF million	December 31, 2016, as reported	Effects from the adoption of IFRS 15	January 1, 2017, restated
Cash and cash equivalents	751	–	751
Current financial investments and derivatives	121	–	121
Trade and trade notes receivable	369	–	369
Current contract assets	–	12	12
Other receivables	85	–5	80
Current income tax receivables	41	–	41
Inventories	353	–2	351
Prepaid expenses and accrued income	16	–5	11
Current assets	1 736	–	1 736
Loans and other non-current financial receivables	22	–	22
Non-current financial investments	6	–	6
Property, plant and equipment	745	–	745
Goodwill and intangible assets	1 154	–	1 154
Post-employment benefit assets	3	–	3
Deferred tax assets	159	–	159
Non-current contract assets	–	1	1
Non-current assets	2 089	1	2 090
Total assets	3 825	1	3 826
Trade payables	239	1	240
Current contract liabilities	–	166	166
Current financial liabilities and derivatives	6	–	6
Other current payables	60	–	60
Accrued liabilities	178	–	178
Current customer advances	167	–167	–
Current income taxes payable	44	–	44
Current post-employment benefit liabilities	18	–	18
Other current provisions	71	–	71
Current liabilities	783	–	783
Non-current loans and borrowings	466	–	466
Non-current post-employment benefit liabilities	436	–	436
Deferred tax liabilities	159	–	159
Other non-current provisions	141	–	141
Non-current liabilities	1 202	–	1 202
Total liabilities	1 985	–	1 985
Share capital	340	–	340
Treasury shares	–5	–	–5
Retained earnings and reserves	1 491	1	1 492
Equity attributable to shareholders of the parent	1 826	1	1 827
Non-controlling interests	14	–	14
Total equity	1 840	1	1 841
Total liabilities and equity	3 825	1	3 826

Effects on consolidated balance sheet

in CHF million	December 31, 2017, as reported	Effects from the adoption of IFRS 15	December 31, 2017, restated
Cash and cash equivalents	871	–	871
Current financial investments and derivatives	101	–	101
Trade and trade notes receivable	447	–	447
Current contract assets	–	40	40
Other receivables	172	–59	113
Current income tax receivables	28	–	28
Inventories	431	30	461
Prepaid expenses and accrued income	16	–1	15
Current assets	2066	10	2076
Loans and other non-current financial receivables	23	–	23
Non-current financial investments	18	–	18
Property, plant and equipment	845	–	845
Goodwill and intangible assets	1 229	–	1 229
Post-employment benefit assets	20	–	20
Deferred tax assets	151	–	151
Non-current contract assets	–	1	1
Non-current assets	2286	1	2287
Total assets	4352	11	4363
Trade payables	365	1	366
Current contract liabilities	–	375	375
Current financial liabilities and derivatives	5	–	5
Other current payables	57	–	57
Accrued liabilities	203	–	203
Current customer advances	366	–366	–
Current income taxes payable	65	–	65
Current post-employment benefit liabilities	17	–	17
Other current provisions	76	–	76
Current liabilities	1 154	10	1 164
Non-current loans and borrowings	463	–	463
Other non-current liabilities	37	–	37
Non-current post-employment benefit liabilities	419	–	419
Deferred tax liabilities	165	–	165
Other non-current provisions	126	–	126
Non-current liabilities	1 210	–	1 210
Total liabilities	2364	10	2374
Share capital	340	–	340
Treasury shares	–4	–	–4
Retained earnings and reserves	1 634	1	1 635
Equity attributable to shareholders of the parent	1 970	1	1 971
Non-controlling interests	18	–	18
Total equity	1 988	1	1 989
Total liabilities and equity	4352	11	4363

Effects on consolidated cash flow statement

in CHF million	January 1 to December 31, 2017, as reported	Effects from the adoption of IFRS 15	January 1 to December 31, 2017, restated
Net result	152	-1	151
Income taxes	63	-	63
Interest expense (net)	11	-	11
Depreciation of property, plant and equipment	130	-	130
Amortization of intangible assets	61	-	61
Impairment losses on property, plant and equipment	5	-	5
Addition to other provisions (net)	26	-	26
Decrease in post-employment benefit liabilities	-18	-	-18
Gain on sale of discontinued operations, net of income taxes	-6	-	-6
Income taxes paid	-41	-	-41
Other non-cash items	22	-	22
Cash flow from operating activities before changes in net current assets	405	-1	404
Increase in receivables, contract assets, prepaid expenses and accrued income	-140	20	-120
Increase in inventories	-59	-29	-88
Increase in payables, accrued liabilities and use of other provisions	91	-	91
Increase in customer advances/contract liabilities	181	10	191
Cash flow from changes in net current assets	73	1	74
Cash flow from operating activities	478	-	478
Purchase of property, plant and equipment	-202	-	-202
Purchase of intangible assets	-35	-	-35
Acquisition of subsidiaries, net of cash acquired	-26	-	-26
Acquisition of associates	-11	-	-11
Purchase of financial investments	-14	-	-14
Proceeds from sale of property, plant and equipment	5	-	5
Proceeds from sale of financial investments	40	-	40
Interest received	6	-	6
Cash flow from investing activities	-237	-	-237
Dividends paid	-104	-	-104
Repayment of financial debt	-6	-	-6
Acquisition of non-controlling interests	-9	-	-9
Proceeds from foundation of subsidiaries with non-controlling interests	5	-	5
Interest paid	-18	-	-18
Cash flow from financing activities	-132	-	-132
Conversion adjustments to cash and cash equivalents	11	-	11
Increase in cash and cash equivalents	120	-	120
Cash and cash equivalents at the beginning of the year	751	-	751
Cash and cash equivalents at the end of the year	871	-	871
Increase in cash and cash equivalents	120	-	120

Principles of consolidation

Subsidiaries

December 31 is the uniform closing date for all subsidiaries included in the consolidated financial statements. Subsidiaries are all entities over which OC Oerlikon Corporation AG, Pfäffikon has control. The Group controls an entity when it is exposed to, or has rights to, variable returns from its involvement with the company and has the ability to affect those returns through its power over the entity. The financial statements of subsidiaries are included in the consolidated financial statements of the Oerlikon Group from the date on which control commences until the date on which control ceases.

Non-controlling interests are recorded separately under equity in the consolidated financial statements. Transactions with non-controlling interests that do not result in loss of control are accounted for as equity transactions.

All consolidated subsidiaries held are shown in the listing at the end of the notes.

Disposal of subsidiaries

When the Group ceases to have control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary and any related non-controlling interests and other components of equity. Any resulting gain or loss is recognized in the income statement. Amounts previously recognized in other comprehensive income that may be reclassified to the income statement are reclassified to the income statement. Any retained interest in the former subsidiary is remeasured to its fair value at the date when control is lost.

Associates

Associates are all entities over which the Group has significant influence, but not control or joint control, over the financial and operating policies (generally accompanying a shareholding of between 20 % and 50 % of the voting rights). Investments in associates are accounted for using the equity method. Under the equity method, the investment is initially recognized at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss and the comprehensive income of the investee after the date of acquisition until the date on which significant influence ceases.

Joint arrangements

Investments in joint arrangements are classified as either joint operations or joint ventures depending on the contractual rights and obligations of each investor. The Oerlikon Group has assessed the nature of its joint arrangements and determined them to be joint ventures. Joint ventures are accounted for using the equity method (see above under "Associates").

Business combinations and goodwill

The Oerlikon Group accounts for business combinations using the acquisition method when control is transferred to the Group (see above under "Subsidiaries"). At the date of their initial consolidation, the identifiable assets acquired and liabilities assumed of subsidiaries are measured at fair value. Goodwill is measured at the acquisition date as the fair value of the consideration transferred plus the amount of non-controlling interests in the acquiree less the net recognized assets. Transaction costs are expensed as incurred,

except if related to the issue of debt or equity. Goodwill denominated in foreign currencies is translated into Swiss francs at the rates prevailing at the balance sheet date.

Translation of foreign currencies

The accounts of foreign entities are prepared in the relevant functional currency and translated into Swiss francs in accordance with IAS 21. An entity's functional currency is the currency of the primary economic environment in which the entity operates, or its local currency. In the consolidation, assets and liabilities of foreign subsidiaries are translated into Swiss francs at the exchange rate prevailing on the balance sheet date, while income, expenses and cash flows are translated using average rates for the year. Differences resulting from the application of different exchange rates are recognized in other comprehensive income. Exchange gains and losses, as recorded in the individual company accounts of subsidiaries, are included in the income statement. Excluded from this rule are specific long-term intercompany monetary items that form part of the net investment in a foreign subsidiary, whose exchange translation differences are recognized in other comprehensive income. In the year that a foreign entity is divested, the cumulative translation differences recorded in other comprehensive income are reclassified to the income statement as part of the gain or loss upon disposal.

Elimination of intercompany profits

Profits on intercompany sales not yet realized through sales to third parties, as well as profits on transfers of fixed assets and investments in subsidiaries, are eliminated.

Segment information

The Segment reporting of the Oerlikon Group is in accordance with the "management approach" and based on the internal structure and reporting. The Executive Committee is an advisory body to the Chief Executive Officer (CEO). The CEO performs the function of the Chief Operating Decision Maker (CODM), assesses performance and makes resource allocation decisions. The CODM receives information on Business Unit level for the Surface Solutions Segment. In accordance with the aggregation criteria of IFRS 8, these Business Units have been aggregated to one reportable Segment.

The internal reporting to the Executive Committee and the Board of Directors is based on uniform Group accounting principles, which correspond to those used in the consolidated financial statements. Intersegment pricing is determined on an arm's length basis.

The Group consists of the following reportable Segments:

- Surface Solutions Segment is a world-leading supplier of advanced materials and surface technologies for components and tools used in a wide range of industrial applications where superior materials and surface performance are required.
- Manmade Fibers Segment is a world market leader for solutions and systems used to manufacture manmade fibers that enable customers to produce high-quality synthetic fibers.

Assets

Financial assets: Financial assets such as Cash and cash equivalents (Note 8), Current and non-current financial investments and derivatives (Note 9), Trade and trade notes receivable (Note 10), Other receivables (Note 10), and Loans and other non-current financial receivables (Note 10), are initially measured at fair value. Subsequent measurement depends on their classification according to IFRS 9 based on the entity's business model either at amortized cost, fair value through profit and loss or fair value through OCI. For more information please refer to Note 19.

Contract assets: Contract assets are an entity's right to consideration in exchange for goods or services that the entity has transferred to a customer when that right is conditioned on something other than the passage of time (for example, the entity's future performance). Contract assets include incremental costs to fulfill a contract.

Inventories: Inventories consisting of raw materials, purchased components and trade merchandise are carried at the lower of cost or net realizable value, using FIFO or weighted average cost valuation methods. Self-made components, work in progress and finished goods are carried at production cost. This includes all related material and labor costs, as well as a reasonable allocation of indirect production costs. Recognizable reductions in value resulting from excess inventory, reduced replacement cost or sales price and similar are taken into account through appropriate write-downs of inventory items.

Property, plant and equipment: Tangible fixed assets are recorded at historical purchase or production costs, less necessary depreciation. Components of PP&E that have a differing useful life are recorded separately and depreciated accordingly (component approach). Depreciation is calculated on a straight-line basis according to the expected useful life of the asset, as follows:

IT hardware	3–7 years
Company cars	4–7 years
Trucks and electric vehicles	5–10 years
Technical installations and machines	5–15 years
Other operating and business equipment	3–15 years
Central building installations	10–25 years
Leasehold improvements	2–20 years
Plant and administrative buildings – used operationally	20–60 years

Estimated useful lives and residual values are examined annually.

Fixed assets under financial leasing agreements are treated identically to fixed assets owned.

Major spare parts and servicing equipment qualify as property, plant and equipment when an entity expects to use them during more than one period.

Intangible assets and goodwill: Intangible assets are identifiable non-monetary assets without physical substance from which future economic benefits are expected to flow to the Group. Intangible assets are amortized on a straight-line basis over their expected useful lives, as follows.

Software	2–3 years
Development costs	5 years
ERP platform	7 years
Acquired technologies	5–10 years
Acquired customer relationships	5–23 years

In the case of intangible assets with indefinite useful lives, an impairment test of the asset value is conducted annually at the balance sheet date, or earlier on the occurrence of a triggering event. Goodwill and brands are not amortized, but instead tested annually for possible value impairment.

Development costs are recognized as intangible assets if they meet the criteria for such recognition set forth in IAS 38. The cost capitalized comprises all costs directly attributable to the development process. After the development phase is complete, the asset is amortized over its estimated useful life.

Liabilities

Financial liabilities: Financial liabilities, such as Trade payables (Note 15), Current financial liabilities and derivatives (Note 15), Other current payables (Note 15), Non-current loans and borrowing (Note 18), and Other non-current liabilities (Note 19), are initially measured at fair value less directly attributable costs. Subsequent measurement depends on their classification according to IFRS 9 either at amortized cost, fair value through profit and loss or fair value through OCI. For more information please refer to Note 19.

Contract liabilities: Contract liabilities are an entity's obligation to transfer goods or services to a customer for which the entity has received consideration (or the amount is due) from customers.

Current and non-current provisions: Provisions are set up for obligations arising from past events if the future outflow of resources is more likely than not and can be estimated reliably. Other provisions represent uncertainties, for which a best estimate is made in arriving at the amount reserved. Non-current provisions are discounted at a pretax rate that reflects the current market assessments of the time value of money.

Restructuring provisions: Provisions are established in cases where a detailed restructuring plan exists and the Group has informed those concerned, or the restructuring process has started.

Onerous contracts: Provisions are established when unavoidable estimated costs to fulfill a contract exceed the related contract revenues. The difference is provided against income in the current period. When accounts are prepared, the related risks are reassessed systematically by all Business Units and all costs are adjusted as required. This reassessment is generally based on the "most likely outcome", which uses assumptions regarding technical feasibility and timely realization of the projects and includes a quantification of the risks. The actual future obligation can vary from these estimates.

Warranty provisions: Provisions are established for known customer claims and also for potential warranty exposure.

Product liability: Provisions are established for known claims; potential exposure is not provided for.

Acquirees' contingent liabilities: In a business combination, a contingent liability of the acquiree is recognized in acquisition accounting if it is a present obligation that arises from past events and its fair value can be measured reliably. The probability of payment being required is not relevant in determining whether a contingent liability that is a present obligation should be recognized in a business combination, but this probability will impact its fair value. A contingent liability recognized is initially measured at its fair value. Subsequently, it is measured at the higher of its acquisition-date fair value and the amount that would be recognized in accordance with the requirements for provisions above. A contingent liability initially recognized in a business combination is not derecognized until it is settled, cancelled or it expires.

Post-employment benefits provisions: The Oerlikon Group operates various post-employment benefit schemes, including both defined benefit and defined contribution plans.

A defined contribution plan is a post-employment benefit plan under which the Group pays fixed contributions into a separate entity. The Group will have no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods.

A defined benefit plan is a post-employment benefit plan other than a defined contribution plan.

The liability (asset) recognized in the balance sheet in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets, taking into account any asset ceiling. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating to the terms of the related pension obligation.

Remeasurements of the net defined benefit liability (asset) are charged or credited to other comprehensive income in the period in which they arise.

Current and past-service costs are recognized immediately in the income statement (operating result).

Net interest on the net defined benefit liability comprises interest income on plan assets, interest cost on the defined benefit obligation and interest on the effect of asset ceiling. The net interest is calculated using the same discount rate that is used in calculating the defined benefit obligation, applied to the net defined liability at the start of the period, taking into account any changes from contribution or benefit payments. Net interest on the net defined benefit liability is recognized in the income statement (financial result).

The contributions to defined contribution plans are recognized in the income statement (operating result) when they are due. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in the future payments is available.

Treasury shares: Treasury shares are shown as a reduction of shareholders' equity. Gains or losses arising from the sale of treasury shares are also shown in the consolidated statement of changes in equity, in retained earnings.

Income statement

Sales of goods and services: Revenue is recognized to depict the transfer of promised goods or services to the customer in an amount that reflects the consideration to which the entity expects to be entitled in exchange for those goods or services. Revenue is recognized when performance obligations have been satisfied, i.e. when control of goods or services has been transferred to the customer, and if it is probable that the economic benefits will flow to the company. In accordance with the recognition criteria of IFRS 15, control may be transferred either at a point in time or over time.

Revenue is measured based on the consideration the Oerlikon Group received or expects to receive in exchange for its goods and services. If a contract contains more than one performance obligation, the overall consideration is allocated to the different components affected, based on the standalone observable selling price of each performance obligation or through other suitable methods mentioned in IFRS 15. The consideration received in exchange for its goods or services may be fixed or variable. Variable consideration is only recognized when it is highly probable that a significant reversal of cumulative recognized revenue will not occur. The respective estimate is updated regularly. Sales commissions, which the company would have not incurred if the contract was not obtained, are recognized as contract costs (assets) if they meet the criteria set forth in IFRS 15. Unless the amortization period is less than one year (expensed as occurred), contract costs are amortized over the duration of the contract and subject to impairment. Sales payment terms are in line with the industry's standards, and deferred payment terms are agreed only in rare circumstances.

Remaining performance obligation: Remaining performance obligation is the aggregate amount of consideration to which an entity expects to be entitled in the future in exchange of transferring promised goods or services to a customer (promised in a contract), which are unsatisfied, or partially unsatisfied, as of the end of the reporting period. Some practical expedients set forth in IFRS 15 have been adopted. The Group does not disclose the amount of consideration allocated to the remaining unsatisfied performance obligations for all reporting periods presented before the date of initial application of the standard (January 1, 2018). Additionally, no disclosure is given for performance obligations related to contracts with original expected duration of one year or less. Although conceptually very similar, the calculation of remaining performance obligations does not necessarily align to the disclosed order backlog. A remaining performance obligation only qualifies as order backlog when specific cash down payments or additional pre-conditions in terms of customers financing are fulfilled.

Other income and expenses: Other income consists of income from real estate, investments, licenses, patents, income from a risk and revenue share agreement and non-operating assets. Other expense consists of non-operating expenses, taxes not based on income, expenses related to a risk and revenue share agreement and integration and acquisition costs.

Financial expenses: Interest expense is recognized in the income statement by using the effective interest rate method. Borrowing costs that can be directly allocated to the construction, build-up or purchase of a qualified asset are capitalized through the costs of the assets.

Current income taxes: Current income taxes are accrued on the basis of income reported locally for the financial year by the individual Group companies in keeping with the current year taxation principle.

Deferred taxes: Wherever local company tax values differ from Group values (temporary differences), deferred taxes are determined and recorded by applying tax rates enacted or substantially enacted at the balance sheet date to the differences (balance sheet liability method). Taxes on dividends from subsidiaries are only accrued when distributions are contemplated. The value of deferred tax assets deriving from tax losses carried forward is subject to annual review. Tax losses are only recognized as assets if they are expected to be realized within the next five years, offset against taxable profits of Group companies individually or in tax groups. In countries or companies where realization of the losses cannot be foreseen, no asset is recognized. Management believes that its estimates are appropriate and that uncertainties in the valuation of tax assets and liabilities have been appropriately addressed. Deferred tax is not recognized for: a) temporary differences arising on the initial recognition of assets or liabilities in a transaction that is not a business combination, and that affects neither accounting profit nor taxable profit or loss; b) temporary differences related to investments in subsidiaries to the extent that it is probable that they will not reverse in the foreseeable future; and c) taxable temporary differences arising on the initial recognition of goodwill.

Earnings per share: Earnings per share (EPS) is based on the portion of consolidated net profit attributable to shareholders of OC Oerlikon Corporation AG, Pfäffikon divided by the weighted average number of shares outstanding during the reporting period. Diluted earnings per share additionally take into account all potential equity securities that could have come into existence as the result of an exercise of option rights.

Discontinued operations and assets and liabilities classified as held for sale

A component of the Group is reclassified into "discontinued operations" if its divestment is intended, and if it fulfills the criteria for being classified as "held for sale" and for being presented as discontinued operations. Non-current assets and disposal groups held for sale are carried at the lower of their carrying amount or fair value less cost to sell, and any value impairments are recognized in the income statement. Depreciation of non-current assets ceases when the respective qualification as assets held for sale is met.

All disclosures in the notes to the consolidated financial statements refer to continuing operations, except where otherwise indicated.

Risks

Financial risk management/financial instruments: Due to its international activities, the Group is exposed to various financial risks, such as market risks (including foreign exchange risk, interest rate risk and pricing risk), credit risk and liquidity risk. The Group's financial risk management aims to limit any adverse effects that the markets may have on the Group's financial health, at an acceptable hedging cost. Risk limitation does not mean complete exclusion of financial risks, rather it means following a policy of economically sensible management of the Group's finances within an agreed framework of documented authority. The Group uses derivative financial instruments to hedge certain risks. Only preapproved instruments are used, and as a fundamental rule, no speculative transactions are conducted in the areas of foreign exchange or interest rates. No hedges are entered into without a corresponding base transaction. Management monitors and steers such risks continuously with the support of Group Treasury, which identifies and evaluates all financial risks, working with the Group's operating companies and hedging the risks as appropriate. The Group has documented guidelines for financial risk management, covering the use of derivative and non-derivative financial instruments and policies for use of surplus funds.

Foreign exchange risks: Risks related to fluctuations in foreign currencies are in certain instances hedged at Group level (refer to Note 19 "Financial instruments").

Interest rate risks: Risks related to fluctuations in interest rates are monitored by Group Treasury and in certain instances hedged at Group level (refer to Note 19 "Financial instruments").

Credit risks: Risks of financial loss if a customer or counterparty to a financial instrument fails to meet its contractual obligations are monitored locally by the individual Group companies (refer to Note 19 "Financial instruments").

Liquidity risks: The Oerlikon Group supervises and manages the Group's liquidity centrally to ensure that outstanding financial liabilities can at all times be met within their maturity period and at an acceptable financing cost (refer to Note 19 "Financial instruments").

Contingent liabilities

Contingent liabilities represent potential obligations whose impact depends on the occurrence of one or more future events that cannot be influenced. Contingent liabilities are also existing obligations that are not expected to result in a future outflow of benefits, or where the outflow of benefits cannot reliably be quantified.

Participation plans/share-based payments

Members of the Executive Committee and senior management may receive a portion of their compensation as a long-term bonus in the form of awards for OC Oerlikon Corporation AG, Pfäffikon shares under various plans. The fair value is determined on the day such share-based remuneration is granted and charged to the income statement on a straight-line basis over the vesting period within operating results, with a corresponding increase in equity (equity settled plans).

Related party transactions

Members of the Board of Directors or Executive Committee, significant shareholders and companies controlled or jointly controlled by any of those individuals as well as post-employment benefit plans of the Group are deemed to be related parties.

Notes to the consolidated financial statements

Group structure

Note 1

Subsidiaries

A list of Oerlikon's subsidiaries can be found on pages 156 and 157.

During the financial year 2018, the following significant changes in the Group structure have occurred:

Acquisitions

On February 19, 2018, the Oerlikon Group acquired all outstanding equity interests of DIARC-Technology Oy.

On March 1, 2018, the Oerlikon Group acquired all outstanding equity interests of Sucotec AG.

On April 25, 2018, the Oerlikon Group acquired all outstanding equity interests of AC-Automation GmbH & Co. KG and AC-Verwaltungs GmbH.

On May 31, 2018, the Oerlikon Group acquired all outstanding equity interests of DiSanto Technology Inc. The company was subsequently renamed to Oerlikon AM Medical Inc.

On June 12, 2018, the Oerlikon Group acquired all outstanding equity interests of Renfort Investments Sp.z.o.o. The company was subsequently renamed to Oerlikon Business Services Europe Sp.z.o.o.

On October 8, 2018, the Oerlikon Group acquired all outstanding equity interests of Härtereipl.-Ing. Peter Eicker KG. Further information can be found in Note 2 "Acquisitions and Divestments".

Foundation of subsidiaries

As of January 25, 2018, GK Drive Systems Baoding Co. Ltd. was founded (Oerlikon's share being 51 %).

As of May 18, 2018, Graziano Fairfield E-Drive Systems (Changshu) Co. Ltd. was founded.

As of October 29, 2018, Oerlikon Balzers Coating Taiwan Co. Ltd. was founded.

As of December 18, 2018, OT Textile Verwaltungs GmbH i. Gr. was founded.

Mergers

On July 13, 2018, DMX SAS was merged into Oerlikon Balzers France SAS.

On October 8, 2018, Härtereipl.-Ing. Peter Eicker KG was merged into Oerlikon Metaplas GmbH.

On October 31, 2018, DIARC-Technology Oy was merged into Oerlikon Balzers Coating Finland Oy.

On November 30, 2018, citim AM LLC was merged into Oerlikon AM US Inc.

On November 30, 2018, Melco Industries Inc. was merged into Oerlikon Management USA Inc.

On November 30, 2018, OC Oerlikon Textile Schweiz AG, Pfäffikon, was merged into OC Oerlikon Textile Holding AG, Pfäffikon.

On December 20, 2018, Primateria AB was merged into Oerlikon Balzers Coating Sweden AB.

Divestments

On November 21, 2018, the Oerlikon Group sold 50 % of Oerlikon RS GmbH (company without significant operations) to a third party. The company is no longer controlled by the Group and therefore not consolidated anymore. The sale of the 50 % share of Oerlikon RS GmbH had no effect on the consolidated income statement.

Non-controlling interests

The following Group companies have non-controlling interests as at December 31:

Company	Non-controlling interests in %		
	Country	2018	2017
GK Drive Systems (Suzhou) Co. Ltd.	China	49.00	49.00
GK Drive Systems (Baoding) Co. Ltd.	China	49.00	–
Oerlikon Barmag Huitong (Yangzhou) Engineering Co. Ltd.	China	40.00	40.00
Zigong Golden China Speciality Carbides Co., Ltd.	China	40.00	40.00
Fairfield Atlas Ltd.	India	1.63	1.63
Oerlikon Balzers Coating Luxembourg S.à r.l.	Luxembourg	40.00	40.00
Oerlikon Balzers Coating Korea Co. Ltd.	South Korea	10.10	10.10

The share that non-controlling interests have in the Oerlikon Group's activities and cash flows is not material.

Interests in joint arrangements and associates

The Oerlikon Group does not hold any significant interests in joint arrangements and associates.

Significant prior-year changes in Group structure**Acquisitions**

On May 1, 2017, the Oerlikon Group acquired all outstanding equity interests of Scoperta Inc.

On September 29, 2017, the Oerlikon Group acquired all outstanding equity interests of Primateria AB.

Further information can be found in Note 2 "Acquisitions and Divestments".

Foundation of subsidiaries

As of February 20, 2017, GK Drive Systems (Suzhou) Co. Ltd. was founded (Oerlikon's share being 51 %).

As of July 19, 2017, Oerlikon AM US Inc. was founded.

As of September 20, 2017, Oerlikon AM GmbH and AM Munich Research Institute GmbH were founded.

Acquisition of non-controlling interests

During 2017, the Oerlikon Group purchased non-controlling interests in Oerlikon Balzers Sandvik Coating Oy and Oerlikon Balzers Sandvik Coating AB, increasing the ownership from 51 % to 100 % in both cases.

Acquisitions and Divestments

Note 2

Acquisitions in 2018

On February 19, 2018, Oerlikon acquired **DIARC-Technology Oy**, a provider of surface engineering technologies and services in Finland. The acquisition will enhance the range of technologies provided by Oerlikon Balzers in the automotive and precision components industries and expand its portfolio of surface treatments.

On March 1, 2018, Oerlikon acquired **Sucotec AG**, a Swiss manufacturer specializing in CVD (Chemical Vapour Deposition) equipment for the tools market. The acquisition enhances the range of products and services provided by Oerlikon Balzers.

On April 25, 2018, Oerlikon acquired **AC-Automation GmbH & Co. KG**, a German engineering company specializing in large-scale plant automation solutions for the textile and packaging industries. The integration of AC-Automation in Oerlikon expands the market-leading technology portfolio of the Manmade Fibers Segment.

On May 31, 2018, Oerlikon acquired **DiSanto Technology Inc.** The company is based in Connecticut, USA, and offers manufacturing and engineering services for surgical implant and instrument systems, specializing in the orthopedic and spine markets. The acquisition allows Oerlikon's Additive Manufacturing Business Unit, part of the Surface Solutions Segment, to further expand into the medical market.

On October 8, 2018, Oerlikon acquired **Härterei Dipl.-Ing. Peter Eicker KG** in Germany, a specialised heat treatment supplier for the automotive industry. The acquisition allows Oerlikon Balzers to expand the plasma nitriding service offering for customers and to strengthen its position in the automotive market.

The total purchase consideration for the acquisitions mentioned above amounts to CHF 38 million and it includes CHF 34 million paid in cash in the reporting period, CHF 1 million payable within the next two years and contingent consideration of CHF 3 million. The contingent consideration relates to earnout arrangements that are based on financial metrics (achievement of certain pre-defined sales targets) as well as non-financial metrics (operational targets and employee retention targets). The potential undiscounted amount payable under the agreements amounts to between CHF 0 million and CHF 3 million. The fair value of the contingent consideration was estimated by calculating the present value of the expected future cash flows. The calculations are based on the current estimates of the fulfillment of the conditions on which the payment of the earnouts depends and a discount rate of 2.7 %.

The goodwill of CHF 14 million arising from the acquisitions is mainly attributable to the strengthening of the market position, the expertise of the workforce and the expected synergies from combining the operations of the acquired businesses with the Oerlikon Group. Goodwill in the amount of CHF 8 million is expected to be deductible for income tax purposes.

The following table summarizes the consideration paid for the acquisitions and the fair value of assets acquired and liabilities assumed at the acquisition date.

Consideration at the date of acquisition

in CHF million	2018
Cash	34
Consideration payable within the next two years	1
Contingent consideration	3
Total consideration	38

Recognized amounts of identifiable assets acquired and liabilities assumed

in CHF million	2018
Cash and cash equivalents	15
Trade receivables	3
Other receivables, prepaid expenses and accrued income	8
Inventories	6
Loans and other non-current financial receivables	2
Property, plant and equipment	9
Intangible assets	13
Deferred tax assets	2
Trade payables	-2
Current contract liabilities	-20
Other current payables and accrued liabilities	-8
Other non-current liabilities	-1
Deferred tax liabilities	-1
Total identifiable net assets	26
Goodwill	14
Gain from bargain purchase	-2
Total	38

Acquisitions and Divestments

Note 2 (cont.)

The amounts recognized for the acquisitions are preliminary. Due to the timing of the acquisitions, certain information required to complete the recognition of the acquisitions remains outstanding.

Acquisition-related costs of CHF 1 million and gain from bargain purchase of CHF 2 million have been recognized under other expense/income in the consolidated income statement for the period ended December 31, 2018. The gain from bargain purchase resulted from the excess of the fair value of net assets acquired over the purchase price.

Since their acquisition, the acquired businesses have contributed CHF 24 million to total sales and CHF -5 million to the net income of the Oerlikon Group. Had the transactions taken place at January 1, 2018, the Group's total sales and net income for the period ended December 31, 2018 would have amounted to approximately CHF 2 631 million and CHF 244 million, respectively. These amounts have been determined based on the assumption that the fair-value adjustments at the acquisition date would have been the same at January 1, 2018.

Acquisitions in 2017

On February 10, 2017, Oerlikon acquired the carbide technology business from **Recentis** Advanced Materials Canada Inc., Québec, Canada. The acquisition expands the technology portfolio of Oerlikon's Surface Solutions Segment.

On May 1, 2017, Oerlikon acquired all equity interests of **Scoperta** Inc., California, USA. Scoperta is an innovative solution provider in advanced materials development. With the acquisition, Oerlikon gains for its Surface Solutions Segment unique and proprietary process technology and expertise in rapidly designing and developing materials using computational software, which enables a fast identification of innovative material solutions.

On September 29, 2017, Oerlikon acquired all equity interests of **Primateria** AB, Sweden. Primateria is a provider of surface engineering services in Sweden, specializing in pre- and post-treatment solutions for tool optimization. With the acquisition, the Surface Solutions Segment strengthens its foothold in the gear cutting market, especially in Sweden, and will be able to provide even greater know-how and a broader portfolio of surface treatments to its customers worldwide.

On October 31, 2017, Oerlikon acquired certain assets of **DiaPac** LLC and **Diamond** Recovery Services Inc (DRS) in the US. DiaPac LLC is an internationally recognized leader in providing high-performance powdered metals, wear resistant surface coatings and cemented carbides for use in oil & gas, mining, construction, agricultural and manufacturing operations. Diamond Recovery Services (DRS) specializes in providing hard materials and environmentally complementary reclamation services that are applied across a broad spectrum of applications. With the acquisition, Oerlikon gains for its Surface Solutions Segment strong complementary knowledge for the manufacturing, processing, application and recovery/recycling of advanced materials, especially tungsten carbide. It will also benefit from an expansion of market access in the oil & gas, metal matrix composites and US powdered metals industries.

The purchase consideration for the acquisitions of CHF 60 million includes CHF 27 million paid in cash in 2017 and contingent consideration of CHF 33 million. The contingent consideration relates to earnout arrangements that are based on financial metrics (achievement of certain predefined sales targets) as well as non-financial metrics (operational targets and employee retention targets). The potential undiscounted amount payable under the agreements is between CHF 0 million and CHF 43 million. The fair value of the contingent consideration was estimated by calculating the present value of the expected future cash flows. The calculations are based on the current estimates of the fulfillment of the conditions on which the payment of the earnouts depends and discount rates between 2.2% and 3.3%. A further expense of CHF 5 million will be incurred mainly in 2018 and 2019 for post-acquisition services to be rendered. In 2018, the earnout liabilities relating to the above acquisitions were reassessed, as a result of which an income of CHF 2 million was recognized under other income in the consolidated income statement.

The goodwill of CHF 23 million arising from the acquisitions is mainly attributable to the strengthening of the market position, the expertise of the workforce and the expected synergies from combining the operations of the acquired businesses with the Oerlikon Group. Goodwill in the amount of CHF 6 million is expected to be deductible for income tax purposes.

The following table summarizes the consideration paid for the acquisitions and the fair value of assets acquired and liabilities assumed at the acquisition date.

Consideration at the date of acquisition

in CHF million	2017
Cash	27
Contingent consideration	33
Total consideration	60

Recognized amounts of identifiable assets acquired and liabilities assumed

in CHF million	2017
Cash and cash equivalents	1
Trade receivables	1
Inventories	5
Property, plant and equipment	4
Intangible assets	31
Trade payables	-1
Deferred tax liabilities	-4
Total identifiable net assets	37
Goodwill	23
Total	60

Acquisitions and Divestments

Note 2 (cont.)

Acquisition-related costs of CHF 1 million have been recognized under other expense in the consolidated income statement for the year ended December 31, 2017.

From the date of acquisition until December 31, 2017, the acquired businesses have contributed CHF 3 million to total sales and CHF -4 million to the net income of the Oerlikon Group. Had the transactions taken place at January 1, 2017, the Group's total sales and net income for the year ended December 31, 2017 would have amounted to approximately CHF 2 086 million (restated) and CHF 150 million (restated), respectively. These amounts have been determined based on the assumption that the fair-value adjustments at the acquisition date would have been the same at January 1, 2017.

Divestment of the Drive Systems Segment in 2018

On July 29, 2018, the Oerlikon Group signed an agreement to divest its Drive Systems Segment to Dana Incorporated. Consequently, the Drive Systems Segment is presented as a disposal group held for sale and as discontinued operations. As per December 31, 2018, the disposal group held for sale comprised assets of CHF 866 million and liabilities of CHF 363 million. The disposal group was not a discontinued operation or classified as held for sale as of December 31, 2017. The comparative consolidated income statement has been restated to show the discontinued operation separately from the continuing operations.

Cumulative exchange differences relating to foreign operations to be disposed of previously recognized in other comprehensive income will be reclassified to the income statement on disposal of the Segment, i.e. when control of the subsidiaries is lost. As at December 31, 2018, the cumulative exchange differences concerned were negative (CHF -297 million) and therefore management assumes that a loss will be reclassified from other comprehensive income to the income statement on disposal.

The transaction closed on February 28, 2019 – for details refer to Note 27 "Subsequent events".

Divestment of the tape and monofilament technologies in 2018

On May 22, 2018, the Oerlikon Group signed an agreement with the Austrian Starlinger Group to divest its tape and monofilament technologies. The transaction closed on October 1, 2018, resulting in the derecognition of assets of CHF 26 million and liabilities of CHF 7 million from the Manmade Fibers Segment.

The Oerlikon Group incurred a loss on disposal from this transaction in the amount of CHF 2 million, which is included in other expense in the consolidated income statement for the year ended December 31, 2018.

Divestment of the Vacuum Segment in 2016

In 2017, the reassessment of liabilities related to the sale resulted in an income of CHF 6 million.

Acquisitions and Divestments

Note 2 (cont.)

Result from discontinued operations

in CHF million	January 1 to December 31, 2018	January 1 to December 31, 2017, restated		Total
	Drive Systems Segment	Vacuum Segment	Drive Systems Segment	
Total sales	845	–	726	726
Total expenses	-725	–	-676	-676
Result before taxes (EBT) from operating activities	120	–	50	50
Income taxes	-25	–	–	–
Result from operating activities	94	–	50	50
Costs related to divestment (net of tax)	-21	–	–	–
Gain on sale of discontinued operations before reclassification of translation differences and other items of other comprehensive income	–	5	–	5
Income tax on sale of discontinued operations	–	1	–	1
Net result from discontinued operations	73	6	50	56
Attributable to:				
Shareholders of the parent	72	6	49	55
Non-controlling interests	1	–	1	1
Earnings per share in CHF	0.21	0.02	0.14	0.16
Diluted earnings per share in CHF	0.21	0.02	0.14	0.16

Cash flow from discontinued operations

in CHF million	January 1 to December 31, 2018	January 1 to December 31, 2017, restated		Total
	Drive Systems Segment	Vacuum Segment	Drive Systems Segment	
Cash flow from operating activities	82	–5	113	108
Cash flow from investing activities	-75	–	-73	-73
Cash flow from financing activities	–	–	5	5
Net cash flows from discontinued operations	7	-5	45	40

Acquisitions and Divestments

Note 2 (cont.)

Disposal group classified as held for sale

The assets and liabilities of the disposal group classified as held for sale are measured at the lower of their carrying amount and fair value less cost to sell and are presented separately on the balance sheet. Based on the decision to sell the disposal group, impairment reviews were performed which revealed no need for impairment. Fair value less cost to sell has been determined based on the expected sales proceeds as contractually agreed with the third party buyers. This is a level 3 fair value measurement.

As of December 31, 2018, the following assets and liabilities have been classified as held for sale:

Assets classified as held for sale

	2018
	Drive Systems Segment
in CHF million	
Cash and cash equivalents	94
Current financial investments and derivatives	3
Trade and trade notes receivable	143
Other receivables, prepaid expenses and accrued income	21
Current income tax receivables	7
Inventories	192
Non-current financial investments	8
Property, plant and equipment	300
Intangible assets	77
Deferred tax assets	21
Total assets classified as held for sale	866

Liabilities classified as held for sale

	2018
	Drive Systems Segment
in CHF million	
Trade payables	153
Current contract liabilities	12
Current financial liabilities and derivatives	2
Other current payables	14
Accrued liabilities	37
Current income taxes payable	4
Current post-employment benefit liabilities	1
Other current provisions	21
Non-current loans and borrowings	6
Other non-current liabilities	2
Non-current post-employment benefit liabilities	55
Deferred tax liabilities	22
Other non-current provisions	34
Total liabilities classified as held for sale	363

Other income and expense

Note 3

	2018	2017, restated
in CHF million		
Licensing, patent and know-how income	2	2
Other income	40	28
Other income	42	30
Taxes not based on income	-9	-9
Other expense	-21	-23
Other expense	-30	-32
Other income and expense, net	12	-2

Expenses included in EBIT

Note 4

in CHF million	2018	2017, restated
Personnel expense		
Salaries and wages	627	552
Social security and other employee benefits ¹	154	129
Total	782	681
Depreciation and amortization		
– Property, plant and equipment	97	91
of which in:		
Cost of sales	76	73
Marketing and selling	2	2
Research and development	6	5
Administration	12	10
– Intangible assets	65	59
of which in:		
Cost of sales	1	1
Marketing and selling	19	17
Research and development	35	31
Administration	10	11
Total	161	150

¹ Included in the expense for social security and other employee benefits is CHF 29 million (previous year, restated: CHF 20 million) attributable to specific post-employment benefit plans of the individual companies. The remainder includes the legally required benefit contributions of Group companies, as well as other social security expenses.

Financial income and expense

Note 5

in CHF million	2018	2017
Interest income	9	6
Other financial income	2	1
Foreign currency gain, net	10	3
Financial income	21	10
Interest on financial debt	-9	-10
Interest on liabilities for defined benefit plans, net	-5	-5
Other financial expense	-6	-5
Net loss on hedging transactions recognized in the income statement	-4	-
Financial expense	-24	-19
Financial expense, net	-3	-9

Income taxes

Note 6

in CHF million	2018			2017, restated		
	Continuing operations	Discontinued operations	Total	Continuing operations	Discontinued operations	Total
Current income tax expense (-)/ income (+)	-63	-17	-80	-75	-13	-88
Deferred tax income (+)/ expense (-)	-4	-9	-14	11	14	25
Total	-68	-26	-94	-64	1	-63

Analysis of tax expense

in CHF million	2018	2017, restated
Result before taxes from continuing operations	240	159
Result before taxes from discontinued operations	99	55
Total	339	214
Tax expense from continuing operations	-68	-64
Tax expense (-)/ income (+) from discontinued operations	-26	1
Total	-94	-63
Expected tax expense ¹	-133	-67
Difference between actual and expected tax expense	39	4

The difference between the tax expense is calculated using the weighted average tax rate of Oerlikon Group (expected tax expense) of 39.0% (previous year expected tax rate: 31.0%) and the effective tax expense arises from the factors mentioned below:

Non-taxable income and non-deductible expenses	50	34
Unrecognized deferred taxes on current-year losses	-9	-9
Non-refundable withholding tax	-11	-10
Utilization of not recognized tax loss carry forwards from previous periods	6	5
Income tax for prior years	2	-6
Reversal of previously recognized tax losses	-	-8
Other effects	1	-2
Difference between actual and expected tax expense	39	4

¹ The expected tax expense is calculated from the various profits and losses of the individual Group companies, using local tax rates. From these a composite tax rate is developed, averaged over the whole Group. In 2018 this is impacted by the Group internal reorganization for the divestment of the Drive Systems Segment.

Deferred taxes

Note 6 (cont.)

Composition of deferred taxes	2018		2017	
	Deferred tax balances		Deferred tax balances	
	Assets	Liabilities	Assets	Liabilities
in CHF million				
Trade receivables	2	1	1	1
Other receivables and accruals	1	15	–	24
Inventories	44	–	48	–
Post-employment benefit assets	–	1	–	3
Financial assets	–	8	–	8
Property, plant and equipment	28	45	27	31
Assets classified as held for sale	–21	–	–	–
Intangible assets	17	162	11	176
Assets	72	233	87	243
Trade payables	1	1	2	–
Other current and non-current liabilities	3	23	11	15
Financial liabilities	9	–	1	–
Liabilities classified as held for sale	–	–22	–	–
Provisions	107	3	121	3
Liabilities	120	6	135	18
Deferred tax asset from recognized tax loss carry forwards ¹	24	–	25	–
Offsetting	– 106	– 106	– 96	– 96
Total²	110	132	151	165

¹ As per end of 2018 tax loss carry forwards of CHF 88 million for federal taxes and CHF 38 million for state/local taxes were recognized (previous year: CHF 93 million for federal taxes and CHF 38 million for state/local taxes).

² Continuing operations.

Movement in deferred tax balances during the year

in CHF million	2018	2017
Balance at January 1	–14	–
Recognized in profit or loss	–14	11
Recognized in other comprehensive income	4	–18
Acquired in acquisitions (see Note 2) ¹	1	–4
Other	–	–3
Balance at December 31	–23	–14

¹ Deferred tax liabilities due to acquisitions.

Unrecognized deferred tax liabilities:

At December 31, 2018, there are temporary differences of CHF 413 million (thereof CHF 143 million will be passed over to the buyer of the Drive Systems Segment. Total previous year: CHF 408 million) with regard to investments in subsidiaries for which no deferred tax liabilities with a potential tax effect of CHF 57 million (thereof CHF 28 million will be passed over to the buyer of the Drive Systems Segment. Total previous year CHF 52 million) were recognized since the Group controls the timing of the reversal of the related taxable temporary differences and management is convinced that they will not reverse in the foreseeable future.

Deferred taxes

Note 6 (cont.)

Utilization of tax loss carry forwards is limited as follows:

in CHF million	2018		2017		2018		2017	
	Tax losses not recognized as deferred tax assets		Tax losses not recognized as deferred tax assets		Total tax loss carry forwards		Total tax loss carry forwards	
	federal tax	state/local tax	federal tax	state/local tax	federal tax	state/local tax	federal tax	state/local tax
1 year	2	6	2	26	2	6	8	26
2 years	7	5	–	6	7	5	6	6
3 years	11	14	11	5	17	14	13	5
4 years	148	160	13	14	153	160	14	14
5 years	9	27	170	159	11	27	170	159
Over 5 years	247	194	198	150	322	231	276	188
Total	424	406	394	360	512	443	487	398

Compared to previous year tax loss carry forwards not recognized increased on federal level (increase of CHF 30 million) and on state level (increase of CHF 46 million). This is mainly due to an increase of total tax loss carry forwards.

The deferred tax on not recognized tax loss carry forwards would amount to CHF 79 million in 2018 (previous year: CHF 84 million).

Earnings per share

Note 7

Earnings per share of CHF 0.71 (previous year: CHF 0.44) have been calculated on the basis of a net income of CHF 240 million (previous year, restated: CHF 148 million), attributable to shareholders of the parent, and the average weighted number of outstanding shares (issued shares less treasury shares). In 2018, the average weighted number of shares entitled to vote and receive dividends amounted to 339 266 670 (previous year: 339 391 124). Diluted earnings per share amounted to CHF 0.71 (previous year: CHF 0.44). The average weighted number of shares used in the calculation of diluted earnings per share amounted to 339 266 670 (previous year: 339 391 124).

Number of outstanding shares	2018	2017
Total shares issued at year-end	339 758 576	339 758 576
Weighted average number of shares outstanding for the year	339 266 670	339 391 124
Effect of potential exercise of option rights	–	–
Weighted average number of shares diluted for the year	339 266 670	339 391 124

Cash and cash equivalents

Note 8

in CHF million	2018	2017
Cash, postal and bank current accounts	328	517
Time deposits	305	284
Money market funds ¹	131	70
Total	764	871

¹ Investment grade rated money market funds available on a daily basis.

CHF 278 million (previous year: CHF 249 million) of total cash and cash equivalents are held in countries in which local exchange control regulations with regards to capital export exist. If the Group complies with legal and tax regulations, such liquid funds are at its disposition within a reasonable period of time.

Cash and cash equivalents are held in the following currencies:

Currency

in CHF million	2018	2017
CHF	328	312
EUR	106	266
USD	24	39
CNY	249	180
Other	57	74
Total	764	871

Financial investments

Note 9

in CHF million	2018	2017
Deposits	102	69
Debt and equity securities	27	25
Foreign exchange contracts	3	7
Current financial investments and derivatives	133	101
Investments in associates and joint arrangements	9	17
Other investments ¹	19	1
Non-current financial investments	29	18
Total	162	119

¹ Non-current other investments mainly include a 14.54 % investment in an unquoted equity instrument that is carried at fair value through other comprehensive income.

Loans and receivables

Note 10

in CHF million	2018	2017, restated
Current		
Trade receivables	280	401
Trade notes receivable	25	46
Current contract assets	31	40
Other receivables ¹	92	113
Non-current		
Loans and other non-current financial receivables	24	23
Non-current contract assets	1	1
Total	453	625

¹ Other receivables include receivables from Swiss and foreign tax authorities (VAT).

Inventories

Note 11

in CHF million	2018			2017, restated		
	Gross value	Value adjustment	Net value	Gross value	Value adjustment	Net value
Raw material and components	122	-8	114	166	-14	152
Work in progress	131	-5	126	178	-9	169
Finished goods and trade merchandise	127	-23	104	171	-32	140
Total	380	-36	343	515	-55	461

Amounts charged to the income statement for write-downs of inventories in the reporting year were CHF 3 million (previous year, restated: CHF 2 million). In 2018, Inventories of CHF 1 081 million (previous year, restated: CHF 779 million) were recognized as an expense during the period and included in cost of sales.

Property, plant and equipment

Note 12

in CHF million	Plant, equipment and furniture	Production and administration buildings	Developed land	Facilities under construction	2018 Total
Cost					
Balance at January 1, 2018	1 716	426	66	59	2 267
Conversion differences	-51	-10	-1	-2	-64
Changes in the scope of consolidated companies	9	-	-	-	9
Additions	103	38	-	92	233
Disposals	-11	-1	-	-	-12
Reclassifications to assets held for sale	-585	-90	-29	-20	-724
Other movements	-1	2	-	-1	-
Transfers	46	19	1	-67	-1
Balance at December 31, 2018	1 226	384	37	62	1 709
Accumulated depreciation and impairment losses					
Balance at January 1, 2018	-1 199	-222	-1	-	-1 422
Conversion differences	36	5	-	-	41
Depreciation	-106	-14	-	-	-120
Impairment losses	-1	-	-	-	-1
Disposals	7	1	-	-	8
Reclassifications to assets held for sale	420	29	1	-	450
Transfers	1	-1	-	-	-
Balance at December 31, 2018	-840	-202	-	-	-1 042
Net Group values at January 1, 2018	517	204	65	59	845
Net Group values at December 31, 2018	386	182	37	62	667
Of which assets held under finance leases	2	38	-	-	40

Open purchase commitments for property, plant and equipment at the end of 2018 amounted to CHF 18 million (previous year: CHF 23 million), thereof CHF 6 million relate to discontinued operations. Open purchase commitments for financial leasing at the end of 2018 amounted to CHF 9 million (previous year: CHF 84 million).

Property, plant and equipment

in CHF million	Plant, equipment and furniture	Production and administration buildings	Developed land	Facilities under construction	2017 Total
Cost					
Balance at January 1, 2017	1 489	394	58	23	1 964
Conversion differences	82	18	3	-	103
Changes in the scope of consolidated companies	4	-	-	-	4
Additions	129	10	3	62	204
Disposals	-7	-	-	-	-7
Transfers	19	4	2	-26	-1
Balance at December 31, 2017	1 716	426	66	59	2 267
Accumulated depreciation and impairment losses					
Balance at January 1, 2017	-1 021	-197	-1	-	-1 219
Conversion differences	-62	-9	-	-	-71
Depreciation	-116	-14	-	-	-130
Impairment losses	-3	-2	-	-	-5
Disposals	3	-	-	-	3
Balance at December 31, 2017	-1 199	-222	-1	-	-1 422
Net Group values at January 1, 2017	468	197	57	23	745
Net Group values at December 31, 2017	517	204	65	59	845
Of which assets held under finance leases	6	3	7	-	16

Goodwill and intangible assets

Note 13

in CHF million	Goodwill	Brands	Development costs	Other intangible assets ¹	2018 Total
Cost					
Balance at January 1, 2018	1 235	225	144	623	2 227
Conversion differences	-15	-5	-2	-10	-32
Changes in the scope of consolidated companies	14	-	-	13	27
Additions	-	-	30	15	45
Disposals	-	-	-	-	-
Reclassifications to assets held for sale	-496	-70	-9	-15	-591
Transfers	-	-	-	1	1
Balance at December 31, 2018	738	150	163	627	1 677
Accumulated amortization and impairment losses					
Balance at January 1, 2018	-698	-	-69	-231	-998
Conversion differences	6	-	1	4	10
Amortization	-	-	-14	-52	-65
Disposals	-	-	-	-	-
Reclassifications to assets held for sale	496	-	8	12	516
Balance at December 31, 2018	-196	-	-74	-268	-537
Net Group values at January 1, 2018	537	225	75	392	1 229
Net Group values at December 31, 2018	542	150	89	359	1 139

¹ Contains mainly acquired technologies and customer relationships.

The capitalized development costs pertain to the Segments as follows:

Capitalized development costs for the period

in CHF million	2018	2017
Surface Solutions Segment	23	17
Manmade Fibers Segment	7	7
Drive Systems Segment	-	1
Total	30	25

Goodwill and intangible assets

Note 13 (cont.)

Goodwill and brands are attributed to the Segments and Business Units as follows:

Goodwill and brands	Goodwill		Brands	
	2018	2017	2018	2017
in CHF million				
Surface Solutions Segment	423	421	22	22
- Balzers Industrial Solutions	256	254	2	2
- Metco Aero & Energy	92	93	19	20
- Automotive Solutions	57	56	-	-
- Additive Manufacturing	18	18	-	-
Manmade Fibers Segment	119	116	128	133
Drive Systems Segment	-	-	-	70
Total	542	537	150	225

Goodwill and other intangible assets with indefinite useful life are allocated to those cash-generating units (CGUs) that are expected to benefit from the relevant business combination. The Manmade Fibers and Drive Systems Segment correspond to CGUs and are the lowest level at which goodwill is monitored by management. The Chief Operation Decision Maker (CODM) receives information for the businesses Balzers Industrial Solutions, Metco Aero & Energy, Automotive Solutions and Additive Manufacturing on Business Unit level.

Goodwill and intangible assets with indefinite useful life are tested annually for possible impairment, using discounted cash flow analysis. Asset values used in the impairment testing are based on value in use and on the latest forecasts approved by management. The fair value measurement was categorized as a Level 3 based on the inputs in the valuation technique used. The forecast period used for future cash flows covers the years 2019 to 2023. The discount rates used are based on the weighted average cost of capital (WACC), derived from peer groups adjusted to specific risks of the businesses concerned and the countries in which they operate. The capital costs were determined using the capital asset pricing model (CAPM).

The annual goodwill and brand impairment test carried out at Segment level for Manmade Fibers and on Business Unit level for Surface Solutions, supported the carrying amounts and therefore, no need for impairment was identified.

Detailed results of the impairment testing are presented below for goodwill and brands allocated to the Surface Solutions Business Units, the Manmade Fibers Segment and to the Drive Systems Segment.

The following growth and pre-tax discount rates were used:

Growth and discount rates per Segment and Business Unit	Growth rates ¹		Discount rates	
	2018	2017	2018	2017
Surface Solutions Segment				
- Balzers Industrial Solutions	2.0%	2.0%	10.2%	9.6%
- Metco Aero & Energy	2.0%	2.0%	10.0%	9.1%
- Automotive Solutions	2.0%	2.0%	10.2%	9.4%
- Additive Manufacturing	3.0%		11.9%	
Manmade Fibers Segment	2.0%	2.0%	11.7%	10.1%
Drive Systems Segment		2.0%		12.5%

¹ For periods following the five-year plan period 2019 to 2023 (previous year: 2018 to 2022).

For the Surface Solutions Business Units as well as the Manmade Fibers Segment, neither a reduction of the growth rate of the terminal value to 0.5% (previous year: 0.5%), nor an increase in the discount rate by 1.5% (previous year: 1.5%) would give rise to an impairment of goodwill.

Goodwill and intangible assets

Note 13 (cont.)

Previous year

in CHF million	Goodwill	Brands	Development costs	Other intangible assets ¹	2017 Total
Cost					
Balance at January 1, 2017	1 168	212	116	566	2 062
Conversion differences	44	13	4	19	80
Changes in the scope of consolidated companies	23	–	–	31	54
Additions	–	–	25	10	35
Disposals	–	–	–1	–3	–4
Balance at December 31, 2017	1 235	225	144	623	2 227
Accumulated amortization and impairment losses					
Balance at January 1, 2017	–673	–	–54	–181	–908
Conversion differences	–25	–	–2	–6	–33
Amortization	–	–	–13	–48	–61
Disposals	–	–	–	4	4
Balance at December 31, 2017	–698	–	–69	–231	–998
Net Group values at January 1, 2017	495	212	62	385	1 154
Net Group values at December 31, 2017	537	225	75	392	1 229

¹ Contains mainly acquired technologies and customer relationships.

Post-employment benefits

Note 14

in CHF million	2018			2017		
	Total	due within 1 year	due beyond 1 year	Total	due within 1 year	due beyond 1 year
Net defined benefit liability ¹	381	15	366	403	16	387
Other employee benefit liabilities	14	1	13	13	1	12
Subtotal	395	16	379	416	17	399
Net defined benefit liability classified as held for sale	-55	-1	-54	-	-	-
Other employee benefit liabilities classified as held for sale	-1	-	-1	-	-	-
Total on the balance sheet	339	15	324	416	17	399
Post-employment benefit assets	5	-	5	20	-	20
Post-employment benefit liabilities	344	15	329	436	17	419

¹ In 2018, net defined benefit liability related to funded plans was CHF 165 million, including CHF 36 million classified as held for sale, and CHF 216 million related to unfunded plans, including CHF 19 million classified as held for sale (previous year: funded CHF 155 million and unfunded CHF 248 million)

Post-employment benefit expense

in CHF million	2018			2017		
	Total	Defined benefit	Defined contribution	Total	Defined benefit	Defined contribution
Pension cost (operating) ¹	26	11	15	22	9	13
Pension cost (financial) ²	7	7	-	8	8	-
Total post-employment benefit plan cost in the income statement	33	18	15	30	17	13

¹ Pension income (operating) of CHF -3 million was included in result of discontinued operations (previous year, restated: pension costs CHF 2 million).

² Pension cost (financial) of CHF 1 million was included in result of discontinued operations (previous year, restated: CHF 3 million).

Post-employment benefits

Note 14 (cont.)

Defined benefit plans

The Group's material defined benefit pension plans are located in Germany, the USA, and Switzerland and account for 93 % of the Group's net defined benefit liability (previous year: 93 %). Usually, the plans are established as trusts independent of the Group and are funded by payments from Group companies and by employees. The cash funding of these plans is designed to ensure that present and future contributions should be sufficient to meet future liabilities. The funding requirements are based on the pension fund's actuarial measurement framework set out in the funding policies of the plan. Most of the major plans in Germany are unfunded and, as the result the Group pays pensions to retired employees directly from its own financial resources.

Pension plans in Germany

12 unfunded and 6 funded defined benefit plans existed in 2018 (previous year: 12 and 6 respectively). These pension arrangements are governed by the German Occupational Pensions Act (BetrAVG). The employer is required by German law to increase pension payments every three years according to price inflation, as measured by the Consumer Price Index ("Verbraucherpreisindex - VPI") or according to comparable pay grades. In case of unfunded pension plans, the Group pays pensions to retired employees directly from its own financial resources. Funded pension plans are administered through a Contractual Trust Agreement (CTA). In a CTA arrangement, the assets are outsourced to an independent entity (e.g. a trust), which has the sole purpose of financing, paying out and ensuring benefits. The transferred assets are completely segregated from the employer's assets to protect these assets against the risk of the employer's insolvency. The employer is free to determine the scope and the kinds of assets that are to be transferred to the Trust and used for funding the pension liabilities. No minimum funding requirements or regular funding obligations apply to CTAs. Based on a special trust agreement between the employer and the Trust, the Trust acquires legal title in the transferred assets while the economic ownership rests with the employer. By creating the CTA, the employer creates additional insolvency protection for the beneficiaries.

Pension plans in the USA

2 funded and 2 unfunded defined benefit plans existed in 2018 (previous year: 2 and 2 respectively). The pension plan for members of Fairfield Manufacturing Company hired prior to March 2004 is non-contributory for the employees. The plan is a final-average-pay-design defined benefit plan. A member's benefit is based on a percentage of their final average pay multiplied by service and payable as a monthly life annuity. A lump sum payment is generally not available. The plan does not provide for automatic pension increases. This plan has been closed to new members since 2004 and benefit accruals under the plan have ceased in January 2018. The Oerlikon USA Holding, Inc. Pension Plan is non-contributory for the employees. The plan uses a final-average-pay-based formula, with benefits based on members' years of service and final average pay earned while in the employ of a participating company. This plan has been closed to new members since 2006 and benefit accruals under the plan ceased in January 2010. Participants receive their benefits in the form of monthly annuities, which are actuarially reduced for early retirement and/or election of a form of payment providing for continued payments after the participant's death to a surviving beneficiary. Some participants have the option of receiving their benefits in a single lump-sum payment in lieu of an annuity. The plan does not provide for automatic pension increases. The companies' contributions to the defined benefit plan are made based on US pension funding regulations, in the form of cash. Employees joining Fairfield Manufacturing Company and Oerlikon USA Holding after specified dates participate in a defined contribution pension plan.

Pension plans in Switzerland

7 funded defined benefit plans existed in 2018 (previous year: 7 plans). These plans are governed by the Swiss Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG), which stipulates that pension plans are to be managed by independent, legally autonomous units. The pension plan assets are held within a separate foundation and cannot revert to the employer. The Board of Trustees, the most senior governing body of the collective foundation, is responsible for investment strategy and policy. This Board is composed of equal numbers of employees and employer representatives. The plans provide old-age, disability and death-in-service (survivors') benefits to plan participants, their spouses and children, as defined in pension plan rules compliant with the BVG, which specifies the minimum benefits to be provided. Pension funds are financed according to a level premium system, which means that every insured person directly finances his/her own retirement benefits and saves up for his/her retirement. The insured and the employer usually pay equal contributions to the pension fund in case of retirement benefits. The employer must contribute an amount that equals at least the contributions of all employees together. Disability and survivors' benefits are funded via risk contributions; the corresponding benefits are defined based on the current salary.

The following risks arise from the 7 funded defined benefit plans (5 autonomous and 2 partly-autonomous):

The autonomous pension institutions bear the risks from the savings process, the asset management and the demographic risks (longevity, death, disability). The respective pension institution may change the funding system (contributions and future benefits) at any time. In case of a deficit according to BVG and if there are no other measures, the pension institution may require contributions for financial recovery by the employer.

The partly-autonomous pension institutions insure the demographic risks with a life insurance company, but bear the risks from the savings process and asset management. The respective pension institution may change the funding system (contributions and future benefits) at any time. In case of a deficit according to BVG and if there are no other measures, the pension institution may require contributions for financial recovery from the employer. With respect to the insured demographic risks, there are further risks, namely that the insurance coverage is only of a temporary nature (cancellation by the life insurance company) and that the inherent risks of the plan result in variable insurance premiums over time.

Post-employment benefits

Note 14 (cont.)

Movement in net defined benefit liability

The following table shows a reconciliation from the opening balances to the closing balances for net defined benefit liability and its components:

in CHF million	Defined benefit obligation		Fair value of plan assets		Adjustment to asset ceiling		Net defined benefit liability	
	2018	2017	2018	2017	2018	2017	2018	2017
Balance at January 1	1 081	1 085	-689	-656	11	7	403	436
Included in the income statement								
Current service cost (employer)	22	19	-	-	-	-	22	19
Past service cost ¹	-11	-8	-	-	-	-	-11	-8
Gains on settlement	-	-9	-	7	-	-	-	-2
Interest expense on defined benefit obligation	17	18	-	-	-	-	17	18
Interest income on plan assets	-	-	-10	-10	-	-	-10	-10
Administration cost (excl. cost for managing plan assets) ²	-	-	-	-	-	-	-	-
Total in the income statement³	28	20	-10	-3	-	-	18	17
Included in other comprehensive income								
Remeasurement gain (-)/ loss (+) arising from:	-30	-3	29	-40	11	4	10	-39
- Actuarial gain (-)/ loss (+) arising from:								
- demographic assumptions	2	-12	-	-	-	-	2	-12
- financial assumptions	-38	18	-	-	-	-	-38	18
- experience adjustments	6	-9	-	-	-	-	6	-9
- Return on plan assets excluding interest income	-	-	29	-40	-	-	29	-40
- Change in effect of asset ceiling excluding interest expense/income	-	-	-	-	11	4	11	4
Effect of movements in exchange rates	-13	24	1	-	-	-	-12	24
Total in other comprehensive income	-43	21	30	-40	11	4	-2	-15
Other								
Employer contributions ⁴	-	-	-21	-18	-	-	-21	-18
Employee contributions ⁵	9	9	-8	-7	-	-	1	2
Benefits paid/deposited	-57	-54	39	35	-	-	-18	-19
Total in other	-48	-45	10	10	-	-	-38	-35
Balance at December 31	1 018	1 081	-659	-689	22	11	381	403

of which:

in CHF million	2018	2017	2018	2017	2018	2017	2018	2017
- Germany	370	394	-61	-65	-	-	309	329
- USA	213	245	-166	-186	-	-	47	59
- Switzerland	401	408	-425	-431	22	11	-2	-12

¹ 2018: Change in Postretirement Medical Plan from Fairfield Manufacturing Company Inc. 2017: Plan curtailment in the USA and reduction of conversion rate for Swiss plans.

² Administration costs are less than CHF 1 million (previous year: less than CHF 1 million).

³ Pension income of CHF 10 million are included in result of discontinued operations (previous year, restated: pension income of CHF 4 million).

⁴ Employer contributions to defined benefit plans for 2019 are expected to be approximately CHF 21 million (thereof CHF 1 million related to discontinued operations).

⁵ Including employee contributions in unfunded plans in the USA.

Post-employment benefits

Note 14 (cont.)

The plan assets consist of the following:

in CHF million	2018				2017			
	Total	Quoted	Unquoted	%	Total	Quoted	Unquoted	%
Equity instruments	128	128	-	19 %	141	139	2	20 %
Debt instruments, of which in:	143	143	-	22 %	145	145	-	21 %
- Government bonds	43	43	-		44	44	-	
- Corporate bonds - investment grade	100	100	-		101	101	-	
Real estate, of which in:	127	66	61	19 %	121	61	60	18 %
- Properties ¹	61	-	61		60	-	60	
- Real estate funds	66	66	-		61	61	-	
Cash and cash equivalents	21	21	-	3 %	18	18	-	3 %
Investment funds	184	37	147	28 %	207	42	165	30 %
Other	56	45	11	8 %	57	43	14	8 %
Total plan assets	659	440	219	100 %	689	448	241	100 %

¹ Real estate in Germany with a fair value of CHF 9 million (previous year: CHF 9 million) is rented by a Group company, with an annual rent of CHF 1 million (previous year: CHF 1 million).

Plan assets

In the Group's financial statements, the difference between the actual return on plan assets and interest income is as remeasurement recorded directly to other comprehensive income. During 2018, the actual return on plan assets was a loss of CHF 19 million (previous year: gain of CHF 50 million). The recognition of a net defined benefit asset is limited to the present value of any economic benefits available out of refunds from the plans or reductions in future contributions to the plans.

Post-employment benefits

Note 14 (cont.)

Actuarial assumptions

The following are the principal actuarial assumptions at the reporting date for significant defined benefit plans in Germany, the USA and Switzerland (expressed as weighted averages):

Assumptions used in actuarial calculations in percentage	2018			2017		
	Germany	USA	Switzerland	Germany	USA	Switzerland
Discount rate	1.5	4.2	0.9	1.5	3.6	0.5
Future salary increases	0.1	2.3	1.2	0.1	2.4	1.0
Future pension increases	1.6	–	–	1.6	–	–

The discount rate is determined by reference to market yields at the end of the reporting period on AA- and AAA-rated corporate bonds. The currency and term of the corporate bonds are consistent with the currency and estimated term of the obligations.

Longevities

Assumptions regarding future mortality are based on published statistics and mortality tables. The current longevities underlying the values of the defined benefit obligation at the reporting date are provided below:

Longevities in years	2018			2017		
	Germany	USA	Switzerland	Germany	USA	Switzerland
Retiring at the end of the reporting period:						
– Males	21.4	19.7	22.8	20.6	19.9	22.4
– Females	25.1	22.1	25.5	24.7	22.2	25.4
Retiring 20 years after the end of the reporting period:						
– Males	24.3	21.4	23.3	23.3	21.5	22.9
– Females	27.3	23.7	26.4	27.3	23.8	26.3

Weighted average duration of the defined benefit obligation	2018			2017		
	Germany	USA	Switzerland	Germany	USA	Switzerland
Number of years	10.3	11.6	13.7	10.7	12.4	14.5

The Group's major pension plans give members lump-sum or annuity benefit payment options. The Group values its pension liabilities on the assumption that the choices made by members who will retire in the future will be consistent with choices made by members who have retired recently.

Sensitivity analysis

Reasonably possible changes at the reporting date to one of the relevant actuarial assumptions, holding other assumptions constant, would have affected the defined benefit obligation by the amounts shown below.

Sensitivity analysis	Defined benefit obligation in 2018					
	Increase			Decrease		
	Germany	USA	Switzerland	Germany	USA	Switzerland
Discount rate (0.5% movement)	–18	–11	–25	20	13	30
Future salary (0.5% movement)	–	–	3	–	–	–3
Future pension (0.5% movement)	15	–	21	–12	–	–19
Future mortality (1 year movement)	–22	–7	–13	18	6	12

Sensitivity analysis	Defined benefit obligation in 2017					
	Increase			Decrease		
	Germany	USA	Switzerland	Germany	USA	Switzerland
Discount rate (0.5% movement)	–20	–14	–28	21	15	32
Future salary (0.5% movement)	–	–	3	–	–	–3
Future pension (0.5% movement)	18	–	23	–13	–	–21
Future mortality (1 year movement)	–23	–8	–13	18	8	13

Current financial liabilities

Note 15

in CHF million	2018	2017, restated
Finance lease liabilities	1	2
Bond ¹	300	–
Current loans and borrowings	2	1
Derivatives used for hedging	7	2
Total current financial liabilities and derivatives	309	5
Trade payables	277	366
Other payables	63	57
Total current financial liabilities	650	428

¹ Refer to Note 18 "Non-current loans and borrowings" for terms and conditions.

Accrued liabilities

Note 16

in CHF million	2018	2017
Accrued personnel expenses	95	115
Accrued material expenses	40	29
Other accrued liabilities	66	59
Total accrued liabilities	201	203

Provisions

Note 17

in CHF million	Product warranties	Acquiree's contingent liabilities ¹	Restructuring ²	Other provisions ³	2018 Total
Balance at January 1, 2018	37	60	71	34	202
Conversion differences	–1	–	–2	–	–3
Additions ⁴	29	1	1	19	51
Amounts used	–13	–3	–18	–5	–39
Amounts reversed	–13	–10	–1	–6	–31
Reclassifications to liabilities held for sale	–14	–	–41	–22	–77
Balance at December 31, 2018	25	48	11	19	103
of which:					
Due within 1 year	22	–	4	12	38
Due beyond 1 year	3	48	7	7	65

¹ Acquiree's contingent liabilities pertain to the Surface Solutions Segment. Contingent liabilities have been recognized primarily due to environmental liabilities and potential tax risks. Any potential cash outflow is estimated to occur during the next 10-15 years. The selling shareholder (Sulzer AG) has contractually agreed to indemnify Oerlikon for an amount up to CHF 20 million related to certain of these environmental liabilities.

² The restructuring provision pertains to Manmade Fibers Segment (CHF 7 million) and Surface Solutions Segment (CHF 4 million). The restructuring provision relates mostly to personnel expenses.

³ Other provisions cover various risks which occur in the normal course of business. They consist mainly of provisions for pending litigation, technical risks and onerous contracts.

⁴ Includes unwinding of discount for non-current provisions.

Non-current loans and borrowings

Note 18

in CHF million	2018	2017
Bonds	150	450
Finance lease liabilities	39	8
Other loans and borrowings	5	5
Total non-current loans and borrowings	194	463

The terms and conditions of outstanding loans are as follows:

					2018	
in CHF million	Currency	Nominal interest rate	Year of maturity	Face value	Carrying amount	
Syndicated loan/Revolving Credit Facility	CHF	Libor + 0.60 %	2022	–	–	
Bond ¹	CHF	1.25 %	2019	300	300	
Bond ¹	CHF	2.625 %	2024	150	150	
Finance lease liabilities ²	var.	var.	2019–2038	40	40	
Various current and non-current liabilities ³	var.	var.	var.	7	7	
Total loans and borrowings					497	
– Current loans and borrowings					303	
– Non-current loans and borrowings					194	

					2017	
in CHF million	Currency	Nominal interest rate	Year of maturity	Face value	Carrying amount	
Syndicated loan/Revolving Credit Facility	CHF	Libor + 0.60 %	2022	–	–	
Bond ¹	CHF	1.25 %	2019	300	300	
Bond ¹	CHF	2.625 %	2024	150	150	
Finance lease liabilities ²	var.	var.	2018–2034	10	10	
Various current and non-current liabilities ³	var.	var.	var.	6	6	
Total loans and borrowings					466	
– Current loans and borrowings					3	
– Non-current loans and borrowings					463	

¹ Less than CHF 1 million (previous year: CHF 1 million) of directly attributable transaction costs related to the financing of the bonds were deducted and are being expensed over the term of the bonds.

² The finance leases are secured by contract provisions normal for such leases.

³ Various currencies including: CHF, EUR, USD.

Syndicated loan facility

In 2016, Oerlikon signed an agreement for a new unsecured syndicated credit facility, comprising of a revolving credit facility and an ancillary credit facility, amounting to CHF 600 million. The initial maturity was in 2021, and in 2017, Oerlikon successfully extended the facility by one year to 2022. As of December 31, 2018, the drawn revolving credit facility balance was zero, and out of CHF 235 million allocated to the ancillary credit facility, the amount of CHF 142 million was used for issuing guarantees.

As per December 31, 2018, the interest rate of the loan under the syndicated credit facility is defined as Libor plus a margin of 0.60 % per year, subject to a margin grid based on the ratio of Net Debt to EBITDA (within a range of 0.60 % and 1.40 %).

As of December 31, 2018, the syndicated credit facility contains the following financial covenants, which are tested quarterly:

- Total Equity
- Total Borrowings/EBITDA

In 2018, the Group was in compliance with all covenants.

Bonds

On June 17, 2014, the Oerlikon Group issued a 5 year CHF 300 million straight bond with a nominal interest of 1.25 % (effective interest: 1.33 %) and a 10 year CHF 150 million straight bond with a nominal interest of 2.625 % (effective interest: 2.625 %).

Financial instruments

Note 19

The carrying amounts and fair values of financial assets and liabilities as of December 31, 2018, including their levels in the fair value hierarchy, are as follows:

in CHF million	Carrying amount			Fair value				
	Fair value – through other comprehensive income	Fair value – through profit & loss	Amortized Costs ¹	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Foreign exchange contracts	1	2	–	3	–	3	–	3
Debt and equity securities	–	27	–	27	27	–	–	27
Other investments	19	–	–	19	–	–	19	19
Cash and cash equivalents	–	–	764	764	–	–	–	–
Deposits	–	–	102	102	–	–	–	–
Trade and trade notes receivable	–	–	305	305	–	–	–	–
Current contract assets	–	–	31	31	–	–	–	–
Loans and other non-current financial receivables	–	–	24	24	–	–	–	–
Total	20	29	1 226	1 275				
Financial liabilities								
Foreign exchange contracts	5	2	–	7	–	7	–	7
Other liabilities	–	37	3	40	–	–	37	37
Bonds	–	–	450	450	468	–	–	468
Finance lease liabilities	–	–	40	40	–	–	–	–
Trade payables	–	–	277	277	–	–	–	–
Accrued liabilities	–	–	105	105	–	–	–	–
Other loans and borrowings	–	–	6	6	–	–	–	–
Total	5	39	881	925				

¹ With the exception of the bonds, the Group has not disclosed the fair values for financial assets and liabilities measured at amortized costs because their carrying amounts are a reasonable approximation of fair values.

Financial instruments

Note 19 (cont.)

The carrying amounts and fair values of financial assets and liabilities as of December 31, 2017, restated, including their levels in the fair value hierarchy, are as follows²:

in CHF million	Carrying amount			Fair value				
	Fair value – through other comprehensive income	Fair value – through profit & loss	Amortized Costs ¹	Total	Level 1	Level 2	Level 3	Total
Financial assets								
Foreign exchange contracts	7	–	–	7	–	7	–	7
Debt and equity securities	–	25	–	25	25	–	–	25
Cash and cash equivalents	–	–	871	871	–	–	–	871
Deposits	–	–	69	69	–	–	–	69
Trade and trade notes receivable	–	–	447	447	–	–	–	447
Current contract assets	–	–	40	40	–	–	–	40
Loans and other non-current financial receivables	–	–	23	23	–	–	–	23
Total	7	25	1 450	1 482				
Financial liabilities								
Foreign exchange contracts	1	1	–	2	–	2	–	2
Other liabilities	–	34	3	37	–	–	34	34
Bonds	–	–	450	450	476	–	–	476
Finance lease liabilities	–	–	10	10	–	–	–	10
Trade payables	–	–	366	366	–	–	–	366
Accrued liabilities	–	–	88	88	–	–	–	88
Other loans and borrowings	–	–	6	6	–	–	–	6
Total	1	35	923	959				

¹ With the exception of the bonds, the Group has not disclosed the fair values for financial assets and liabilities measured at amortized costs because their carrying amounts are a reasonable approximation of fair values.

² For comparability reasons the categories for financial assets and financial liabilities were adjusted to align with the terminology of IFRS 9. The following changes were applied; "Fair value – held for trading" changed into "Fair value – through profit & loss" / "Fair value – hedging instruments" changed into "Fair value – through other comprehensive income" / "Loans, receivables" & "Other financial liabilities" changed into "Amortized costs".

Measurement of fair values

The different levels of fair values have been defined as follows:

- **Level 1:** quoted prices (unadjusted) in active markets for identical assets or liabilities.
- **Level 2:** pricing inputs other than quoted prices included within level 1 that are observable for the asset or liability, either directly (as prices) or indirectly (derived from prices).
- **Level 3:** valuation inputs for the asset or liability that are not based on observable market data (unobservable inputs).

Level 1 fair values

The fair value of financial instruments traded in active markets is based on quoted market prices at the balance sheet date. An active market is a market in which transactions for the asset or liability take place with sufficient frequency and volume providing information on an ongoing basis. Instruments included in level 1 comprise investments in various debt and equity instruments via investment funds.

Level 2 fair values

The following table shows the valuation technique used in measuring level 2 fair values:

Type of financial instruments	Valuation technique
Foreign exchange contracts	The fair values of foreign exchange hedging contracts are based on broker quotes. Similar contracts traded in an active market and the quotes reflect the actual transactions in similar instruments.

Financial instruments

Note 19 (cont.)

Level 3 fair values

The following table shows the valuation technique used in measuring level 3 fair values:

Type of financial instruments	Valuation technique
Other investments	Other investments mainly include a 14.54% investment in an unquoted equity instrument that is carried at fair value through other comprehensive income. Such investments are valued initially at fair value through the established purchase price between a willing buyer and seller and subsequently adjusted based on values derived from a discounted cash flow analysis.
Other liabilities	The valuation of the contingent considerations is based on the current estimate of the fulfillment of the conditions on which the payment of the earnout depends. The fair value is based on various unobservable inputs. A change in these inputs may result in a significantly higher or lower fair value.

Transfers between level 1 and 2

There were no transfers between level 1 and 2 during the year.

Financial risk management

The Group has exposure to the following risks arising from financial instruments:

- credit risk
- liquidity risk
- market risk

Credit risk

Credit risk is the risk of financial loss to the Group, if a customer or counterparty to a financial instrument fails to meet its contractual obligations. Credit risk arises principally from the Group's customer receivables, investment securities and cash placed with banks.

The credit or default risk associated with operating receivables is monitored locally by the individual Group companies. These companies follow a credit policy defined by each operating unit, under which each new customer is analyzed individually for creditworthiness before payment and delivery terms and conditions are offered. Credit ratings are reviewed regularly, and limits are set and monitored on an ongoing basis.

Trade receivables are valued at the original invoiced amount less any necessary value adjustments for default risks. These risks are insured with third parties only in exceptional cases. Value adjustments are set at varying levels corresponding to risks recognized in the different Business Units.

As a fundamental principle, the Group places funds only with investment grade rated domestic and foreign banking institutions, and Group Treasury periodically assesses the relevant ratings and credit default spreads of these banking institutions.

The Oerlikon Group's maximum credit risk from financial instruments is reflected in the book values of the individual financial assets as per year-end. There are no commitments or obligations which might lead to an exposure exceeding these book values. The maximum credit risk is therefore:

in CHF million	2018	2017, restated
Cash and cash equivalents	764	871
Deposits	102	69
Debt and equity securities	27	25
Derivatives used for hedging	3	7
Trade and trade notes receivable	305	447
Current contract assets	31	40
Loans and other non-current financial receivables	24	23
Total	1 256	1 482

At December 31, trade and trade notes receivables are distributed geographically (by location of the Group company) as follows:

in CHF million	2018	2017
Asia	110	176
Europe	137	201
North America	50	62
Other	8	8
Total	305	447

No concentrations of risk to the Group are expected from the outstanding receivables.

Financial instruments

Note 19 (cont.)

At December 31, the aging of trade and trade notes receivable was as follows:

in CHF million	2018		2017	
	Gross amount	Value adjustment	Gross amount	Value adjustment
Current (not due)	222	-	378	-
Total past due	91	-8	79	-10
0-30 days	49	-1	48	-1
31-60 days	15	-	12	-
61-90 days	10	-	6	-1
91-120 days	4	-1	2	-
Over 120 days	13	-6	11	-8
Total	313	-8	457	-10

The allowance for doubtful debts is based on the Expected Credit Loss (ECL) method, which consists in applying a current and forward-looking model to identify factors that may affect the ability of customers to settle their obligations as agreed. The Group applies IFRS 9 simplified approach and calculates expected credit losses using a provision matrix where trade receivables are grouped based on different customer attributes. If substantial expected payment delays occurs receivables are assessed individually for further impairment. Refer to the section "adoption of new and revised accounting standards" in the significant accounting principles.

Reconciliation of changes in allowance accounts for credit losses:

in CHF million	2018	2017
Balance at January 1	-10	-13
Reclassifications to assets held for sale	2	-
Additional impairment losses charged to income	-3	-2
Reversal of impairment losses	2	5
Write-off	1	-
Balance at December 31	-8	-10

Financial instruments

Note 19 (cont.)

Liquidity risk

Liquidity risk is the risk that the Oerlikon Group may be unable to discharge its financial liabilities in a timely manner or at an acceptable cost. Oerlikon supervises and manages the Group's liquidity centrally, in order to ensure that outstanding financial liabilities can at all times be met within their maturity period and at an acceptable financing cost. Group Treasury prepares and provides the relevant decision support and arranges for the availability of the relevant funds once approval is given.

Oerlikon's liquidity is monitored using short-, medium- and long-term rolling forecasts, about which senior management is kept informed. On the basis of these plans, Oerlikon mobilizes the necessary liquid funds and takes any further steps necessary in a timely manner.

The remaining contractual maturities of financial liabilities as of December 31 are as follows:

2018						
in CHF million	Carrying amount	Contractual cash flow	within 1 year	1 to 5 years	more than 5 years	of which secured
Trade payables	277	277	277	–	–	–
Loans and borrowings ¹	456	485	309	23	153	–
Finance lease liabilities	40	75	3	13	59	–
Accrued liabilities	105	105	105	–	–	–
Other liabilities	40	40	21	14	5	–
Non-derivative financial liabilities	918	981	714	50	217	–
Foreign exchange contracts used for hedging	–	1 179	1 160	19	–	–
– thereof: for hedging fx-outflows (notional value)	–	715	715	–	–	–
– thereof: for hedging fx-inflows (notional value)	–	464	445	19	–	–
Derivative financial instruments²	–	1 179	1 160	19	–	–
Total	918	2 160	1 874	69	217	–

2017, restated

in CHF million	Carrying amount	Contractual cash flow	within 1 year	1 to 5 years	more than 5 years	of which secured
Trade payables	366	366	366	–	–	–
Loans and borrowings ¹	456	498	11	329	158	–
Finance lease liabilities	10	10	2	4	4	–
Accrued liabilities	88	88	88	–	–	–
Other liabilities	37	39	–	36	3	–
Non-derivative financial liabilities	957	1 001	467	369	165	–
Foreign exchange contracts used for hedging	–	754	741	13	–	–
– thereof: for hedging fx-outflows (notional value)	–	262	261	1	–	–
– thereof: for hedging fx-inflows (notional value)	–	492	480	12	–	–
Derivative financial instruments²	–	754	741	13	–	–
Total	957	1 755	1 208	382	165	–

¹ Loans and borrowings mainly include two Swiss franc bonds of CHF 450 million, maturing in June 2019 and June 2024 with capitalized transaction costs of less than CHF 1 million (previous year: CHF 1 million). The contractual cash flows include mainly future interest payments of the Swiss franc bonds until maturity and commitment fees of the syndicated credit facility.

² Contractual cash flows relate to underlying transactions that cover the contractual cash flows almost completely.

Market risk

Market risk is the risk that the fair value or the future cash flows of a financial instrument may change as a result of fluctuations in market prices. The Oerlikon Group is exposed in particular to fluctuations in foreign exchange and interest rates. The Group also has a minor risk from exposure to fluctuations in raw material prices.

Foreign exchange risk
Foreign exchange transaction risk

Due to its most significant markets, the Group is primarily exposed to exchange risks versus the USD and EUR. If costs and revenues of Group companies are incurred or earned in differing or in non-functional currencies, the underlying business transactions are hedged on a centrally coordinated basis by means of commonly used financial instruments. Group companies make regular plans for receipt or payment of cash in foreign currencies and advise these to Group Treasury, which hedges the related exchange risks using external contracts with investment grade rated banks.

The Group's hedging strategy for exchange risks distinguishes between the routine business of supplying components or spare parts and the Group's project activities. For the routine business, cash flows in foreign currencies are hedged for a whole year in advance, based on the annual budget. The hedging quota, i.e. the percentage of the base volume to be hedged, is set forth in the related guidelines. Periodically, a check is performed as to whether the latest forecast of business volumes calls for an increase or a reduction in the hedging volume. For projects, the exchange risks are hedged when the contract is entered into. For special transactions that do not fall into either category – routine or project – the hedging strategy can be determined for individual cases.

Foreign exchange translation risk

Translation exposure arises from consolidation of foreign currency denominated financial statements of the Group's subsidiaries. The Group's consolidated financial statements are reported in Swiss francs. The translation risk arising from foreign subsidiary balance sheets, which affects the consolidated Group equity is not hedged.

Long-term Foreign exchange economic risk

The Group policy is not to hedge long-term foreign exchange risk.

The following rates were used to convert the most important foreign currencies in the financial statements:

	Average rates		Change	Year-end rates		Change
	2018	2017	17/18	2018	2017	17/18
1 USD	0.978	0.984	-0.7%	0.985	0.976	1.0%
1 EUR	1.155	1.110	4.0%	1.126	1.168	-3.6%
100 CNY	14.790	14.570	1.5%	14.320	14.990	-4.5%
100 HKD	12.480	12.630	-1.2%	12.580	12.490	0.7%
100 JPY	0.886	0.878	0.9%	0.895	0.867	3.2%
1 SGD	0.725	0.713	1.7%	0.723	0.731	-1.0%

Sensitivity analysis

For the sensitivity analysis, the two most important currencies were selected in which the Group holds significant amounts of receivables and payables. Based on a two-year volatility of 6.18 % (USD/CHF) and 5.31 % (EUR/CHF), a corresponding change in exchange rates on December 31, 2018, would have changed the equity and the income statement by the amounts listed below.

December, 31	2018			
	Equity		Income statement	
Effect in CHF million	Equity	Income statement	Equity	Income statement
USD	2	2	3	3
EUR	1	1	1	1

A 6.18 % (USD/CHF) and 5.31 % (EUR/CHF) weakening of the Swiss franc against the above currencies would have had the same but opposite effect on the above currencies to the amounts shown above, assuming all other variables remain constant. In the previous period, the sensitivity analysis was calculated with 6.11 % (USD/CHF) and 4.75 % (EUR/CHF).

Financial instruments

Note 19 (cont.)

The Group's exposure to foreign exchange risk was as follows, based on nominal amounts as of December 31:

in million	2018			2017		
	EUR	USD	CHF	EUR	USD	CHF
Trade receivables	13	44	1	12	31	1
Trade payables	9	9	1	5	5	3
Net financial position	9	2	-2	17	35	-
Gross exposure consolidated balance sheet	31	55	0	34	71	4
Gross foreign exchange risk in business operations	-22	50	-37	66	137	-24
Open net foreign exchange forward contracts	-	-82	28	-66	-138	16
Net exposure	9	23	-9	34	70	-4

Interest rate risk

Oerlikon is mainly exposed to interest rate risk in relation to its liquid funds, which are placed at variable rates or held as short-term investments.

Group Treasury prepares and provides the relevant decision support for senior management (Board of Directors, senior financial management) and arranges for hedging against interest rate fluctuations, once approval is given. Such hedging is carried out using derivative financial instruments, such as interest rate swaps and interest rate caps.

As of December 31, the interest rate profile of the Group's interest-bearing financial instruments was:

in CHF million	2018	2017
	Net carry- ing amount	Net carrying amount
Fixed rate interest		
Financial assets	3	3
Financial liabilities	-494	-464
Total	-491	-461
Variable rate interest		
Financial assets	890	962
Financial liabilities	-2	-2
Total	888	960

Cash flow sensitivity analysis for variable rate instruments

A change of 100 basis points (bp) in interest rates at the reporting date would have decreased (increased) profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular foreign currency rates, remain constant.

Effect in CHF million	Income statement	
	100 bp increase	100 bp decrease
2018		
Cash flow sensitivity	6	-6
2017		
Cash flow sensitivity	7	-7

The assumption in the underlying sensitivity analysis is that an increase as well as a decrease by 100 bp has a full impact on interest income and expense. Due to the overall low interest rate environment, a decrease by 100 bp would lead to a negative average interest rate. The tax impact has been included in all figures regarding interest sensitivity.

A change of 100 basis points in interest rates would have no impact on Group equity.

Financial instruments

Note 19 (cont.)

Derivative assets and liabilities

in CHF million	2018			2017		
	Contract volume	Fair value		Contract volume	Fair value	
		positive	negative		positive	negative
Foreign exchange contracts	1 179	3	7	754	7	2

Based on the Group's business activities, the following main currency pairs are hedged: EUR/USD, EUR/CHF, EUR/CNY, USD/CHF and USD/CNY. Positive and negative changes in fair values of foreign exchange contracts are offset by the corresponding gain or loss on the hedged transactions. The maximum risk of counterparty non-performance is equal to the positive deviation from fair value as per year-end. In view of the reputation of the counterparties, this risk is deemed to be minimal. In principle, the maturities of currency hedges correspond to the maturity of the hedged transactions. If the maturity of the base transaction shifts, the maturity of the hedge contract will be shifted correspondingly (roll-over/swaps). Thus, the cash flows deriving from the hedge contracts are synchronized with the impact of the base transaction in the income statement. The hedging transactions are first recorded in other comprehensive income, then released to the income statement when the base transaction is recorded. For this reason, there is no need for a separate presentation of the maturities of hedge contracts and their underlying transactions.

Maturity structure of open foreign exchange contracts at December 31:

in CHF million	Carrying amount	Expected cash flows	6 months or less	6-12 months	1-2 years	2-5 years	more than 5 years
Foreign exchange contracts							
2018	-4	1 179	971	190	18	-	-
2017	5	754	541	200	13	-	-

Netting of financial assets and liabilities

No significant netting of financial assets and liabilities occurred in 2018 and 2017.

Capital management

Note 20

Oerlikon Group's objectives when managing capital are to safeguard the Group's ability to continue as a going concern in order to provide returns for shareholders and benefits for other stakeholders, and to maintain an optimal capital structure to reduce the cost of capital.

The Group monitors capital using the ratios shown below:

in CHF million	2018	2017, restated
Total assets	4 545	4 363
Equity attributable to shareholders of the parent	2 001	1 971
Equity ratio in %	44 %	45 %
Interest-bearing debt	496	466
Total equity	2 021	1 989
Debt-to-equity ratio	0.2	0.2
Average equity attributable to shareholders of the parent	1 986	1 899
Net income attributable to shareholders of the parent	240	148
Return on equity	12 %	8 %

With an equity ratio of 44 % (previous year: 45 %), the Oerlikon Group is above the target range of its financial strategy. The current outstanding bonds have an investment grade rating.

OC Oerlikon participation plans

Note 21

On December 31, 2018, the following equity-settled plans were open, pursuant to which the holder is entitled to shares of OC Oerlikon Corporation AG, Pfäffikon:

Restricted Stock Units (RSU)

Members of the Board of Directors of OC Oerlikon Corporation AG, Pfäffikon receive a portion of their compensation by means of Restricted Stock Units (RSU) which are allocated on the day of the Annual General Meeting of Shareholders and vest upon the next Annual General Meeting of Shareholders, at which time they are converted into Oerlikon shares. For Directors resigning their mandate prior to the end of the term, the number of RSU converted into shares is determined at the sole discretion of the Board of Directors. The fair value for the 2018 plan is based on the stock price at grant date of CHF 15.72.

A small number of additional RSU grants was made in 2018 to selected members of senior management. They were allocated as of May 1, 2018 and October 1, 2018. The fair value for these grants is based on the stock price at grant date of CHF 16.13 and CHF 13.46, respectively.

Year of allocation	Outstanding on 1.1.	Granted in 2018	Forfeited in 2018	Exercised in 2018	Outstanding on 31.12.	Fair Value at grant date in CHF ¹	Expense 2018 in CHF million	Vesting period ²
2016	247 532	–	4 895	226 142	16 495	n.a.	0.0	06.04.16-01.05.19
2017	94 291	–	–	83 412	10 879	n.a.	0.3	12.04.17-01.05.20
2018	–	64 915	–	–	64 915	15.65	0.8	11.04.18-01.05.20
Total	341 823	64 915	4 895	309 554	92 289		1.1	

¹ The fair values relate to the units granted in 2018.

² RSU allocated to the Board of Directors on April 11, 2018 will vest on April 10, 2019. RSU allocated to selected members of senior management in 2018 will vest on May 1, 2019 and 2020.

Performance Share Awards (PSA)

Members of the Executive Committee and senior management may receive a portion of their compensation as long-term bonus in the form of awards for OC Oerlikon Corporation AG, Pfäffikon shares that are based on performance conditions and a vesting period of three years. Their achievement determines the effective number of total Performance Share Awards (PSA). Upon vesting, the effective number of PSA is converted into shares.

Performance conditions for the 2018 plan are based on the absolute and relative Total Shareholder Return (TSR) of Oerlikon over a three-year period. TSR is measured with a starting value of the volume-weighted average share price (VWAP) over the first 30 trading days of the year and an ending value of the VWAP over the last 30 trading days of the year. Absolute TSR results from the cumulated TSR for each of the three years. Relative TSR results from the average percentile amongst a peer group of 11 companies for each of the three years. At the start of the program, the Board of Directors sets target and cap for absolute TSR. A result at or above the cap corresponds to a payout factor of 200 %, a result at target corresponds to 100 % and a result of 0 corresponds to 0 %. For relative TSR, a result at or above the 90th percentile corresponds to a payout factor of 200 %, at the 50th percentile the payout is 100 %, at the 20th percentile the payout factor is 50 % and below it is 0 %. The number of PSA granted, multiplied by the weighted payout factors of absolute and relative TSR results in the final payout. For each PSA granted, the equivalent of dividends paid per share to shareholders during the vesting period is added to the final payout. The shares received are subject to a two-year blocking period.

For the 2018 plan, the fair value at grant date is CHF 18.75 and it was calculated using a Monte Carlo Simulation. Main assumptions include a valuation date stock price of CHF 16.13 and an average expected volatility of the peer group of 33.06 %. Dividend equivalents to which award holders are entitled are reflected in the fair value at grant date.

Year of allocation	Outstanding on 1.1.	Granted in 2018	Forfeited in 2018	Exercised in 2018	Outstanding on 31.12.	Fair Value at grant date in CHF ¹	Expense 2018 in CHF million ²	Vesting Period ³
2015	–	–	–	–	–	–	0.8	01.05.15-30.04.18
2016	587 720	–	24 457	20 784	542 479	n.a.	2.1	01.05.16-30.04.19
2017	576 385	–	10 077	27 360	538 948	n.a.	2.8	01.05.17-30.04.20
2018	–	454 241	16 820	–	437 421	18.75	1.9	01.05.18-30.04.21
Total	1 164 105	454 241	51 354	48 144	1 518 848		7.6	

¹ The fair values relate to the awards granted in 2018.

² The total expense of CHF 7.6 million (previous year: CHF 5.5 million) includes expense related to discontinued operations in the amount of CHF 1.2 million (previous year, restated: CHF 1.0 million).

³ PSA grants issued under the 2015 plan were converted into a pro-rated number of RSU for the remaining vesting period in 2016. Their fair value at grant date continued to be expensed over the vesting period in line with the requirements for the accounting for plan modifications.

Related party transactions

Note 22

Related parties include members of the Board of Directors, the Executive Committee, employee benefit plans or important shareholders as well as companies under their control. Transactions with related parties are generally conducted at arm's length.

Primary shareholder

The share capital of CHF 339 758 576 consists of 339 758 576 registered shares, each with a par value of CHF 1.00. On December 31, 2018, conditional capital amounted to CHF 47 200 000.

The shareholders registered as holding more than 5 % of the shares as at December 31, 2018, were:

Shareholder	Share ownership ¹	
	Number of shares	in % ²
Liwet Holding AG, Zurich, Switzerland ³	140 484 860 ⁴	41.34 %

¹ Source: Disclosure notifications pursuant to Art. 120 et seqq. of the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA), published by SIX Exchange Regulation.

² Basis: Shares issued (339 758 576).

³ The shares of Liwet Holding AG are ultimately held as follows:

- A) 44.46% by Columbus Trust, a trust established under the laws of Cayman Islands, whose ultimate beneficiary is Mr. Viktor F. Vekselberg, Moscow, Russian Federation and Zug, Switzerland
- B) 19.455% by Amapola Development Inc, Panama and Polaris Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Evgeny Olkhovik, Moscow, Russia
- C) 19.455% by Ali International Ltd., Bahamas and Olympia Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Andrey Lobanov, London, United Kingdom
- D) 16.63% by Next Generation Trust, a trust established under the laws of Cyprus, whose ultimate beneficiaries are Moskov Alexey Valerievich, Matveeva Irina Arkadievna, Sivoldaev Mikhail Sergeevich, Khalikov Rinat Shavkiatovich, Cheremikin Igor Vladimirovich and Shtorkh Andrey Alekseevich.

⁴ Source: Disclosure notification by Liwet Holding AG published by SIX Exchange Regulation on May 25, 2018.

Share ownership, options and related instruments

The disclosure below follows Art. 663c Para. 3 of the Swiss Code of Obligations, which requires disclosure of share ownership, options and related instruments individually for each member of the Board of Directors and Executive Committee, including shares, options and related instruments held by persons closely related to, and by companies controlled by members of the Board of Directors and Executive Committee.

Members of the Board of Directors	Number of shares	Number of Restricted Stock Units (RSU)
Prof. Dr. Michael Süss	398 544	17 812
Gerhard Pegam	9 216	7 952
Dr. Jean Botti	19 731	7 952
Geoffery Merszei	11 521	7 952
David Metzger	24 665	7 952
Alexey V. Moskov	24 665	7 952
Total	488 342	57 572

Members of the Executive Committee	Number of shares	Number of Performance Share Awards (PSA)	Number of Restricted Stock Units (RSU)
Dr. Roland Fischer	22 604	346 331	none
Jürg Fedier	490 717	247 929	none
Anna Ryzhova	none	43 728	none
Dr. Helmut Rudigier	9 148	22 687	none
Total	522 469	660 675	-

Related party transactions

Note 22 (cont.)

Overview on the compensation of the Board of Directors and the Executive Committee

in CHF thousand	Executive Committee		Board of Directors	
	2018	2017	2018	2017
Short-term employee benefits	5738	7291	1292	1057
Post-employment benefits	717	804	–	–
Share-based payments	3327	3890	905	905
Total	9782	11985	2197	1962

Disclosures required by the Swiss Ordinance against Excessive Compensation in Stock Exchange Listed Companies on Board and Executive compensation are shown in the Remuneration Report.

Group and associated companies

An overview of the significant Group subsidiary companies can be found on pages 156 and 157. Transactions between the parent company and its subsidiaries as well as between the Group subsidiaries themselves have been eliminated in the consolidated annual financial statements.

In Germany, a Group company rents property from its pension fund. The fair value of the real estate included in the fair value of the assets of the pension fund is CHF 9 million (previous year: CHF 9 million) and the annual rent is CHF 1 million (previous year: CHF 1 million).

In 2018, OC Oerlikon sold goods and services to other related parties in the amount of CHF 6 million (previous year: CHF 4 million), from these transactions accounts receivables in the amount of CHF 1 million (previous year: CHF 1 million) were outstanding as of December 31, 2018.

Participation plans: see Note 21.

During the year under review, there were no other related party transactions.

Contingent liabilities

Note 23

Contingent liabilities as of December 31, 2018, amount to CHF 6 million (previous year: CHF 6 million), mostly for excise duties and debt guarantees. Thereof, CHF 5 million relates to discontinued operations.

Payments under non-cancellable operating leases

Note 24

in CHF million	2018	2017
Due in 1st year	29	30
Due in 2nd year	23	22
Due in 3rd year	19	19
Due in 4th year	14	16
Due in or beyond 5th year	53	49
Total	138	136

The expenses of operating leases charged to the income statement amount to CHF 48 million (previous year: CHF 34 million).

Pledged assets

Note 25

As of December 31, 2018, CHF 9 million assets were pledged as a security (previous year: CHF 9 million). Thereof, CHF 3 million relates to discontinued operations.

Revenue

Note 26

Disaggregation of revenue from contracts with customers by Segment and market:

	Surface Solutions Segment		Manmade Fibers Segment		Total from continuing operations		Discontinued operations		Total incl. discontinued operations	
	January 1 to December 31, 2018	January 1 to December 31, 2017, restated	January 1 to December 31, 2018	January 1 to December 31, 2017, restated	January 1 to December 31, 2018	January 1 to December 31, 2017, restated	January 1 to December 31, 2018	January 1 to December 31, 2017, restated	January 1 to December 31, 2018	January 1 to December 31, 2017, restated
in CHF million										
Agriculture	-	-	-	-	-	-	260	237	260	237
Automotive	397	323	-	-	397	323	166	130	563	453
Aviation	204	177	-	-	204	177	-	-	204	177
BCF Carpet Yarn/Polymer Processing	-	-	203	151	203	151	-	-	203	151
Construction	-	-	-	-	-	-	208	177	208	177
Energy/Mining	-	-	-	-	-	-	61	29	61	29
Filament Spinning/Texturing	-	-	777	441	777	441	-	-	777	441
General Industry	393	349	-	-	393	349	-	-	393	349
Power Generation	71	82	-	-	71	82	-	-	71	82
Staple fiber/Nonwoven	-	-	118	106	118	106	-	-	118	106
Tooling	446	439	-	-	446	439	-	-	446	439
Transportation	-	-	-	-	-	-	150	153	150	153
Total revenue from contracts with customers	1511	1370	1098	698	2609	2068	845	726	3454	2794

Contract balances:

The following revenue-related contract assets (including contract costs) and contract liabilities have been recognized:

	2018	2017, restated
in CHF million		
Contract assets	32	41
thereof:		
Assets recognized from the costs to fulfill a contract	1	1
Contract liabilities	-450	-375

Significant changes in contract assets and contract liabilities balances during the period:

	2018	2017, restated
in CHF million		
Opening balance – Contract assets	41	13
Opening balance – Contract liabilities	-375	-166
Net opening balance	-334	-152
Increase due to revenue recognized over time during the year (including revenue catch-up) ¹	688	410
Decrease due to transfer of AR (sales invoiced, but no advance payments received) or due advanced payments received (not yet invoiced)	-772	-593
Additions of contract costs	1	1
Amortization of contract costs	-1	-
Net closing balance	-418	-334
Thereof presented as contract assets	32	41
Thereof presented as contract liabilities	-450	-375

¹ Of which CHF 375 million were already included in contract liabilities at the beginning of the period (previous year: CHF 166 million).

Revenue

Note 26 (cont.)

Transaction price allocated to the remaining performance obligations:

Revenue related to performance obligations that are unsatisfied (or partially unsatisfied) at the reporting date is expected to be recognized in the future as following:

in CHF million	< 1 year	1-2 years	2-3 years	beyond 3 years	Total
Remaining performance obligations	913	563	210	12	1 698

Subsequent events

Note 27

On July 29, 2018, the Oerlikon Group signed an agreement to divest its Drive Systems Segment to Dana Incorporated (refer to Note 2 "Acquisitions and Divestments"). The transaction closed on February 28, 2019. The total expected consideration for the shares amounts to CHF 492 million. If the transaction would have closed on December 31, 2018, the Oerlikon Group would have incurred a loss on disposal of CHF -158 million. This amount includes a loss on the reclassification of cumulative exchange differences previously recognized in other comprehensive income (equity) of CHF -297 million.

No other events occurred between the balance sheet date and the date on which this report was approved by the Board of Directors that could have a significant impact on the consolidated financial statements 2018.

Segment information

in CHF million	Surface Solutions Segment		Manmade Fibers Segment		Total Segments		Group/ Eliminations	
	2018	2017	2018	2017	2018	2017 ⁷	2018	2017 ⁷
Order intake¹	1574	1412	1157	799	2731	2211	-	-
Order backlog¹	193	124	403	372	596	496	-	-
Sales¹								
Sales to third parties	1511	1370	1098	698	2609	2068	-	-
Sales to other segments	8	6	-	-	8	6	-8	-6
Eliminations	-8	-6	-	-	-8	-6	8	6
	1511	1370	1098	698	2609	2068	-	-
Sales by market region to third parties¹								
Asia/Pacific	447	435	763	449	1210	884	-	-
Europe	691	627	161	148	852	775	-	-
North America	306	247	103	53	409	300	-	-
Other regions	67	61	71	48	138	109	-	-
	1511	1370	1098	698	2609	2068	-	-
Sales by location to third parties¹								
Asia/Pacific	408	389	374	198	782	587	-	-
thereof China	143	138	366	191	509	329	-	-
Europe	736	669	698	477	1434	1146	-	-
thereof Switzerland	128	101	-	-	128	101	-	-
Germany	353	332	698	477	1051	809	-	-
Italy	38	37	-	-	38	37	-	-
North America	323	269	28	22	351	291	-	-
thereof USA	286	240	28	22	314	262	-	-
Other regions	44	44	-	-	44	44	-	-
	1511	1370	1098	698	2609	2068	-	-
Timing of revenue recognition								
At a point in time	1511	1370	411	287	1921	1658	-	-
Transferred over time	-	-	688	410	688	410	-	-
	1511	1370	1098	698	2609	2068	-	-
Capital expenditure for property, plant and equipment and intangible assets²								
Asia/Pacific	49	35	1	1	50	36	-	-
Europe	71	74	24	17	95	91	12	3
North America	44	37	-	-	44	37	-	-
Other regions	5	2	-	-	5	2	1	-
	169	148	26	18	195	166	13	3
EBITDA¹	283	276	128	56	411	332	-5	-10
EBIT¹	144	149	106	33	250	182	-7	-14
Other material items								
Research and development expense	-89	-80	-31	-22	-120	-101	-1	-
Depreciation and amortization	-137	-125	-22	-21	-159	-146	-2	-4
Impairment of property, plant and equipment	-1	-2	-	-2	-1	-4	-	-
Restructuring expense/income	-	-6	-	-	-	-6	-	-
Net operating assets^{1,3}	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17
Operating assets ⁴	1929	1829	667	669	2596	2498	56	34
Operating liabilities ⁵	-345	-310	-726	-600	-1071	-910	-58	-56
	1584	1519	-59	69	1525	1588	-3	-22
Number of employees (full-time equivalents)	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17
Asia/Pacific	1871	1787	1074	956	2945	2743	-	-
Europe	4047	3740	1687	1481	5734	5221	239	214
North America	1372	1226	63	59	1435	1285	-	-
Other regions	364	326	-	-	364	326	10	9
	7654	7079	2824	2496	10478	9575	249	223

	Total from continuing operations		Discontinued operations ⁶		Total incl. discontinued operations	
	2018	2017 ⁷	2018	2017	2018	2017
	2731	2211	854	773	3585	2984
	596	496	195	191	791	687
	2609	2068	845	726	3454	2794
	-	-	-	-	-	-
	-	-	-	-	-	-
	2609	2068	845	726	3454	2794
	1210	884	177	147	1387	1031
	852	775	330	321	1182	1096
	409	300	290	235	699	535
	138	109	47	23	185	132
	2609	2068	845	726	3454	2794
	782	587	233	192	1015	779
	509	329	74	68	583	397
	1434	1146	369	339	1803	1485
	128	101	-	-	128	101
	1051	809	-	-	1051	809
	38	37	363	333	401	370
	351	291	243	195	594	486
	314	262	243	195	557	457
	44	44	-	-	44	44
	2609	2068	845	726	3454	2794
	1921	1658	845	726	2766	2384
	688	410	-	-	688	410
	2609	2068	845	726	3454	2794
	50	36	33	30	83	66
	107	94	34	30	142	124
	44	37	7	8	51	45
	6	2	-	-	6	2
	207	169	75	68	282	237
	406	322	120	98	526	420
	243	168	97	56	340	224
	-120	-101	-12	-12	-132	-114
	-161	-150	-24	-41	-185	-191
	-1	-4	-	-1	-1	-5
	-	-6	12	4	12	-2
	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17
	2652	2532	720	683	3372	3215
	-1129	-966	-273	-300	-1402	-1266
	1523	1566	447	383	1970	1949
	31.12.18	31.12.17	31.12.18	31.12.17	31.12.18	31.12.17
	2945	2743	2973	2730	5918	5473
	5973	5435	1757	1745	7729	7180
	1435	1285	751	689	2186	1974
	374	335	-	-	374	335
	10727	9798	5480	5164	16207	14962

¹ With the adoption of the new accounting standard IFRS 15 the prior-year figures have been restated. Refer to section "Adjustments" of the "Significant accounting principles".

² Does not include non-current assets acquired through business combinations.

³ For 2017 the Drive Systems Segment is shown under discontinued operations.

⁴ Operating assets include current and non-current operating assets (including goodwill and brands), whereas cash and cash equivalents, current financial investments, current income tax receivables as well as deferred tax assets are not included.

⁵ Operating liabilities include current and non-current operating liabilities, whereas current loans and borrowings, non-current financial liabilities, current income tax payables and deferred tax liabilities are not included.

⁶ Discontinued operations in 2018 include the Drive Systems Segment. In 2017, discontinued operations include the Drive Systems Segment and the Vacuum Segment.

⁷ With the reclassification of the Drive Systems Segment to discontinued operations the prior-year figures have been restated. Refer to the "Significant accounting principles".

Reconciliation to the consolidated income statement and balance sheet

in CHF million

	2018	2017
EBIT	243	168
Financial income	21	10
Financial expense	-24	-19
EBT	240	159
Operating assets (continuing operations)	2652	2532
Non-operating assets	1893	1831
Total assets	4545	4363
Operating liabilities (continuing operations)	1129	966
Non-operating liabilities	1395	1408
Total liabilities	2524	2374

Geographical information on non-current assets

in CHF million		2018	2017
Asia/Pacific		229	294
thereof	China	96	92
Europe		1340	1533
thereof	Switzerland	853	907
	Germany	307	336
	Italy	19	149
North America		276	278
thereof	USA	266	264
Other regions		15	11
Total		1860	2115

Non-current assets as shown in the table above do not include deferred tax assets and post-employment benefit assets.

Information about major customers

In 2018 and 2017, no customer represented 10 % or more of the company's third-party sales.

Companies by country

Country	Name, registered office of consolidated companies by country	Currency	Share capital ¹	Group owns %	Number of employees
Australia	Oerlikon Metco Australia Pty Ltd., Bella Vista, NSW/AU	AUD	500 000	100.00	2
Austria	Oerlikon Balzers Coating Austria GmbH, Kapfenberg/AT	EUR	350 000	100.00	152
Austria	OT Textile Verwaltungs GmbH i.Gr., Kapfenberg/AT	EUR	35 000	100.00	–
Belgium	Oerlikon Balzers Coating Benelux N.V., St.-Truiden/BE	EUR	620 000	100.00	54
Brazil	Oerlikon Balzers Revestimentos Metálicos Ltda., Jundiaí, SP/BR	BRL	30 662 100	99.99	130
Brazil	Oerlikon Friction Systems do Brasil Ltda., Diadema, SP/BR	BRL	4 418 300	100.00	32
Brazil	Oerlikon Textile do Brasil Máquinas Ltda., Porto Alegre, RS/BR	BRL	16 385 000	100.00	–
Canada	Oerlikon Metco (Canada) Inc., Fort Saskatchewan, AB/CA	CAD	100	100.00	81
China	GK Drive Systems (Suzhou) Co. Ltd., Suzhou/CN	USD	10 000 000	51.00	76
China	GK Drive Systems Baoding Co. Ltd., Baoding/CN	RMB	7 000 000	51.00	–
China	Graziano Fairfield E-Drive Systems (Changshu) Co., Ltd, Changshu/CN	USD	10 000 000	100.00	–
China	Oerlikon (China) Technology Co. Ltd., Suzhou/CN	USD	30 000 000	100.00	413
China	Oerlikon Balzers Coating (Suzhou) Co. Ltd., Suzhou/CN	USD	6 150 000	100.00	451
China	Oerlikon Barmag Huitong (Yangzhou) Engineering Co. Ltd., Yangzhou/CN	CNY	100 000 000	60.00	45
China	Oerlikon China Equity Ltd., Hong Kong/CN	HKD	253 910 000	100.00	–
China	Oerlikon Drive Systems (Suzhou) Co. Ltd., Suzhou/CN	USD	41 492 725	100.00	69
China	Oerlikon Metco Surface Technology (Shanghai) Co. Ltd., Shanghai/CN	CHF	9 500 000	100.00	338
China	Oerlikon Textile China Investments Ltd., Hong Kong/CN	HKD	266 052 500	100.00	–
China	Oerlikon Textile Far East Ltd., Hong Kong/CN	HKD	100 000	100.00	–
China	Oerlikon Textile Machinery (Wuxi) Co. Ltd., Wuxi/CN	USD	7 000 000	100.00	182
China	Oerlikon Textile Systems Far East Ltd., Hong Kong/CN	HKD	250 000	100.00	–
China	Oerlikon Textile Technology (Beijing) Co. Ltd., Beijing/CN	USD	1 112 200	100.00	259
China	Transmission Trading Limited, Hong Kong/CN	HKD	94 380 000	100.00	–
China	Zigong Golden China Specialty Carbides Co., Ltd., Zigong/CN	CNY	10 000 000	60.00	29
Finland	Oerlikon Balzers Coating Finland Oy, Helsinki/FI	EUR	2 500	100.00	27
France	Oerlikon Balzers France SAS, Ferrières-en-Brie/FR	EUR	4 900 000	100.00	191
Germany	AC-Automation GmbH & Co. KG, Bernkastel-Kues/DE	EUR	200 000	100.00	62
Germany	AC-Verwaltungs GmbH, Bernkastel-Kues/DE	EUR	25 000	100.00	–
Germany	AM Munich Research Institute GmbH, Feldkirchen/DE	EUR	25 000	100.00	–
Germany	Dr. Schippers Unterstützungskasse GmbH, Remscheid/DE	EUR	26 000	100.00	–
Germany	Oerlikon AM Europe GmbH (formerly: citim GmbH), Barleben/DE	EUR	51 000	100.00	140
Germany	Oerlikon AM GmbH, Feldkirchen/DE	EUR	25 000	100.00	45
Germany	Oerlikon Balzers Coating Germany GmbH, Bingen/DE	EUR	511 300	100.00	865
Germany	Oerlikon Business Services GmbH, Remscheid/DE	EUR	25 000	100.00	17
Germany	Oerlikon Deutschland Holding GmbH, Remscheid/DE	EUR	30 680 000	100.00	–
Germany	Oerlikon Friction Systems (Germany) GmbH, Bremen/DE	EUR	1 000 000	100.00	105
Germany	Oerlikon Metaplas GmbH, Salzgitter/DE	EUR	1 000 000	100.00	160
Germany	Oerlikon Metco Coatings GmbH, Salzgitter/DE	EUR	1 000 000	100.00	56
Germany	Oerlikon Metco Europe GmbH, Kelsterbach/DE	EUR	1 000 000	100.00	123
Germany	Oerlikon Metco WOKA GmbH, Barchfeld/DE	EUR	1 000 000	100.00	144
Germany	Oerlikon Surface Solutions Holding GmbH, Kelsterbach/DE	EUR	17 345 100	100.00	–
Germany	Oerlikon Textile GmbH & Co. KG, Remscheid/DE	EUR	41 000 000	100.00	1 625
Germany	Oerlikon Vermögens-Verwaltungs GmbH, Remscheid/DE	EUR	25 000	100.00	–
Germany	W. Reiners Verwaltungs-GmbH, Remscheid/DE	EUR	38 346 900	100.00	–
Great Britain	Graziano Trasmissioni UK Ltd., St. Neots/UK	GBP	40 000	100.00	8
Great Britain	Oerlikon Balzers Coating UK Ltd., Milton Keynes/UK	GBP	2 000 000	100.00	60
Great Britain	Oerlikon Metco (UK) Ltd., Cwmbran/GB	GBP	500 000	100.00	21
Great Britain	Oerlikon Metco Coatings Ltd., Dukinfield/GB	GBP	57 100	100.00	48
Great Britain	Oerlikon Neomet Ltd., Stockport/GB	GBP	292 700	100.00	40
Great Britain	Vocis Limited, Warwick/UK	GBP	200	100.00	24
Hungary	Oerlikon Eldim (HU) Kft, Debrecen/HU	HUF	161 000 000	100.00	176
India	Fairfield Atlas Ltd., Kolhapur/IN	INR	273 205 400	98.37	1 004
India	Graziano Trasmissioni India Pvt. Ltd., New Delhi/IN	INR	267 124 900	100.00	1 824
India	Oerlikon Balzers Coating India Ltd., Pune/IN	INR	70 000 000	100.00	292
India	Oerlikon Friction Systems (India) Ltd., Chennai	INR	7 100 000	100.00	115
India	Oerlikon Textile India Pvt. Ltd., Mumbai/IN	INR	57 360 000	100.00	175
Italy	Oerlikon Balzers Coating Italy S.p.A., Brugherio/IT	EUR	129 100	100.00	96
Italy	Oerlikon Friction Systems (Italia) S.r.l., Caivano/IT	EUR	250 000	100.00	43
Italy	Oerlikon Graziano S.p.A., Cascine Vica Rivoli/IT	EUR	58 697 400	100.00	1 715
Japan	Oerlikon Metco (Japan) Ltd., Tokyo/JP	JPY	180 000 000	100.00	40
Japan	Oerlikon Nihon Balzers Coating Co. Ltd., Hiratsuka/JP	JPY	100 000 000	100.00	191
Liechtenstein	OC Oerlikon Balzers AG, Balzers/LI	CHF	1 000 000	100.00	83
Liechtenstein	Oerlikon (Liechtenstein) Holding AG, Balzers/LI	CHF	120 000	100.00	–

Country	Name, registered office of consolidated companies by country	Currency	Share capital ¹	Group owns %	Number of employees
Liechtenstein	Oerlikon Balzers Coating AG, Balzers/LI	CHF	1 000 000	100.00	212
Luxembourg	Oerlikon Balzers Coating Luxembourg S.à.r.l., Differdange-Nieder Korn/LU	EUR	1 000 000	60.00	29
Malaysia	Oerlikon Balzers Coating Malaysia Sdn. Bhd., Kuala Lumpur/MY	MYR	2 000 000	100.00	43
Mexico	Oerlikon Balzers Coating Mexico S.A. de C.V., Querétaro/MX	MXN	71 458 000	100.00	167
Netherlands	Oerlikon Eldim (NL) B.V., Lomm/NL	EUR	396 400	100.00	255
Netherlands	SAC Oerlikon Automotive Components B.V. in liquidation, Rotterdam/NL	EUR	11 500 000	100.00	–
Philippines	Oerlikon Balzers Coating Philippines Inc., Muntinlupa/PH	PHP	15 000 000	99.99	13
Poland	Oerlikon Balzers Coating Poland Sp. z o.o., Polkowice Dolne/PL	PLN	5 000 000	100.00	125
Poland	Oerlikon Business Services Europe Sp. z o.o., Warsaw/PL	PLN	5 000	100.00	9
Russia	Oerlikon Metco Rus LLC, Lyubertsy/RU	RUB	18 600 000	100.00	21
Russia	Oerlikon Rus LLC, Moscow/RU	RUB	1 700 000	100.00	11
Russia	OOO Oerlikon Balzers Rus, Elektrostal/RU	RUB	1 000 000	100.00	12
Singapore	Oerlikon Balzers Coating Singapore Pte. Ltd., Singapore/SG	SGD	6 000 000	100.00	–
Singapore	Oerlikon Metco (Singapore) Pte. Ltd., Singapore/SG	SGD	600 000	100.00	24
Slovakia	Oerlikon Balzers Coating Slovakia s.r.o., Bratislava/SK	EUR	11 060 000	100.00	199
South Korea	Oerlikon Balzers Coating Korea Co. Ltd., Pyongtaek/KR	KRW	6 300 000 000	89.90	206
Spain	Oerlikon Balzers Coating Spain S.A.U., Antzuola/ES	EUR	150 300	100.00	87
Sweden	Oerlikon Balzers Coating Sweden AB, Stockholm/SE	SEK	11 600 000	100.00	68
Switzerland	Graziano Fairfield AG (formerly: Oerlikon Drive Systems GmbH, Pfäffikon), Freienbach SZ/CH	CHF	10 000 000	100.00	8
Switzerland	InnoDisc AG, Windisch/CH	CHF	100 000	100.00	–
Switzerland	OC Oerlikon Corporation AG, Pfäffikon, Freienbach SZ/CH	CHF	339 758 600	100.00	–
Switzerland	OC Oerlikon Management AG, Pfäffikon, Freienbach SZ/CH	CHF	2 000 000	100.00	95
Switzerland	OC Oerlikon Textile Holding AG, Pfäffikon, Freienbach SZ/CH	CHF	112 019 600	100.00	–
Switzerland	Oerlikon Balzers Coating SA, Brugg, Brugg/CH	CHF	100 000	100.00	27
Switzerland	Oerlikon IT Solutions AG, Pfäffikon, Freienbach SZ/CH	CHF	500 000	100.00	35
Switzerland	Oerlikon Metco AG, Wohlen, Wohlen/CH	CHF	5 000 000	100.00	216
Switzerland	Oerlikon Surface Solutions AG, Pfäffikon, Freienbach SZ/CH	CHF	10 000 000	100.00	278
Switzerland	OT Textile Verwaltungs GmbH, Freienbach/CH	CHF	20 000	100.00	–
Switzerland	Sucotec AG, Langenthal SZ/CH	CHF	300 000	100.00	6
Switzerland	Unaxis GmbH, Freienbach SZ/CH	CHF	20 000	100.00	–
Taiwan	Oerlikon Balzers Coating Taiwan Co. Ltd., Taipeh/TW	TWD	250 000	100.00	–
Thailand	Oerlikon Balzers Coating (Thailand) Co. Ltd., Chonburi/TH	THB	80 000 000	99.99	61
Turkey	Oerlikon Balzers Kaplama Sanayi ve Ticaret Limited Sirketi, Bursa/TR	TRY	2 500 000	99.99	68
USA	Fairfield Manufacturing Company Inc., Wilmington, DE/US	USD	10	100.00	751
USA	Oerlikon AM Medical Inc., Shelton, CT/US	USD	n/a	100.00	75
USA	Oerlikon AM US Inc., Wilmington, DE/US	USD	2 000	100.00	52
USA	Oerlikon Balzers Coating USA Inc., Wilmington, DE/US	USD	20 000	100.00	464
USA	Oerlikon Friction Systems (US) Inc., Dayton OH/US	USD	1 000	100.00	203
USA	Oerlikon Management USA Inc., Pittsburgh, PA/US	USD	500 000	100.00	–
USA	Oerlikon Metco (US) Inc., Westbury NY/US	USD	1 000	100.00	486
USA	Oerlikon Textile Inc., Charlotte, NC/US	USD	3 000 000	100.00	63
USA	Oerlikon USA Holding Inc., Wilmington, DE/US	USD	40 234 000	100.00	–
USA	Scoperta Inc., Wilmington, DE/US	USD	1 600	100.00	10
USA	TH Licensing Inc., Wilmington, DE/US	USD	10	100.00	–

¹ Share capital partly rounded to full hundred. Some articles of association and trade registers still contain old European currencies that are converted to EUR.

OC Oerlikon Corporation AG

Pfäffikon

Freienbach

Report of the statutory auditor to the General Meeting

***on the consolidated financial
statements 2018***





Report of the statutory auditor to the General Meeting of OC Oerlikon Corporation AG Pfäffikon

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of OC Oerlikon Corporation AG and its subsidiaries (the Group), which comprise the consolidated balance sheet as at 31 December 2018 and the consolidated income statement, consolidated statement of comprehensive income, 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 98 to 157) give a true and fair view of the consolidated financial position of the Group as at 31 December 2018 and its consolidated financial performance and its consolidated cash flows for the year then ended in accordance with the International Financial Reporting Standards (IFRS) and comply with Swiss law.

Basis for opinion

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

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

Our audit approach

<p>Overview</p>	<p>Overall Group materiality: CHF 10,500,000</p> <ul style="list-style-type: none"> • We concluded full scope audit work at 21 reporting units across 8 countries • Our audit scope addressed 75% of the Group’s total revenue and 78% of the Group’s total assets <p>As key audit matters, the following areas of focus have been identified:</p> <ul style="list-style-type: none"> • Impairment assessment of goodwill and intangible assets with indefinite useful lives • Divestment of the Drive Systems Segment
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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.

<i>Overall Group materiality</i>	CHF 10,500,000
<i>How we determined it</i>	2.5% of EBITDA (earnings before interest, taxes, depreciation and amortisation)
<i>Rationale for the materiality benchmark applied</i>	We chose EBITDA as the benchmark because, in our view, it is the benchmark against which the performance of the Group is most commonly measured, and it is a generally accepted benchmark. We chose 2.5% which is within the range of acceptable quantitative materiality thresholds in auditing standards.

We agreed with the Audit & Finance Committee that we would report to them misstatements above CHF 525,000 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 consolidated 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.

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 Group financial statements are a consolidation of over 108 reporting units, each of which is considered to be a component. We identified 21 reporting units across 8 countries that, in our view, required a full scope audit due to their size or risk characteristics. This addressed 75% of the Group's total revenue and 77% of the Group's total assets. This was complemented by specified procedures performed for one reporting unit that represents 1% of the Group's total assets, to address specific risks. The remaining 25% of the Group's total revenue and 22% of the Group's total assets was represented by a large number of smaller reporting units.

Where the work was performed by component auditors, we determined the level of involvement we needed to have in the audit work at those reporting units. This year, senior members of the Group audit team visited the component auditors in three countries (China, United States and Germany). These visits



included discussing the risks identified and any issues arising from our work, challenging the audit approach in significant risk areas as well as meeting local management.

For those reporting units in the Group audit scope where a site visit was not undertaken, our involvement included reviewing the component auditors' results and attending clearance calls and meetings.

Further specific audit procedures over central functions, the Group consolidation and areas of significant judgement (including M&A transactions, goodwill, intangible assets, taxation, post-retirement benefits, litigation and IFRS 15 & 16 disclosures) were directly led and performed by the Group audit team.

Not considered in the above coverage is our audit evidence from performing audit work at the Group and segment levels, including testing of monitoring controls and disaggregated analytical review procedures, which covers a significant portion of the Group's smaller and lower risk reporting units that were not directly included in our Group audit scope.

Key audit matters

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

Impairment assessment of goodwill and intangible assets with indefinite useful lives

<i>Key audit matter</i>	<i>How our audit addressed the key audit matter</i>
<p>The impairment assessment for goodwill and intangible assets with indefinite useful lives is considered a key audit matter due to the size of the assets (goodwill: CHF 542 million; brands: CHF 150 million) and the significant estimates required of management. The main estimate relates to the future cash flows of the underlying businesses as well as the discount rates applied to perform the necessary impairment tests. Please refer to pages 129 to 131 (note 13).</p> <p>Goodwill and other intangible assets with indefinite useful lives are allocated to the cash-generating units that are expected to benefit from the acquisitions. Please refer to page 130 (note 13).</p> <p>Goodwill and intangible assets with indefinite useful lives are tested annually for potential impairment whereby the carrying value is compared with the recoverable amount (which is estimated as the higher of the fair value less costs of disposal and the value in use).</p>	<p>We obtained all of the impairment analyses undertaken by management and performed the following procedures:</p> <ul style="list-style-type: none"> • We assessed the determination of the carrying values of the assets of individual cash-generating units and the allocation of goodwill to those units. • We ensured that the value in use calculations are based on the latest business plans. Management follows a process for estimating future cash flows. The forecast period used for future cash flows covers the years 2019 to 2023. The five-year business plan used to determine the value in use is approved by the Board of Directors. • We assessed the reasonableness of the business plan by comparing the implicit growth rates with the market and analyst forecasts. • We further compared the current year actual results with the forecast figures included in the prior year impairment tests to assess management's forecasting accuracy. • We compared model inputs, such as weighted average cost of capital, long-term growth rate and other assumptions, with observable market data.



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- We performed thorough sensitivity analyses on the key assumptions to ascertain the extent of changes in those assumptions that would be required for the goodwill to be impaired.
 - We involved our internal valuation specialists to assess the technical correctness of the value in use model and the consistency of the model compared with previous years.

Overall, on the basis of our review of the impairment testing model, the supporting evidence as well as our own sensitivity analyses, we concluded that the results of the impairment tests performed by management were reasonable.

Divestment of the Drive Systems Segment

Key audit matter

On 29 July 2018, the Oerlikon Group signed an agreement to divest its Drive Systems Segment to Dana Incorporated. The transaction closed on 28 February 2019, after the appropriate approvals in a number of countries were obtained.

Management concluded that the divestment of the Drive Systems Segment met the requirements to be reported in the 2018 consolidated financial statements in accordance with IFRS 5 'Non-current Assets Held for Sale and Discontinued Operations'. Please refer to pages 118 to 120 (note 2).

The application of IFRS 5 is significant to our audit because the assessment of the classification is complex, the transaction and its accounting are non-routine and significant management judgements are involved.

These judgements include, among others, the date of classification of the non-current assets as 'held for sale', the identification of the disposal group and the presentation of its results as discontinued operations.

As a result of management's conclusion, there are requirements concerning the allocation of income and expenses to the discontinued operations, the valuation and presentation in the consolidated financial statements and the disclosures in the notes.

How our audit addressed the key audit matter

As part of our audit, we performed the following main audit procedures:

- We conducted an in-depth review of the underlying share purchase agreement.
 - We assessed the conclusion that the disposal group met the criteria to be classified as 'held for sale' and met the definition of a discontinued operation as of 31 December 2018.
 - We assessed the valuation of the disposal group at the lower of carrying amount and fair value less costs of disposal and management's conclusion as to whether an impairment was necessary at the time the disposal group was classified as 'held for sale'.
 - We assessed the presentation and disclosure in accordance with IFRS 5, including separate presentation in the balance sheet, separate presentation in the consolidated income statement, re-presentation of prior period amounts and disclosure of cash flows from discontinued operations.
 - We assessed the valuation of the underlying assets and liabilities held for sale for the period since presentation as a disposal group.
 - We evaluated the presentation of the results of the Drive Systems Segment as discontinued operations, the allocated income and expenses, including assumptions and estimates made with
-



regard to the allocation. This included consideration of adjustments relating to central cost allocations.

On the basis of the procedures performed, we concluded that the discontinued operations of the Drive Segment were recorded and disclosed in line with the requirements of IFRS 5.

Other information in the annual report

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

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

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

Responsibilities of the Board of Directors for the consolidated financial statements

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

In preparing the consolidated financial statements, the Board of Directors is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting unless the Board of Directors 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, ISAs and Swiss Auditing Standards will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

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



Report on other legal and regulatory requirements

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

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

PricewaterhouseCoopers AG

A handwritten signature in black ink, appearing to read 'St. Räbsamen'.

Stefan Räbsamen
Audit expert
Auditor in charge

A handwritten signature in black ink, appearing to read 'D. Hattrup'.

Dominik Hattrup
Audit expert

Zurich, 1 March 2019

Enclosure:

- Consolidated financial statements (consolidated income statement, consolidated statement of comprehensive income, consolidated balance sheet, consolidated cash flow statement, consolidated statement of changes in equity and notes).

Five-year summary of key figures

in CHF million	2018	2017	2016	2015	2014
Order intake ¹	2731	2211	2413	2537	2647
Order backlog ¹	596	496	447	431	643
Sales ¹	2632	2068	2331	2671	2825
EBITDA ^{1, 4}	406	322	334	338	475
- as % of sales ^{1, 4}	16%	16%	14%	13%	17%
EBIT ^{1, 4}	243	168	158	-306	323
- as % of sales ^{1, 4}	9%	8%	7%	-11%	11%
Net result ³	245	151	388	-418	202
- as % of equity attributable to shareholders of the parent ³	12%	8%	21%	-27%	9%
Cash flow from operating activities ^{3, 6}	429	404	269	393	427
Capital expenditure for property, plant and equipment and intangible assets ¹	207	169	144	150	151
Total assets ³	4545	4363	3825	4097	4966
Equity attributable to shareholders of the parent ³	2001	1971	1826	1554	2188
- as % of total assets ³	44%	45%	48%	38%	44%
Net cash ^{2, 7}	398	499	401	79	114
Net operating assets ^{1, 8}	1523	1949	1867	1875	2486
Number of employees ¹	10727	9798	13840	13723	14039
Personnel expense ¹	782	681	796	785	780
Research and development expenditure ^{1, 9}	116	95	94	103	96

¹ 2018 continuing operations, 2017 restated, 2016, 2015 and 2014 as reported.

² 2018 continuing operations, 2017, 2016, 2015 and 2014 as reported.

³ 2017 restated.

⁴ 2015 includes one-time effects of CHF -112 million (restructuring).

⁵ 2015 includes one-time effects of CHF -588 million (restructuring expenses of CHF -112 million and impairment losses of CHF -476 million).

⁶ Before changes in net current assets.

⁷ Net cash includes cash and cash equivalents and marketable securities less current and non-current debt.

⁸ Net operating assets include current and non-current operating assets (including goodwill and brands and excluding cash and cash equivalents, current financial investments, current income tax receivables and deferred tax assets) less operating liabilities (excluding current financial liabilities, non-current loans and borrowings, current income tax payables and deferred tax liabilities). Net operating assets from continuing operations as per December 31, 2017 amounted to CHF 1 566 million.

⁹ Research and development expenditure includes expense recognized as intangible assets.

OC Oerlikon Corporation AG, Pfäffikon

Income statement of OC Oerlikon Corporation AG, Pfäffikon

in CHF	Notes	2018	2017
Income from investments	2.1	206 090 931	182 353 378
Financial income	2.2	24 237 380	65 250 869
Other income	2.3	51 700 876	39 303 316
Total income		282 029 187	122 789 563
Financial expenses	2.4	-24 258 490	-10 293 852
Personnel expenses		-2 090 279	-2 580 932
Other expenses	2.5	-46 294 103	-29 264 711
Result before taxes and adjustment on loans and investments		209 386 315	80 650 068
Valuation adjustments on loans and investments		-10 933 204	-2 306 348
Result before taxes		198 453 111	78 343 720
Direct taxes		-166 699	-123 474
Result for the year		198 286 412	78 220 246

Balance sheet at December 31 of OC Oerlikon Corporation AG, Pfäffikon

Assets

in CHF	Notes	2018	%	2017	%
Cash and cash equivalents	3.1	414905282	10.5	548621478	15.2
Current financial receivables					
- from third parties		41639	0.0	144425	0.0
- from companies in which the entity holds an investment	3.2	345772950	8.8	409196023	11.3
Other current receivables	3.3	101376000	2.6	35040000	1.0
Prepaid expenses and accrued income		495000	0.0	510169	0.0
Current assets		862590871	21.9	993512095	27.5
Non-current financial receivables					
- from third parties		126017	0.0	126091	0.0
- from companies in which the entity holds an investment	3.4	643777242	16.3	778898733	21.5
Other non-current financial assets	3.5	18532800	0.4	-	
Investments	3.6	2422697747	61.4	1843676219	51.0
Non-current assets		3085133806	78.1	2622701043	72.5
Total assets		3947724676	100.0	3616213138	100.0

Liabilities and equity

in CHF	Notes	2018	%	2017	%
Current interest-bearing payables					
- due to third parties	3.7	300000000	7.6	-	
- due to companies in which the entity holds an investment	3.8	966995773	24.5	766235906	21.2
Current payables					
- due to third parties		174727	0.0	305728	0.0
- due to companies in which the entity holds an investment		527462	0.0	203049	0.0
- due to shareholders		2023922	0.0	-	
Accrued liabilities and deferred income		7739591	0.2	13582965	0.4
Current liabilities		1277461474	32.3	780327648	21.6
Non-current interest-bearing payables					
- due to third parties	3.7	150000000	3.8	450000000	12.4
- due to companies in which the entity holds an investment	3.9	357405647	9.1	294016073	8.1
Provisions	3.10	33618036	0.9	34099785	0.9
Non-current liabilities		541023683	13.7	778115858	21.4
Total liabilities		1818485157	46.0	1558443506	43.0
Share capital	3.11	339758576	8.6	339758576	9.4
Legal capital reserves					
- Reserves from capital contributions	3.12	597457140	15.1	716209224	19.8
Legal retained earnings					
- General legal retained earnings		70593765	1.8	70593765	2.0
Voluntary retained earnings					
- Free reserves and statutory reserves		293910850	7.4	293910850	8.1
- Available earnings					
- Profit brought forward		641925267	16.3	562803374	15.6
- Result for the year		198286412	5.0	78220246	2.2
Treasury shares	3.13	-12692491	-0.3	-3726403	-0.1
Total equity		2129239519	54.0	2057769632	57.0
Total liabilities and equity		3947724676	100.0	3616213138	100.0

Notes to the financial statements of OC Oerlikon Corporation AG, Pfäffikon

Principles (1)**General aspects (1.1)**

These financial statements were prepared according to the provisions of the Swiss Law on Accounting and Financial Reporting (32nd title of the Swiss Code of Obligations). Where not prescribed by law, the significant accounting and valuation principles applied are described below.

Financial receivables (1.2)

Financial receivables include loans from third parties and from companies in which the entity holds an investment. Loans granted in foreign currencies are translated at the rate at the balance sheet date, whereby unrealized losses are recorded but unrealized profits are not recognized.

Treasury shares (1.3)

Treasury shares are recognized at acquisition cost and deducted from shareholders' equity at the time of acquisition. In case of a resale, the gain or loss is recognized directly in equity in the position profit brought forward.

Interest-bearing payables (1.4)

Interest-bearing payables are recognized in the balance sheet at nominal value.

Foregoing a cash flow statement and additional disclosures in the notes (1.5)

As OC Oerlikon Corporation AG, Pfäffikon has prepared its consolidated financial statements in accordance with a recognized accounting standard (IFRS), it has decided to forego presenting additional information on interest-bearing payables and audit fees in the notes, as well as a cash flow statement, in accordance with the law.

Information on income statement items (2)**Income from investments (2.1)**

The income from investments consists mainly of dividend income from companies in which the entity holds an investment.

Financial income (2.2)

Financial income mainly includes interest income from loans from companies in which the entity holds an investment as well as net exchange gains (if any).

Other income (2.3)

Other income consists mainly of trademark fees.

Financial expenses (2.4)

Financial expenses include interest expenses due to companies in which the entity holds an investment and due to third parties as well as net exchange losses (if any).

Other expenses (2.5)

Other expenses consist mainly of management service fees charged by OC Oerlikon Management AG, Pfäffikon.

Information on balance sheet items (3)**Cash and cash equivalents (3.1)**

This item consists mainly of current balances denominated in Swiss francs, Euros and US dollars and is held with European banks.

Current financial receivables from companies in which the entity holds an investment (3.2)

The current financial receivables from companies in which the entity holds an investment consist mainly cash pool deposits in Swiss francs, Euros and US dollars.

Other current receivables (3.3)

The other current receivables consist mainly of deposits in Euros.

Non-current financial receivables from companies in which the entity holds an investment (3.4)

The non-current financial receivables from companies in which the entity holds an investment consist mainly of non-current deposits in Swiss francs and Euros.

Other non-current financial assets (3.5)

The other non-current financial assets consist of a 14.54% investment in an unquoted equity investment.

Investments (3.6)

OC Oerlikon Corporation AG, Pfäffikon holds on the balance sheet date significant investments which are listed in the table on page 172. These investments are recorded at historical costs less any valuation adjustments.

Interest-bearing payables due to third parties (3.7)

The interest-bearing payables due to third parties contain the following bonds:

Conditions on outstanding bonds:

	CHF thousand	CHF thousand
	2014-2019	2014-2024
Nominal value at December 31, 2018	300 000	150 000
Nominal value at December 31, 2017	300 000	150 000
Interest	1.250 %	2.625 %
Duration in years	5	10
Maturity	June 17, 2019	June 17, 2024

Additional information about the bonds can be found in Note 18 of the Group's consolidated financial statements on page 138.

Notes to the financial statements of OC Oerlikon Corporation AG, Pfäffikon

Current interest-bearing payables due to companies in which the entity holds an investment (3.8)

The current interest-bearing payables due to companies in which the entity holds an investment contain mainly cash pool debts in Swiss francs, Euros and US dollars.

Non-current interest-bearing payables due to companies in which the entity holds an investment (3.9)

The non-current interest-bearing payables due to companies in which the entity holds an investment contain long-term loans mainly in Swiss francs and Hong Kong dollars.

Provisions (3.10)

Provisions cover mainly risks related to investments and other risks.

Share capital (3.11)

The share capital of CHF 339 758 576 (previous year: CHF 339 758 576) consists of 339 758 576 registered shares (previous year: 339 758 576), each with a par value of CHF 1.00. On December 31, 2018, conditional capital amounted to CHF 47 200 000 (previous year: 47 200 000).

Reserves from capital contributions (3.12)

As of December 31, 2018, OC Oerlikon Corporation AG, Pfäffikon shows reserves from capital contributions of CHF 597 457 140. Thereof CHF 268 706 303 are not yet available for distribution due to the current practice of the Swiss Federal Tax Authorities. Dividend distributions can be done out of available reserves from capital contribution first. Available reserves from capital contributions amount to CHF 328 750 837. In 2018, the value of available reserves from capital contributions has changed due to dividend payment of CHF 118 752 084.

Reserves from capital contributions:

in CHF	available	not available yet	Total
Balance at January 1, 2018	447 502 921	268 706 303	716 209 224
Dividend payment	-118 752 084	-	-118 752 084
Balance at December 31, 2018	328 750 837	268 706 303	597 457 140

Treasury shares (3.13)

Treasury shares are shown directly in equity.

in CHF	Amount	Number of treasury shares	Lowest rate	Highest rate	Average rate of treasury shares
Balance at January 1, 2018	3 726 403	322 194	-	-	-
Acquisitions	13 563 242	962 981	10.723	17.808	14.085
Allocation to Board members	-987 623	-73 640	-	-	13.412
Allocation to management	-3 609 531	-269 137	-	-	13.412
Balance at December 31, 2018	12 692 491	942 398	-	-	-

in CHF	Amount	Number of treasury shares	Lowest rate	Highest rate	Average rate of treasury shares
Balance at January 1, 2017	5 383 480	465 473	-	-	-
Acquisitions	285	22	12.950	12.950	12.950
Allocation to board members	-819 677	-70 872	-	-	11.566
Allocation to management	-837 685	-72 429	-	-	11.566
Balance at December 31, 2017	3 726 403	322 194	-	-	-

Other information (4)

Joint and several liabilities in favor of Group companies (4.1)

VAT group

OC Oerlikon Corporation AG, Pfäffikon belongs to a VAT group and therefore all participants are jointly liable to the Swiss Federal Tax Administration for the value added tax debts of the whole group.

Cash pooling group

All participants are jointly liable for any liabilities related to the Cash Pooling.

Full-time equivalents (4.2)

OC Oerlikon Corporation AG, Pfäffikon does not have any employees.

Contingent liabilities (4.3)

The contingent liabilities relate primarily to corporate guarantees and bank guarantees in favor of companies in which the entity holds an investment and amount to CHF 448 million (previous year: CHF 452 million).

Notes to the financial statements of OC Oerlikon Corporation AG, Pfäffikon

Significant shareholders (4.4)

Significant shareholders registered as holding more than 5 % of the shares as at December 31, 2018, were:

Share ownership¹

Shareholder	2018		2017	
	Number of shares	in % ²	Number of shares	in %
Liwet Holding AG, Zurich, Switzerland ³	140 484 860 ⁴	41.34 %	–	–
Renova Group	–	–	146 222 889	43.04 %

¹ Source: Disclosure notifications pursuant to Art. 120 et seq. of the Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA), published by SIX Exchange Regulation.

² Basis: Shares issued (339 758 576).

³ The shares of Liwet Holding AG are ultimately held as follows:

- A) 44.46% by Columbus Trust, a trust established under the laws of Cayman Islands, whose ultimate beneficiary is Mr. Viktor F. Vekselberg, Moscow, Russian Federation and Zug, Switzerland
- B) 19.455% by Amapola Development Inc, Panama and Polaris Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Evgeny Olkhovik, Moscow, Russia
- C) 19.455% by Ali International Ltd., Bahamas and Olympia Trust, a trust established under the laws of Cyprus, whose ultimate beneficiary is Mr. Andrey Lobanov, London, United Kingdom
- D) 16.63% by Next Generation Trust, a trust established under the laws of Cyprus, whose ultimate beneficiaries are Moskov Alexey Valerievich, Matveeva Irina Arkadievna, Sivolodav Mikhail Sergeevich, Khalikov Rinat Shavkiatovich, Cheremikin Igor Vladimirovich and Shtorkh Andrey Alekseevich.

⁴ Source: Disclosure notification by Liwet Holding AG published by SIX Exchange Regulation on May 25, 2018.

Equity owned by Executive Committee and the Board of Directors, including any related parties (4.5)**Members of the Board of Directors:**

	2018		2017	
	Number of shares	Number of shares	Number of shares	Number of shares
Prof. Dr. Michael Süss	398 544	41 877	–	–
Gerhard Pegam	9 216	–	–	–
Dr. Jean Botti	19 731	10 515	–	–
Geoffery Merszei	11 521	–	–	–
David Metzger	24 665	13 144	–	–
Alexey V. Moskov	24 665	13 144	–	–
Total	488 342	78 680		

Members of the Executive Committee:

	2018		2017	
	Number of shares	Number of shares	Number of shares	Number of shares
Dr. Roland Fischer	22 604	3 066	–	–
Jürg Fedier	490 717	459 970	–	–
Dr. Helmut Rudigier	9 148	6 443	–	–
Dr. Bernd Matthes (until October 31, 2017)	–	20 403	–	–
Georg Stausberg (until October 31, 2017)	–	40 258	–	–
Total	522 469	530 140		

Shares or options on shares for members of the Board of Directors, Executive Committee and Senior Management (4.6)

Shares or options on shares are used for share-based compensation of members of the Board of Directors compensated by OC Oerlikon Corporation AG, Pfäffikon as well as of the Executive Committee and Senior Management employed by other companies of the Group. The number of Restricted Stock Units (RSU) and Performance Share Awards (PSA) is calculated based on fair value at grant date. The allocation was as follows:

in CHF thousand	2018		2017	
	Number of RSU and PSA	Amount	Number of RSU and PSA	Amount
Allocated to authorized members	519 156	9 533	676 442	9 208

For year 2018 a total of 519 156 Restricted Stock Units (RSU) and Performance Share Awards (PSA) are allocated and the total granted value for share-based-programms amounts to CHF 9.5 million. Thereof, 57 572 allocated Restricted Stock Units (RSU) and a granted value of CHF 0.9 million relates to the Board of Directors. Another 177 436 allocated Restricted Stock Units (RSU) and Performance Share Awards (PSA) and a granted value of CHF 3.3 million is attributed for the Executive Committee.

For year 2017 a total of 676 442 Restricted Stock Units (RSU) and Performance Share Awards (PSA) are allocated and the total granted value for share-based-programms amounts to CHF 9.2 million. Thereof, 83 412 allocated Restricted Stock Units (RSU) and a granted value of CHF 0.9 million relates to the Board of Directors. Another 276 694 allocated Restricted Stock Units (RSU) and Performance Share Awards (PSA) and a granted value of CHF 3.9 million is attributed for the Executive Committee.

Significant events after the balance sheet date (4.7)

On July 29, 2018, the Oerlikon Group signed an agreement to divest its Drive Systems Segment to Dana Incorporated. The transaction closed on February 28, 2019. The total expected consideration for the shares amounts to CHF 492 million. If the transaction would have closed on December 31, 2018, OC Oerlikon Corporation AG, Pfäffikon would have reported a profit of CHF 16 million on the sale.

There are no other significant events after the balance sheet date which could impact the book value of the assets or liabilities or which should be disclosed here.

Investments

Company	Place of business	Currency	Share Capital		Capital and share of votes in %	
			2018	2017	2018	2017
GrazianoFairfield AG (formerly: Oerlikon Drive Systems GmbH, Pfäffikon)	Freienbach SZ/CH	CHF	10000000	20000	100.00	100.00
InnoDisc AG	Windisch AG/CH	CHF	100000	100000	100.00	100.00
OC Oerlikon Management AG, Pfäffikon	Freienbach SZ/CH	CHF	2000000	2000000	100.00	100.00
OC Oerlikon Textile Holding AG, Pfäffikon	Freienbach SZ/CH	CHF	112019600	112019600	100.00	100.00
Oerlikon Balzers Coating (Thailand) Co. Ltd.	Chonburi/TH	THB	80000000	80000000	99.99	99.99
Oerlikon Balzers Coating India Ltd.	Pune/IN	INR	70000000	70000000	78.40	78.40
Oerlikon Balzers Coating Korea Co. Ltd.	Pyongtaek/KR	KRW	6300000000	6300000000	89.10	89.10
Oerlikon Balzers Coating Luxembourg S.à.r.l.	Differdange-Nied- ercorn/LU	EUR	1000000	1000000	60.00	60.00
Oerlikon Balzers Coating Sweden AB	Stockholm/SE	SEK	11600000	11600000	100.00	100.00
Oerlikon Balzers France SAS	Ferrières-en- Bris/FR	EUR	-	4000000	-	100.00
Oerlikon Balzers Kaplama Sanayi ve Ticaret Limited Sirketi	Bursa/TR	TRY	2500000	2500000	99.99	99.99
Oerlikon Business Services Europe Sp. z.o.o.	Warsaw/PL	PLN	5000	-	100.00	-
Oerlikon Deutschland Holding GmbH	Remscheid/DE	EUR	30680000	30680000	10.00	6.00
Oerlikon IT Solutions AG, Pfäffikon	Freienbach SZ/CH	CHF	500000	500000	100.00	100.00
Oerlikon Surface Solutions AG, Pfäffikon	Freienbach SZ/CH	CHF	10000000	10000000	100.00	100.00
Oerlikon USA Holding Inc.	Wilmington DE/USA	USD	40234000	40234000	100.00	62.00
Oerlikon Vermö- gens-Verwaltungs GmbH	Remscheid/DE	EUR	25000	25000	100.00	100.00
OOO Oerlikon Balzers Rus	Elektrostal/RU	RUB	1000000	1000000	100.00	100.00
OT Textile Verwaltungs GmbH	Freienbach SZ/CH	CHF	20000	20000	100.00	100.00
Primateria AB	Uppsala/SE	SEK	-	137000	-	100.00
PT Oerlikon Balzers Artoda Indonesia	Bekasi/ID	IDR	18000000000	18000000000	42.00	42.00
Unaxis GmbH	Freienbach SZ/CH	CHF	20000	20000	90.00	90.00

Refer to "Companies by Country" on pages 156 and 157 for a complete list of companies which are held directly and indirectly by OC Oerlikon Corporation AG.

Changes in equity of OC Oerlikon Corporation AG, Pfäffikon

in CHF million	Share capital	Reserves from capital contributions	General legal retained earnings	Free reserves and statutory reserves	Available earnings	Treasury shares	Total equity
Balance at January 1, 2016	339.8	919.8	70.6	293.9	502.0	-5.9	2 120.2
Changes in treasury shares	0.0	0.0	0.0	0.0	-0.2	0.5	0.3
Dividend payment	0.0	-101.8	0.0	0.0	0.0	0.0	-101.8
Result for the year	0.0	0.0	0.0	0.0	61.0	0.0	61.0
Balance at December 31, 2016	339.8	818.0	70.6	293.9	562.8	-5.4	2 079.7
Changes in treasury shares	0.0	0.0	0.0	0.0	0.0	1.7	1.7
Dividend payment	0.0	-101.8	0.0	0.0	0.0	0.0	-101.8
Result for the year	0.0	0.0	0.0	0.0	78.2	0.0	78.2
Balance at December 31, 2017	339.8	716.2	70.6	293.9	641.0	-3.7	2 057.8
Changes in treasury shares	0.0	0.0	0.0	0.0	0.9	-9.0	-8.1
Dividend payment	0.0	-118.8	0.0	0.0	0.0	0.0	-118.8
Result for the year	0.0	0.0	0.0	0.0	198.3	0.0	198.3
Balance at December 31, 2018	339.8	597.4	70.6	293.9	840.2	-12.7	2 129.2

Proposal of the Board of Directors

The available earnings amount to:

in CHF	2018
Retained earnings brought forward	641 023 620
Change on Treasury Shares	901 647
Result for the year	198 286 412
Available earnings	840 211 679

The Board of Directors proposes to the Annual General Meeting of Shareholders that the available earnings are to be appropriated as follows:

Balance to be carried forward	840 211 679
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The Board of Directors proposes to the Annual General Meeting of Shareholders a distribution of a dividend, distributed from reserves from capital contributions:

Dividend of CHF 1.00 on dividend bearing shares with a nominal value of CHF 1.00 each, distributed from reserves from capital contributions (thereof CHF 0.97 without withholding tax)	339 758 576
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The company will not pay dividend on treasury shares held by OC Oerlikon Corporation AG, Pfäffikon.

Pfäffikon SZ, March 1, 2019

On behalf of the Board of Directors
Chairman

Prof. Dr. Michael Süss

OC Oerlikon Corporation AG

***Pfäffikon
Freienbach***

Report of the statutory auditor to the General Meeting

***on the financial statements
2018***





Report of the statutory auditor to the General Meeting of OC Oerlikon Corporation AG Pfäffikon

Report on the audit of the financial statements

Opinion

We have audited the financial statements of OC Oerlikon Corporation AG, which comprise the balance sheet as at 31 December 2018, and the income statement and notes for the year then ended, including a summary of significant accounting policies.

In our opinion, the financial statements (pages 166–173) as at 31 December 2018 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

<p>Overview</p>	<p>Overall materiality: CHF 21,300,000</p> <p>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.</p> <p>As key audit matter, the following area of focus has been identified:</p> <ul style="list-style-type: none"> • Valuation of investments
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Materiality

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

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

<i>Overall materiality</i>	CHF 21,300,000
<i>How we determined it</i>	1% of net assets
<i>Rationale for the materiality benchmark applied</i>	We chose net assets as the benchmark because OC Oerlikon Corporation AG, Pfäffikon is a holding company that mainly holds investments in subsidiaries. The profit of the holding company fluctuates from year to year depending on whether investees pay dividends. Furthermore, net assets is considered a key element for the user of the financial statements and it is a generally accepted benchmark for determining materiality according to auditing standards. We chose 1% which is within the range of acceptable quantitative materiality thresholds in auditing standards.

We agreed with the Audit & Finance Committee that we would report to them misstatements above CHF 525,000 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.



Valuation of investments

<i>Key audit matter</i>	<i>How our audit addressed the key audit matter</i>
<p>The valuation of investments is considered a key audit matter due to the size of the investment balance (CHF 2,423 million), the significant estimates involved in the valuation process and the estimation of the future profitability of the individual directly and indirectly held investments.</p> <p>To identify indicators of impairment of individual investments, management compared the investment value with the shareholders' equity and financial performance of the respective subsidiaries. For this purpose, certain investments were assessed together as a group.</p>	<p>We tested material movements in the investment balance by agreeing the underlying transactions to relevant supporting documentation, such as share purchase agreements, share certificates and bank statements.</p> <p>We assessed the appropriateness of management's grouping of the investments, which was done based on the homogeneity of the investments. We did this by reviewing the different elements of management's assessment and validating them based on our understanding of the economic links among the Oerlikon Group companies.</p> <p>We re-performed the valuation assessment carried out by management. Our assessment included the evaluation of the investments' underlying net assets as well as, in some cases, the evaluation of their capitalised earnings value and the appropriateness of the discount rates applied.</p> <p>Overall, on the basis of the procedures performed, we could conclude that the grouping of investments is reasonable and that management's assessments are based upon reasonable and consistently applied assumptions that support management's impairment conclusions.</p>

Responsibilities of the Board of Directors for the financial statements

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

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

Auditor's responsibilities for the audit of the financial statements

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



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

Report on other legal and regulatory requirements

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

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

PricewaterhouseCoopers AG

A handwritten signature in black ink, appearing to read 'St. Räbsamen', written in a cursive style.

Stefan Räbsamen
Audit expert
Auditor in charge

A handwritten signature in black ink, appearing to read 'D. Hattrup', written in a cursive style.

Dominik Hattrup
Audit expert

Zurich, 1 March 2019

Enclosures:

- Financial statements (balance sheet, income statement and notes)
- Proposed appropriation of the available earnings

Legal structure

Legal structure of consolidated companies as per December 31, 2018

OC Oerlikon Corporation AG, Pfäffikon, Freienbach SZ/CH
-GrazianoFairfield AG, Freienbach SZ/CH
· Fairfield Manufacturing Company Inc., Wilmington, DE/US
· TH Licensing Inc., Wilmington, DE/US
· Fairfield Atlas Ltd., Kolhapur/IN
· GK Drive Systems (Suzhou) Co., Ltd., Suzhou/CN
· GK Drive Systems Baoding Co. Ltd., Baoding/CN
· Graziano Fairfield E-Drive Systems (Changshu) Co., Ltd, Changshu/CN
· Oerlikon Drive Systems (Suzhou) Co. Ltd., Suzhou/CN
· Oerlikon Graziano S.p.A., Cascine Vica Rivoli/IT
· Graziano Trasmissioni India Pvt. Ltd., New Delhi/IN
· Graziano Trasmissioni UK Ltd., St. Neots/GB
· Vocis Limited, Warwick/GB
· Transmission Trading Ltd., Hong Kong/CN
-InnoDisc AG, Windisch/CH
-OC Oerlikon Management AG, Pfäffikon, Freienbach SZ/CH
-OC Oerlikon Textile Holding AG, Pfäffikon, Freienbach SZ/CH
· Oerlikon China Equity Ltd., Hong Kong/CN
· Oerlikon Textile China Investments Ltd., Hong Kong/CN
· Oerlikon (China) Technology Co. Ltd., Suzhou/CN
· Oerlikon Metco Surface Technology (Shanghai) Co. Ltd., Shanghai/CN
· Oerlikon Textile Machinery (Wuxi) Co. Ltd., Wuxi/CN
· Oerlikon Barmag Huitong (Yangzhou) Engineering Co., Ltd, Yangzhou/CN
· Oerlikon Textile do Brasil Máquinas Ltda., Porto Alegre, RS/BR
· Oerlikon Textile Systems Far East Ltd., Hong Kong/CN
· OT Textile Verwaltungs GmbH i.Gr., Kapfenberg/AT
· SAC Oerlikon Automotive Components B.V. in liquidation, Amsterdam/NL
· W. Reiners Verwaltungs-GmbH, Remscheid/DE
· Dr. Schippers Unterstützungskasse GmbH, Remscheid/DE
· Oerlikon Textile GmbH & Co. KG, Remscheid/DE
· AC-Automation GmbH & Co. KG, Bernkastel-Kues/DE
· AC-Verwaltungs GmbH, Bernkastel-Kues/DE
· Oerlikon Deutschland Holding GmbH, Remscheid/DE
· Oerlikon Balzers Coating Benelux N.V., St.-Truiden/BE
· Oerlikon Business Services GmbH, Remscheid/DE
· Oerlikon Surface Solutions Holding GmbH, Kelsterbach/DE
· AM Munich Research Institute GmbH, Feldkirchen/DE
· Oerlikon AM Europe GmbH, Barleben/DE
· Oerlikon AM GmbH, Feldkirchen/DE
· Oerlikon Balzers Coating Germany GmbH, Bingen/DE
· Oerlikon Friction Systems (Germany) GmbH, Bremen/DE
· Oerlikon Metaplas GmbH, Salzgitter/DE
· Oerlikon Metco Coatings GmbH, Salzgitter/DE
· Oerlikon Metco Europe GmbH, Kelsterbach/DE
· Oerlikon Metco WOKA GmbH, Barchfeld/DE
· Oerlikon Textile Far East Ltd., Hong Kong/CN
· Oerlikon Textile Technology (Beijing) Co. Ltd., Beijing/CN
· Oerlikon Textile India Pvt. Ltd., Mumbai/IN
-Oerlikon Balzers Coating India Pvt. Ltd., Pune/IN
· Oerlikon Friction Systems (India) Ltd., Chennai/IN
-Oerlikon Balzers Coating (Thailand) Co. Ltd., Chonburi/TH
-Oerlikon Balzers Coating Korea Co. Ltd., Pyongtaek/KR
-Oerlikon Balzers Coating Luxembourg S.à r.l., Differdange-Niedercoorn/LU
-Oerlikon Balzers Coating Sweden AB, Stockholm/SE
· Oerlikon Balzers Coating Finland Oy, Helsinki/FI
-Oerlikon Balzers Kaplama Sanayi ve Ticaret Limited Sirketi, Bursa/TR
-Oerlikon Business Services Europe Sp. z.o.o., Warsaw/PL
-Oerlikon IT Solutions AG, Pfäffikon, Freienbach SZ/CH
-Oerlikon Surface Solutions AG, Pfäffikon, Freienbach SZ/CH
· Oerlikon (Liechtenstein) Holding AG, Balzers/LI
· OC Oerlikon Balzers AG, Balzers/LI
· Oerlikon Balzers Coating AG, Balzers/LI

Legal structure of consolidated companies as per December 31, 2018

· Oerlikon Balzers Coating (Suzhou) Co. Ltd., Suzhou/CN
· Oerlikon Balzers Coating Austria GmbH, Kapfenberg/AT
· Oerlikon Balzers Coating Italy S.p.A., Brugherio/IT
· Oerlikon Balzers Coating SA, Brügg, Brügg/CH
· Oerlikon Balzers Coating Singapore Pte. Ltd., Singapore/SG
· Oerlikon Balzers Coating Spain S.A.U, Antzuola/ES
· Oerlikon Balzers Coating Poland Sp.z o.o., Polkowice Dolne/PL
· Oerlikon Balzers Coating Mexico S.A. de C.V., Querétaro/MX
· Oerlikon Balzers Coating Malaysia Sdn. Bhd., Kuala Lumpur/MY
· Oerlikon Balzers Coating Philippines, Inc., Muntinlupa/PH
· Oerlikon Balzers Coating Slovakia s.r.o., Bratislava/SK
· Oerlikon Balzers Coating Taiwan Co. Ltd., Taipeh/TW
· Oerlikon Balzers Coating UK Ltd., Milton Keynes/GB
· Oerlikon Metco Coatings Ltd., Dukinfield/GB
· Oerlikon Balzers France SAS, Ferrières-en-Brie/FR
· Oerlikon Balzers Revestimentos Metálicos Ltda., Jundiaí, SP/BR
· Oerlikon Friction Systems do Brasil Ltda., Diadema, SP/BR
· Oerlikon Eldim (NL) B.V., Lomm/NL
· Oerlikon Eldim (HU) Kft., Debrecen/HU
· Oerlikon Friction Systems (Italia) S.r.l., Caivano/IT
· Oerlikon Metco (Canada) Inc., Fort Saskatchewan, AB/CA
· Oerlikon Metco (Japan) Ltd., Tokyo/JP
· Oerlikon Metco (UK) Ltd., Cwmbran/GB
· Oerlikon Metco (Singapore) Pte. Ltd., Singapore/SG
· Zigong Golden China Speciality Carbides Co. Ltd., Zigong/CN
· Oerlikon Metco AG, Wohlen, Wohlen/CH
· Oerlikon Metco Australia Pty Ltd., Bella Vista, NSW/AU
· Oerlikon Metco Rus LLC, Lyubertsy/RU
· Oerlikon Neomet Ltd., Stockport/GB
· Oerlikon Nihon Balzers Coating Co. Ltd., Hiratsuka/JP
· Sucotec AG, Langenthal SZ/CH
-Oerlikon USA Holding Inc., Wilmington, DE/US
· Oerlikon AM Medical Inc., Shelton, CT/US
· Oerlikon AM US Inc., Wilmington, DE/US
· Oerlikon Balzers Coating USA Inc., Wilmington, DE/US
· Oerlikon Metco (US) Inc., Westbury NY/US
· Oerlikon Friction Systems (US) Inc., Dayton OH/US
· Oerlikon Management USA Inc., Pittsburgh, PA/US
· Oerlikon Textile Inc., Charlotte, NC/US
· Scoperta Inc., Wilmington, DE/US
-Oerlikon Vermögens-Verwaltungs GmbH, Remscheid/DE
-OOO Oerlikon Balzers Rus, Elektrostal/RU
-OT Textile Verwaltungs GmbH, Freienbach/CH
-Unaxis GmbH, Freienbach SZ/CH
· Oerlikon Rus LLC, Moscow/RU

Glossary

General

AGM	Annual General Meeting of Shareholders
CAGR	Compound Annual Growth Rate is an annual growth rate over a period of years, where each year's growth is included in the following year to generate further growth
CoNQ	Cost of non quality are the costs associated with not providing quality products or services
CAPEX	Capital expenditure are funds used by a company to acquire, upgrade and maintain physical assets such as property, industrial buildings or equipment
EBIT(DA)	Earnings before interest and tax (depreciation and amortization)
FDA	The Food and Drug Administration is a federal agency of the United States Department of Health and Human Services
HMI	Human machine interface is a user interface or dashboard that connects a person to a machine, system, or device
ITAR	International Traffic in Arms Regulations are export control regulations of the US Government
KPI	Key performance indicator is a measurable value that demonstrates how effectively a company is achieving key business objectives
LOTO	Lockout/tagout is a safety procedure used in industry and research settings to ensure that dangerous machines are properly shut off and not able to be started up again prior to the completion of maintenance or repair work
LTAFR	Lost time accidents frequency rate
OOE	Oerlikon Operational Excellence
OPEC	The Organization of the Petroleum Exporting Countries is an intergovernmental organization of 14 nations with a stated mission to coordinate and unify the petroleum policies of its member countries and ensure the stabilization of oil markets
PMI	Post merger integration is a process of combining and rearranging businesses to materialize potential efficiencies and synergies that usually motivate mergers and acquisitions
ROCE	Return on capital employed is a ratio used as a measurement between earnings and the amount invested into a project or company
SMI	Swiss Market Index: Switzerland's blue-chip stock market index. It is made up of 20 of the largest and most liquid Swiss Performance Index (SPI) large- and mid-cap stocks.
SMIM	Swiss Market Index Mid: consists of 30 biggest mid-cap Swiss companies which are not already covered in the SMI.
TAFR	Total Accident Frequency Rate

Surface Solutions Segment

AM	Additive Manufacturing is the process of joining materials to make objects, usually layer by layer. A common subtype of AM is 3D printing
Arc-PVD	A technique in which an electric arc is used to vaporize materials, which then condense to form a thin film
BALIFOR T	Ideal for high temperature applications, low lubrication applications for longer periods and in aggressive additive environments
BALINIT C	A non-hazardous and REACH-conforming option to hard chrome plating
BALINIT FORMERA	Coatings for advanced high strength steel reinforced with a new aluminum die casting feature
BALINIT TRITON	An FDA approved system that is foodstuff-neutral for applications such as plastic injection moulds and non-lubricated systems
BALIQ CARBOS	A brand-new hydrogen-free carbon coating based on Oerlikon Balzers' S3p technology that provides a high degree of hardness and abrasive wear resistant optimal in applications where hardness is a key, critical criterion, such as for sharp and durable food processing components, high-end decorative parts and medical instruments
BALIQ UNIQUE	Provide color-coding functions for the tooling market
BALITHERM IONIT OX	A coating technology that combines a conventional nitriding process - such as gas nitriding or gas nitrocarburizing - with plasma and controlled oxidation processes.
CVD	Chemical vapor deposition is a deposition method used to produce high quality, high-performance thin-film coatings as the result of reactions between various gaseous phases and the heated surface of substrates
DLC	Diamond-like carbon coating is a nanocomposite coating that has the unique properties of natural diamond low friction, high hardness, and high corrosion resistance
ePD	Embedded PVD for Design parts is an environmentally friendly coating technology for metallization of plastic
eSync/S3	eSync is based on Oerlikon's Segmented Synchronizer System. This system enables customers to reduce the axial package by up to 11 mm in a synchronizer system, freeing up space for a reduction of transmission or for additional components.
HiPIMS	Highpower impulse magnetron sputtering is a method for physical vapor deposition of thin films, utilizing extremely high power densities in short pulses
INGENIA	This is a compact coating system of Oerlikon Balzers for small batch sizes and the ideal PVD coating system for frequently processed small quantities of tools per batch. With its short turnaround times it is perfect for running eight batches per day, which assures great flexibility in terms of processes, coatings and products being run during a day

INLENIA	A coating system of Oerlikon Balzers using the cost-efficient S3p technology to produce ultra-smooth surfaces that are resistant to adhesive and abrasive wear. It is perfectly suited for cutting tool applications with high demands on precision and surface quality such as microtools, taps and reamers
INLENIA pica	Is the compact and flexible coating system of Oerlikon Balzers for dedicated batches of the most precise tools or to enable a fast ramp up of a new product line with very short lead time.
INNOVENTA mega	The largest coating system within the Oerlikon Balzers PVD equipment portfolio and the ideal platform to process large size metal-forming tools, die casting moulds and saw blades with batch weights of up to 3000 kg (6614 lbs)
INNOVENTA kila	The coating system that can master both small and large quantities of tools and offers customers up to 55 % higher productivity, increased flexibility and more than 20 % higher loading capacity as compared to its predecessor system
InShape	A reconditioning solution for cemented carbide tools. The product offers smooth re-coating capability that does not damage the surface of the tool, while reducing the cost by 25 % over a tool's lifecycle
INUBIA	Oerlikon Balzers fully-integrated and automated solution for high-volume plastic metallisation providing ePD coatings in accordance with automotive specifications
PACVD	Plasma Assisted (Enhanced) Chemical Vapour Deposition is a deposition technology where the film forming materials are generated from gaseous precursors which are decomposed by means of an electrical discharge. PACVD is used to produce metal-free carbon coatings
primeGear	A customized and integrated service that improves the performance of cutting tool for production of gear components
PVD	Physical vapor deposition is a method used to deposit thin films onto various workpiece surfaces through condensation of the desired thin film material vapourized in vacuum
S3p	Scalable pulsed power plasma technology is Oerlikon's proprietary technology and the only one that combines the advantages of arc evaporation and sputtering (HiPIMS) to enable smooth and very high coating density and hardness as well as excellent adhesion to the underlying surfaces
SUMEBore	Oerlikon's thermal spray coating technology to protect cylinder bores and liner surfaces from wear and corrosion
SurfaceONE	Oerlikon's thermal spray coating system that incorporates three spray processes, a spray gun, part handling systems and powder feed technology into one compact machine

Manmade Fibers Segment

AIM4DTY	An automated system «trained» to use trend charts and respective error recognition systems
BCF	Bulked Continuous Filament is yarn used primarily for carpet production, usually polypropylene or polyester
DTY	Drawn Textured Yarn is a type of polyester filament yarn produced by processing partially oriented yarn (POY) through a texturing process. This process disperses, curls and entangles the filaments composing the POY yarn, which gives DTY a fluffy appearance and gives it the properties of both natural and synthetic fiber
FDY	Fully Drawn Yarn is a type of highly drawn polyester filament yarn that can be used to produce high strength fabrics and textiles. FDY is typically used to produce fabrics and textiles for high-end undergarments, high-end sportswear and home furnishings
Manmade fibers	Chemical and synthetic fibers
PA6, nylon	Also known as Nylon 6, PA6 has high tensile strength and elasticity and is very resistant to abrasion and chemicals. Its design flexibility and light weight make it extremely useful in a broad range of applications, from engineering plastic, food packaging and textiles, to car parts, electrical components and cable protection
POY	Partially oriented yarn is produced from the melting and extrusion (melt spinning) of the polyester chip or flake
STAPLE FORCE S 1100	A staple fiber system that has an advanced process control scheme to produce small batches of fibers and can be quickly reconfigured for polymer, dye and titer changes
VOCs	Volatile organic compounds that are chemicals released from a variety of products which turn to gases and can affect indoor air quality
WINGS	Winding INtegrated Godet Solution is a family of winder technology by Manmade Fibers Segment

This annual report is also available in German.
The English language version of Oerlikon's Annual Report is the binding version.

Disclaimer and cautionary statements

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