# ANNUAL REPORT 2018:

**Continued technology innovation extended VAT's market share lead in 2018 and will drive sustainable future growth, profitability and free cash flow generation.**

VAT is the world's leading producer of high-vacuum solutions for the near particle-free manufacturing of semiconductors, displays and other devices underlying global digitalization. In 2018, the company combined its deep customer relationships – based on continuous technology innovation – with a flexible global organization to expand its Number One market position. VAT also maintained high profitability and free cash flow generation in line with its financial goals even as demand softened in some semiconductor markets during the second half. Long-term growth drivers, such as the Internet of Things, cloud computing and artificial intelligence, remain highly positive, and VAT is best positioned to tap the significant growth opportunities that lie ahead.

PASSION. PRECISION. PURITY.

Our competitive advantages are our single focus on high-end vacuum valves; our clear No. 1 market position; our exposure to a broad range of growth drivers; technology leadership underlying long-standing customer relationships; highly-skilled people delivering customer value through a global manufacturing and service footprint; and financial strength, reflected in a record of profitable growth over the cycle and a commitment to an attractive dividend.

# Key figures

| In CHF million | 2018 | 2017 | Change |
|---|---|---|---|
| Order intake | 648.0 | 736.2 | –12.0% |
| Order backlog as of December 31 | 113.6 | 165.6 | –31.4% |
| Net sales | 698.1 | 692.4 | +0.8% |
| Gross profit | 419.5 | 431.9 | –2.9% |
| Gross profit margin | 60.1% | 62.4% | |
| EBITDA | 215.2 | 212.2 | +1.4% |
| EBITDA margin | 30.8% | 30.6% | |
| Adjusted EBITDA[1] | – | 215.1 | |
| Adjusted EBITDA margin | – | 31.1% | |
| EBIT | 179.7 | 178.7 | +0.5% |
| EBIT margin | 25.7% | 25.8% | |
| Net income | 135.7 | 115.7 | +17.3% |
| Net income margin | 19.4% | 16.7% | |
| Basic earnings per share (in CHF) | 4.53 | 3.86 | +17.2% |
| Diluted earnings per share (in CHF) | 4.52 | 3.86 | +17.2% |
| Cash flow from operating activities | 171.7 | 155.6 | +10.4% |
| Capex[2] | 48.0 | 47.6 | +0.8% |
| Capex margin | 6.9% | 6.9% | |
| Free cash flow[3] | 123.9 | 108.5 | +14.2% |
| Free cash flow margin | 17.7% | 15.7% | |
| Free cash flow conversion rate[4] | 57.5% | 51.1% | |
| Free cash flow to equity[5] | 119.6 | 104.4 | +14.5% |

| As of December 31<br>In CHF million | 2018 | 2017 | |
|---|---|---|---|
| Total assets | 968.2 | 991.1 | –2.3% |
| Total liabilities | 404.0 | 433.1 | –6.7% |
| Equity | 564.2 | 558.0 | +1.1% |
| Net debt | 147.6 | 143.7 | +2.7% |
| Net debt/EBITDA | 0.7 | 0.7 | 0.0% |
| Invested capital[6] | 358.3 | 327.0 | +9.6% |
| NOPAT[7] | 155.2 | 159.6 | –2.8% |
| Return on invested capital (ROIC) | 43.3% | 48.8% | |
| Dividend per share[8] | 4.00 | 4.00 | – |
| Payout ratio[9] | 100.4% | 115.0% | |
| Number of employees | 1,712 | 1,946 | –234 |

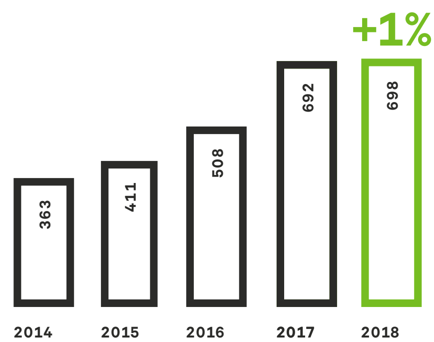
1 Adjusted EBITDA in 2017 excludes one-off items, see page 31.
2 Capex comprises purchases of property, plant and equipment, and intangible assets and proceeds from sale of property, plant and equipment.
3 Free cash flow is calculated as cash flow from operating activities minus cash flow from investing activities.
4 The free cash flow conversion rate is calculated as free cash flow as a percentage of EBITDA.
5 Free cash flow to equity is calculated as cash flow from operating activities less cash flow from investing activities less interest paid and the current portion of loan and borrowings due at the end of the period.
6 Invested capital is defined as total assets (excluding current income tax receivables, goodwill, acquired technology & customer relationships, brands & trademarks and deferred income taxes) less current liabilities (excluding loans & borrowings and current income tax liabilities) less non-current liabilities (excluding loans & borrowings and deferred income tax liabilities).
7 Net operating profit less adjusted taxes (NOPAT) is calculated as EBITDA minus depreciation and amortization (excluding amortization of acquired technology and customer relationships) plus finance income (including net foreign exchange gains/losses from financing activity and excluding other finance income) less taxes at the average Group rate of 17.6% (previous year 18.0%).
8 Proposal of the VAT Board of Directors to its shareholders at the AGM on May 16, 2019
9 Percentage of free cash flow to equity proposed to be paid out as dividend

## Net sales
in CHF million

# 698.1

2017 **692.4**

## Net sales development
in CHF million




## EBITDA
in CHF million

# 215.2

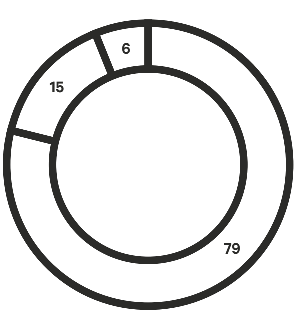
2017 **215.1** adjusted

## EBITDA margin
in %

# 30.8

2017 **31.1** adjusted

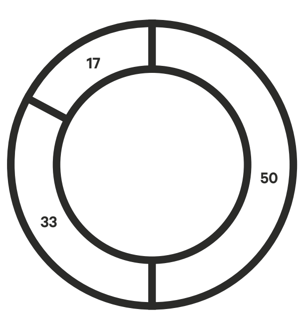
## Net sales by segment
in %




**79 VALVES**
**15 GLOBAL SERVICE**
**6 INDUSTRY**

2017
**80 VALVES**
**14 GLOBAL SERVICE**
**6 INDUSTRY**

## Net sales by region
in %




**50 ASIA**
**33 AMERICAS**
**17 EMEA**

2017
**51 ASIA**
**33 AMERICAS**
**16 EMEA**

## Free cash flow
in CHF million

# 123.9

2017 **108.5**

## Dividend per share*
in CHF

# 4.00

2017 **4.00**

* Proposal of the VAT Board of Directors to its shareholders at the AGM on May 16, 2019

# Dear Shareholders,

VAT's undisputed leadership in high-end vacuum valves makes it one of the most attractive players in the rapidly-developing markets that underpin the global digital revolution: the Internet of Things, cloud computing, smart personal devices, e-mobility and many other applications. VAT delivers the mission-critical vacuum valves needed to manufacture the semiconductors, displays and other technologies that are driving these megatrends. After several years of record-breaking market growth, demand slowed in the second half of 2018 as customers in parts of the semiconductor industry took a pause to digest the rapid capacity expansion of recent years. Global trade tensions, especially between the US and China, added further uncertainty to the market.

Nevertheless, VAT once again delivered a positive result in this dynamic, fast-changing market. We increased our Number One market share even further, which helped mitigate the slower market growth and allowed us to report another year of record net sales. Our profitability, as measured by our EBITDA margin, remained steady, as we forecast at the six-month mark last year. We increased our free cash flow generation despite ongoing investments in our facility in Malaysia. All of these factors allow us, in line with our commitment to sustainable value creation, to propose another attractive dividend of CHF 4.00 per share.

In my first letter as Chairman last year, I highlighted the quality of our people, a significant competitive advantage for VAT. Our 2018 performance is another tribute to their commitment to our goals of delivering the highest levels of customer satisfaction, driving technology innovation and creating a fast and flexible global organization. This included further significant improvements in the way we run the business, from order processing to product innovation, as well as the implementation of a temporary short-time work program by our production employees in Switzerland towards the end of the year. On behalf of the Board of Directors, I would like to thank all of our 1,700 employees for their extraordinary efforts.

Also, Mike Allison completed his first year as our CEO in 2018, successfully working with the senior management team, and with the active support of the Board of Directors, to take the right steps to improve our competitive position in this fast-changing business environment. He is being joined this year by a new CFO, Stephan Bergamin, whose broad experience in a variety of industries and expertise in the areas of cost management and business development will make him a key contributor to our future success.

Our Board of Directors welcomed two new members in 2018: VAT's former CEO Heinz Kundert, whose decades of experience in the semiconductor industry has proven critical to the company's history of profitable growth, and Libo Zhang, former CFO of the Borgward Group, who brings us both financial expertise and a deep knowledge of the Asia market, which will play a key role in our future success.

Looking ahead, we will continue to build on our competitive strengths: focusing on our core business of mission-critical high-end vacuum valves; building our technology leadership and long-term, trusted partnerships with customers; expanding our leading market position; tapping the diversity of growth drivers provided by megatrends like digitalization; developing our highly skilled workforce; and strengthening our best-in-class financial profile as a foundation for future growth.

In concrete terms, this means we will continue to invest in technology innovation, the life blood of our business. We aim to further increase our market share, for example, by broadening our service offerings to speed up service delivery and minimize downtime for our customers. We will invest more to grow our general vacuum business, where we can

“We are well on our way to creating the strong, flexible global organization needed to secure our long-term competitive success.”

**DR. MARTIN KOMISCHKE**
**CHAIRMAN OF THE BOARD OF DIRECTORS**

tap our proven expertise in high-end vacuum applications for the semiconductor and display industries to develop vacuum solutions and capture a greater share of wallet among pharmaceutical, industrial coatings, automotive and other industrial customers.

We intend to continue developing specific high-value applications to augment our valve technologies, such as precision actuating systems to move components through the high-vacuum manufacturing process. And, critically important, we will keep driving our efforts to build a stronger, faster and more nimble global organization across the entire value chain, with the goal of delivering total customer satisfaction.

Heading into 2019, I am confident that we will successfully navigate the current market uncertainty. We are in the best position to capture the opportunities for growth and value creation when demand recovers. We are the clear Number One in our market with the best technologies and strongest customer relationships. The digitalization trends that make this market so attractive will remain in place for years to come, and they can only be realized with the precision and purity of high-vacuum manufacturing environments.

We have an extraordinary team of committed employees and are well on our way to creating the strong, flexible global organization needed to secure our long-term competitive success. That gives us great confidence in our ability to continue our track record of value creation, and I look forward to a successful future together with all of our stakeholders.

Sincerely,

Martin Komischke

# CEO Interview

**What were the highlights of your first year as CEO?**
Our ability to successfully navigate the changing market situation was a key achievement. Although we had a strong first half with net sales up 18% – which helped us achieve another record for net sales in 2018 – the second half saw a significant demand slowdown. We needed to adjust quickly to keep costs proportional to the lower business activity while at the same time continuing to invest in innovation and capturing the available growth opportunities.

Thanks to the outstanding efforts of all of our people, we managed to expand our leading market share to 47% and land a record number of "specification wins" on new customer platforms which will support future growth. We maintained our EBITDA margin near 31% and delivered solid cash flow thanks to our focused working capital management. Through all of this, both the Board and the other members of the Group Executive Committee were extremely supportive as I took on this new role.

**Were you surprised by the market downturn?**
Yes, we were. We saw a remarkable two years of growth during 2016 and 2017 in the semiconductor market, driven by the rapid pace of digitalization, like data centers, the Internet of Things and e-mobility. This fueled enormous capital expenditures by semiconductor and display manufacturers, and our customers forecast this to continue into 2018 and then possibly moderate slightly during 2019. Looking back at 2018, I think we got the magnitude of the capital expenditures right as the overall semiconductor fab market grew around 16% but we underestimated the high level of inventory that our OEM customers had driven into the supply chain in the first half of 2018.

So when our customers started seeing things slowing down in Q3, they dropped their production plans very rapidly and this, coupled with the high inventory levels, meant a significantly weaker second half of the year for us. Thankfully we reacted very early to adapt to the declining sales and this allowed us to manage the year quite successfully.

**Is the market more cyclical than you had expected?**
The semiconductor market is still a cyclical market but much less than historical levels. There are many more demand drivers in today's market than there used to be, which has significantly reduced the amplitude of the cycles in the industry. Despite the slower growth in the second half of 2018, we are still at historically very high demand and investment levels. The world of cloud computing, device interconnectivity and the rapid growth in artificial intelligence requires new semiconductors designed to store and process unprecedented volumes of data, working at high speeds and consuming as little energy as possible. It also requires continuous innovation in high-vacuum solutions. We expect this to drive more stable growth in the industry for the foreseeable future.

We are also taking steps to make VAT less cyclical and have a very focused strategy to grow our General Vacuum and Service businesses and we expect significant growth from them in the next two to three years.

**Have international trade tensions played a role in the slowing demand?**
Most of our OEM customers are in South Korea, Japan and the US, so we aren't directly exposed to the China market. Nevertheless, China is an important end market for semiconductor and display equipment and trade uncertainties generally tend to delay investment decisions throughout the value chain, so we are looking forward to a resolution.

**How is VAT positioned to participate in the Made in China 2025 initiatives?**
VAT is the market leader today in China with strong market shares across all our sectors. We have very close cooperation with all the key OEMs and our

MICHAEL ALLISON, CEO

brand is well recognized in China. However, we continue to watch the development of local suppliers and we are constantly evaluating options to maintain and increase our competitiveness.

**When do you expect the market to recover?**
At the moment, our customers in the memory chip and display sectors remain cautious with their investment plans. We have some short-term imbalance of supply and demand which is likely to lead to a lower result in 2019 after three very strong years. But we expect the industry to be back to growth in late 2019 or 2020. The steps we have taken during this slowdown to make our operation more flexible will also help us to move quickly when the market recovers. Digitalization is a long-term demand driver and as the market leader in high-vacuum valve solutions, we are very well positioned to benefit from the return to growth.

**Has the softer market affected the competitive landscape?**
Our technology lead, deep long-term customer relationships and flexible global footprint are key competitive advantages in this kind of environment. On one hand, we were able to adjust our global value chain to remain cost competitive. At the same time, we captured almost 40 significant spec wins in our semiconductor, display, general vacuum and service businesses through highly focused growth initiatives that will further build our market share and support net sales going forward.

“Digitalization is a long-term demand driver and as the market leader in high-vacuum valve solutions, we are very well positioned to benefit from the return to growth.”

**What can you do to drive growth?**
One lever is market share. In displays, for example, there are major OEMs where we still have a small share of wallet. We have specific development projects running to grow that share and we achieved some first successes in 2018. Growth expectations are still strong in logic semiconductors, driven by ongoing node size reductions and innovations in chip architecture, 3D structures with a greater number of layers and new materials.

All these developments require extremely pure vacuum environments for manufacturing at the leading edge node scale of 7 nanometers. As the technology leader in valves, we are in an excellent position to benefit from this trend. In addition, we can do more to expand our service offering and in the area of general vacuum there is substantial growth potential we have not tapped yet.

There are also organizational levers for growth. We added new management expertise in our Global Service segment in 2018 and at the beginning of this year we established a new senior management focus on Strategy & Business Development with a new appointment as well. Furthermore, we combined the Semiconductors and the Modules business units in the Valves segment as of the beginning of 2019 to gain some scale economies and bring a tighter focus on the needs of our semiconductor customers. And in the area of innovation, we split our R&D efforts into a group developing core technologies over the long-term and another providing common engineering tools to streamline the development process.

But all these initiatives would be futile without our dedicated employees to execute them every day. To support them more effectively, we conducted a second employee engagement survey in 2018, aimed at improving the way we work together. To reflect the importance we are putting on people development, we also brought our Human Resources director into the Group Management Board. All these steps will enhance our growth potential.

**How do you aim to maintain profitability?**
A primary goal since the company went public in 2016 has been to create a scalable, cost-efficient and highly customer-oriented organization that can generate sustainable profitable growth. Those efforts continued last year. We further standardized internal processes in order handling and logistics and in engineering and product development, which will speed up time-to-market, reduce costs and support our quality initiatives. We are working more closely with suppliers to simplify and speed up our supply chain and to manage working capital more efficiently.

We also initiated company-wide cost savings projects, including a temporary flexible short-time work program implemented last October with the support of our production employees in Switzerland. This allowed us to keep our highly skilled and experienced employees through the slowdown so when the market recovers, our people will be ready to move quickly to capture the growth.

**What were VAT's most important technology innovations in 2018?**
Our end customers are developing new generations of digital devices that can store and process vast amounts of data quickly, in a small space and at low energy consumption. That requires new chip architectures, new stacking structures and new materials. For VAT, that means new high-vacuum manufacturing processes with new valve designs that provide an even cleaner process environment, capable of moving substrates through the fab faster and more reliably, and that are easier to service quickly to reduce downtime.

So we drive innovation along a number of vectors. One is the cleanliness of the products we deliver. Because they are being used in an ultra-clean environment, we have to ensure that they are manufactured, assembled and packaged with the absolute minimum amount of particle contamination. They also have to operate at extremely high levels of cleanliness, with as few particles as possible generated during opening and closing. That includes research into innovative materials for the contact surfaces during the sealing process.

To give you just a small sample of products launched in 2018, we qualified new zero-particle sealing valves for fabricating integrated circuits at 7 nanometers, supported by a newly-opened particle measurement laboratory in the US. We designed a side-by-side load-lock valve that will open up new opportunities in the wafer etching segment. A large OEM customer took delivery of a new multi-valve module that includes actuators and lifters needed to make high-end image sensors used, for example, in autonomous vehicles. And we continue to develop large transfer valves – some more than four

“Our global footprint is a competitive advantage that allows us to adjust capacity and costs quickly in response to changing markets.”

meters wide – to handle G10.5 LCD display substrates and large solar panels.

Overall, we run over 100 active engineering programs which demonstrate the extent to which VAT is investing in the future.

**Will you continue to invest in capacity expansion?**
Our expansions in Malaysia over the past two years are key to creating a flexible global footprint for our business so that we can deliver the right balance of cost performance and customer focus across all of our production facilities. We brought the Malaysia plant online as planned in 2018 and will continue to broaden its product scope, qualifying new products with our customers in the region, in line with our growth plans for the important Asia market. It’s a dynamic setup that allows us to adjust capacity and costs quickly in response to changing markets.

**How do you see the market developing beyond 2019?**
There is no end in sight to the demand for more and newer chips and displays as global digitalization accelerates, augmented by advances in the use of artificial intelligence, autonomous vehicles and 5G mobile telecommunications. Asia will continue to be a key market and it’s important that we are strongly represented there, close to our customers for both product development and service. Solar photovoltaic was a strong market in 2018 and the long-term outlook is positive in this sector as well, with new materials helping to improve energy conversion and driving the need for new valve solutions. Finally, there are a lot of untapped opportunities in broader industrial applications served by our general vacuum business as the need for high-precision manufacturing continues to expand. Our continuously growing installed base will create service opportunities not only in spare parts but also in retrofits and upgrades.

**How are you positioning VAT for this environment?**
One of our key competitive strengths has been our laser-sharp focus on our core vacuum valve business and being the undisputed technology leader in this industry. This will remain a top priority for us in 2019 and beyond. We will continue to invest in R&D, to deepen our collaboration with customers to ensure we can deliver the vacuum technology they need to create the next generations of semiconductors and displays.

At the same time, we’ll continue our efforts to expand the service and general vacuum businesses, which will help reduce volatility in sales, and look at capturing market share in areas where we have so far been underrepresented. We will continue to strengthen the organization enable this growth.

# VAT's evolution to a fast, flexible global innovator

Founded in 1965 in Switzerland, VAT was originally focused on vacuum valves for scientific research. In the 1980s, VAT entered the thin film market for industrial coatings and optics and established its COMVAT AG subsidiary to manufacture vacuum-sealing equipment. In 1988, VAT entered the semiconductor sector with its proprietary VATSEAL gate valve, laying the foundations for today's market leadership position.

As its product scope broadened, VAT expanded its business beyond Europe by establishing manufacturing and service operations in the US and Asia to better align its operations with those of its biggest customers. Supplementing this organic growth, VAT made some smaller acquisitions, including Sysmec in Romania in 1983. In 2012, VAT acquired the vacuum valves product line from Inficon AG, part of the ongoing consolidation in the vacuum valve market.

In 2012, VAT launched its largest organic growth initiative with a new Malaysian manufacturing center in Penang. The aim was to diversify the production footprint, be closer to large customers in Asia and strengthen its global value chain. In 2017 and 2018 a substantial expansion of the initial plant was carried out, including the addition of engineering and testing capabilities.

VAT Group was acquired from the founding family by the two private equity firms Capvis Equity Partners AG and Partners Group at the beginning of 2014 with the aim to take the company public through an Initial Public Offering (IPO) on the SIX Swiss Exchange. This step was completed in April 2016. VAT paid its first dividend as a public company of CHF 4.00 per share to shareholders in May, 2017 and again in May 2018. Capvis and Partners Group sold their shares in VAT in several tranches between August 2017 and January 2018.

Today, VAT has a fast and flexible global value chain that allows the company to bring technology innovations to market quickly and to adjust production to rapidly-changing market conditions while maintaining industry-leading quality and on-time delivery.

## Milestones

- **1965** Founded in Flawil, Switzerland
- **1983** Established COMVAT AG
- **1988** Entry into the semiconductor industry
- **2008** Acquisition of Sysmec, Romania
- **2009** Gate manufacturing in Taiwan
- **2012** Manufacturing center in Malaysia; Acquisition of vacuum valves product line from Inficon AG
- **2014** Acquisition of VAT by Partners Group and Capvis
- **2015** Ramp-up of manufacturing center in Malaysia
- **2016** IPO at Six Swiss Exchange
- **2017** Substantial capacity expansions
- **2018** Record net sales and EBITDA

# Innovation drives sustainable competitive success

Smart phones, cloud computing, device interconnectivity and the Internet of Things, artificial intelligence: none of these world-changing developments would be possible without the ultra-clean manufacturing processes enabled by high-performance vacuum valves.

VAT is the world leader in vacuum valves used to fabricate semiconductors, high-resolution displays, photovoltaic solar panels and a variety of other high-precision products. High-purity vacuums are essential to the manufacture of these devices because the latest semiconductors feature transistors as small as 10 nanometers (nm) or even less, the size of a virus.

The process chambers in which such devices are fabricated must therefore be as free as possible from any kind of particle contamination. Cleanliness is measured in parts per trillion, equivalent to dissolving a sugar cube in the world's largest supertankers. Even a stray molecule can ruin the chip fabrication process.

VAT valves are the key to that process purity. They provide the tight seal that allows high vacuums to be created (isolation valves). They open and close to permit the particle-free transfer of substrates, like silicon wafers, from one process chamber to another (transfer valves). They allow the injection of sometimes corrosive gases into a process chamber while maintaining a reliable vacuum seal (control valves). Furthermore, they have to be fast and reliable over tens of thousands of operations. They must be easy to replace and maintain in order to reduce production downtime.

**The world's most demanding customers**
Technology innovation is fundamental to our business. Our ability to continuously develop new products that fully meet the needs of some of the world's most demanding customers in a rapidly changing market is what distinguishes us from our competition. It has propelled us to clear market leadership. It underpins our deep customer relationships and attracts the best talents. It puts us in a strong position to grow profitably over the long term and consistently deliver more value to all of our stakeholders.

It starts with the needs of our customers. We sell to the manufacturers of specialized equipment used in various semiconductor and digital display fabrication processes, such as etching, deposition, patterning, coating and packaging. These original equipment manufacturers (OEMs) integrate our valve solutions into larger systems that they in turn sell to the manufacturers of semiconductors, displays and other digital devices. We also sell to the solar photovoltaic industry, where vacuum valves are used in the manufacture of high-efficiency solar panels, and to general industry where precision manufacturing at a microscopic scale is becoming more widespread. Finally, we supply universities and research institutes with the advanced vacuum valves they need for their pioneering work, often in the area of high-energy particle physics.

**VAT in a long-term growth market**

According to VLSI, VAT's total addressable market across all its businesses in 2018 was approximately USD 2.6 billion[1] of which semiconductors make up some USD 1.4 billion, displays and solar approximately USD 330 million, and industry and research at approximately USD 570 million. The services market accounts for another approximately USD 245 million. VAT's total addressable market is expected to grow at a compound annual growth rate (CAGR) of approximately 3 percent between 2018 and 2023.

1 VLSI Research, February 2019 preliminary full-year 2018

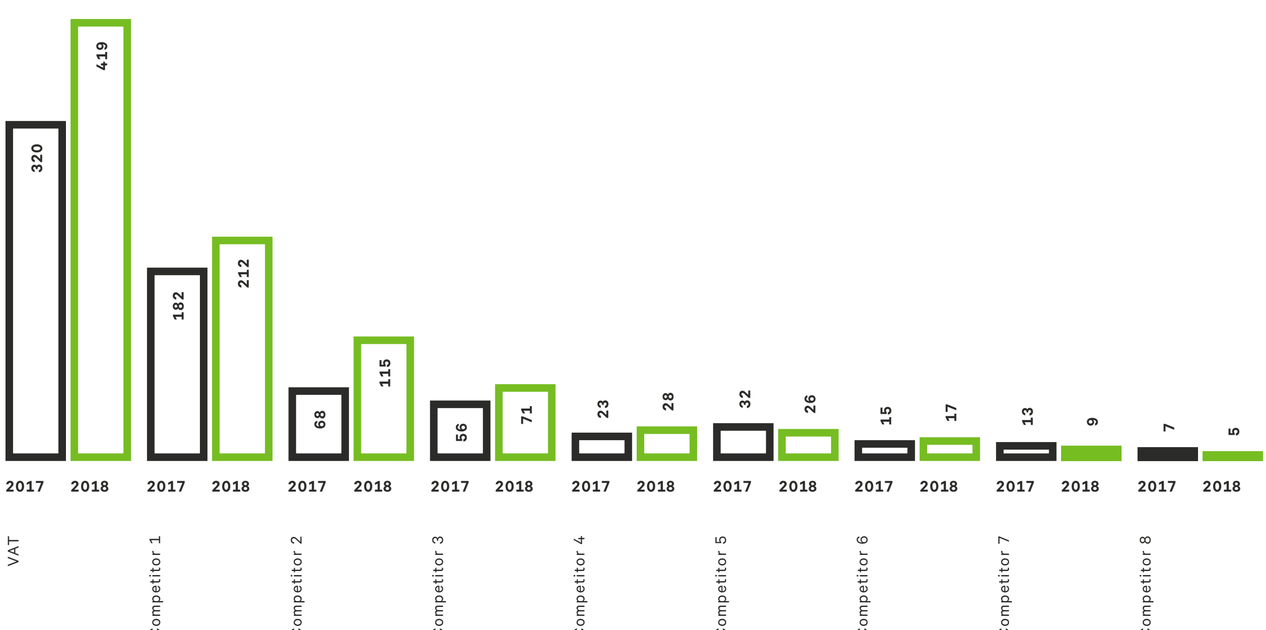
### Market size

This market is being driven by the rapid advances in digitalization: the ubiquity of smart portable digital devices, the mass data storage and processing of cloud computing, and the interconnection of industrial sensors and equipment underlying the Internet of Things (IoT). These developments are generating vast amounts of data – trillions of gigabytes per day – that require storage and processing. This trend will only accelerate with new technologies in artificial intelligence, autonomous vehicles and the potential for even greater device interconnectivity promised by the next generate of 5G mobile telecommunications.

### Continuous design innovation

Managing this avalanche of data, both storage and processing, requires not only a huge volume of semiconductors and displays, but continuous design innovation. Chip manufacturers are continuously striving to pack more storage and processing power into smaller spaces using less energy. These trends

**Patent Asset Index™ Score**




Source: Swiss Federal Institute of Intellectual Property, January 2019 mean constantly changing chip architectures, for example moving from flat single-layer semiconductors to chips with multiple layers, as well as the use of new materials to improve chip performance. New display technologies, including ultra-thin and flexible organic light-emitting diodes (OLED) and much larger displays, require new substrate layers and materials. In the solar photovoltaic sector, new technologies are improving the efficiency with which sunlight is converted into electricity.

With each innovation in the manufacture of digital devices, our customers need new vacuum solutions: cleaner, more durable, more flexible, more reliable. And because digital technology is moving so fast, success comes only to those with the deepest understanding of the technology, markets and customers, and capable of developing the right products at the right time, whether that's in two years or in two months.

**Keeping pace**

This is where VAT has a clear competitive advantage. We drive technology innovation along a number of vectors, some of them based on the development of long-term product platforms that can serve our customers for a number of years, and others based on more immediate needs.

One of these vectors is product purity. Our customers trust us to deliver valves that are absolutely clean. Since they are being built into the purest vacuum chambers, they must be delivered without any kind of surface contamination. That means meticulous attention to detail in the manufacturing, machining, assembly and packaging processes, including the use of innovative packaging materials.

Next is particle-free operation. To achieve this, VAT has developed specialized elastomer materials used for sealing surfaces. Unlike other materials, these emit close to zero particles when the surfaces meet during opening and closing operations. We also develop our own actuating systems to open and close the vacuum seals with enough force to secure the vacuum but not so much that excess particles are generated.

**Spec wins help secure future growth**

All our R&D efforts are aimed at helping our customers develop the next generation of tools and machines for their customers. In practice, this means working closely with our customers at the early stages of product development to create product specifications that meet or exceed their requirements. When the customer accepts these specifications and agrees to use VAT as their equipment supplier for future products, we have achieved what we call a spec win. Spec wins are vital to our long-term success, not only by securing future sales but also by deepening our customer relationships even further.

In 2018, we recorded close to 40 spec wins for products such as new sealing valves for ultra-clean 7-nm process environments, modules used to make the latest generation of image sensors used in AI systems, and transfer valves for large LCD displays and solar panels. Our current engineering pipeline of active customer projects is also at an all-time high.

Another focus is on weight and strength of the valves. VAT has pioneered the design of lightweight valves that allow easier assembly in a smaller space, along with enhanced service and maintenance capability, but that are also able to sustain the enormous forces exerted on them by the differences in pressure between vacuum process chambers. This can result in a force equivalent to 500 kilograms being applied to a vacuum seal.

We also have long-running research projects into manufacturing methods to make sure we maintain our leading capabilities to produce our valves at the right quality, on time and at a competitive cost. This includes working with our key suppliers to develop a fast, flexible and top-quality supply chain.

Finally, we work closely with our customers on shorter-term product and module customization projects that involve incremental improvements to valve design. These might include small adjustments to the physical dimensions of a valve to reduce the overall footprint of a process chamber, or the addition of equipment such as actuators or pressure sensors. This ability to respond quickly to our customers with high-quality and cost-competitive solutions has been key to our ability to steadily increase market share.

**Pioneering R&D**

Much of our expertise is grounded in the pioneering work we have done at universities and R&D institutes. Most of the world's particle accelerators, such as the CERN facility in Geneva, are equipped with VAT valves. We have also been selected as the exclusive valve supplier for the international ITER project to demonstrate clean energy generation through nuclear fusion by 2025. Projects like CERN and ITER are exploring novel fundamental applications and require valves with completely new performance levels. We use critical experience gathered in this most demanding of vacuum applications to drive significant innovation for our customers.

Our commitment to innovation is also reflected in our investment in research and development (R&D), where we spent approximately 4.9% percent of revenues – or CHF 34.1 million – in 2018. About 20 percent of our total workforce is working in innovation and we employ more than 150 R&D engineers and scientists worldwide. In 2018 we opened a particle measurement laboratory in San Jose, in the US, to qualify our future high-end products for 10 nm processes and even smaller. We also protect our intellectual property through the industry's largest portfolio of patents. In 2018, VAT once again ranked at the top of the Patent Asset Index™, which measures the total competitive impact of a company's patent portfolio using criteria such as portfolio size, technology relevance and geographic coverage. VAT scored almost twice as many points as its nearest competitor and has steadily improved its competitive position in each of the past five years.

Maintaining our technology leadership also requires a focused and adaptable organization that is both highly-tuned to the needs of our customers as well as capable of continuous process improvement to ensure that we are able to deliver on time at the right quality. In 2018, we realigned our R&D organization with a clearer focus on breakthrough innovations with high value for VAT and its customers over the long term, while still securing near-term product development in the business units. A central engineering unit will also provide common processes, infrastructure and tools across the businesses to make product development faster, more flexible and more cost effective.

# Our competitive strengths moving forward

VAT's performance since it went public in 2016 – steady growth, expanding market share, high profitability and robust free cash flow generation – has demonstrated the success of its strategy. Even as demand shifted quickly during 2018, from a buoyant first half to a soft second half, we were able to adjust quickly to preserve growth, profitability and cash flow while continuing to build market share. The foundation of this success lies in our clear competitive advantages:

**Single focus on mission-critical vacuum valves**
VAT's focus is vacuum-sealing technology. We know more about this technology than anyone else in the industry. That makes us an indispensable partner for our customers who require maximum uptime for their highly capital-intensive manufacturing processes.

**Deep customer relationships built on technology leadership**
We have decades of experience delivering to one of the world's most demanding markets. By integrating us into their long-term product development plans, our customers demonstrate they trust us to provide them with the advanced technology needed to address this rapidly changing market.

**Undisputed No. 1 market position**
VAT is the clear market leader in high-end vacuum valves. According to market research firm VLSI Research, our market share in 2018 was 49 percent, up from 34 percent 4 years earlier. According to VLSI, VAT's market share is about 8 times higher than our next-biggest competitor, with more than one million valves in operation.

**Multidimensional growth**
VAT benefits from the growing market for semiconductors and high-performance displays driven by digitalization, along with the increasing complexity of the products manufactured under vacuum, which requires many more process steps and more innovative vacuum valves. The ongoing consolidation in the semiconductor industry has also led to more stable and predictable capital investments by our customers. Together, these trends have reduced overall demand volatility compared to historical trends, supporting more consistent returns over the economic cycle.

**Proven people**
Our international and diverse management team has unprecedented experience in our core markets. We have more than 1,700 highly skilled employees with industry-leading experience in engineering, electronics, physics, chemistry and material science, supported by ongoing training programs and a rigorous program of quality certification.

**Financial strength**
Our strong financial profile is characterized by high profitability and consistent cash flow generation across economic cycles. We have the financial flexibility to successfully support the business across the business cycle. We have maintained our EBITDA through the softer market in the second half of 2018 through ongoing operational and cost improvements, including the temporary short-time work program for production employees introduced at the end of 2018. Our cash-generative business model allows us to quickly pay down debt without affecting the business while supporting our attractive dividend policy.

# Global footprint – flexible setup close to customers


**Flexible global footprint**

With the successful production launch at our new facility in Panang, Malaysia, in 2018, VAT took a key step towards its goal of creating a scalable, cost-efficient and highly customer-oriented organization that can generate sustainable profitable growth. We now have a truly global footprint in place, with our primary production facility for the full range of valves in Haag, Switzerland, as well as Sysmec in Arad, Romania, for precision machining of components and assemblies. In addition, we have local service operations in all of our major markets and we operate an engineering facility and particle measurement lab in the US.

This global network brings us closer to our customers, provides us with greater flexibility in supply, attracts talented people and allows us to better balance capacity and cost across a more geographically diverse production platform.

# Building a sustainability culture

Since its establishment in 1965, VAT has concentrated exclusively on vacuum valve technology to become the world's leading partner to customers in this field. Various stakeholders have accompanied and supported VAT on its journey to the top – employees, customers, suppliers, the communities in which it operates and, since the successful offering of VAT shares on the SIX Swiss Exchange, its more than 15,000 shareholders.

VAT's executive management team and Board of Directors recognize the valuable contributions each of these stakeholders has made to the success of the company. They also recognize the importance of fostering continuous dialog with stakeholders on issues that are fundamental to the long-term future of the company.

One such issue is sustainability, which VAT sees as the creation of long-term stakeholder value by implementing a business strategy based not only on the economic dimensions of doing business, but also on the social and environmental dimensions. VAT's business strategy therefore is intended to foster a long-term outlook based on transparent communications and dialog with all stakeholders.

**Economic sustainability**
VAT aims for economic sustainability with its strategy of long-term profitable growth and value creation. After all, business success is the necessary foundation that enables a company to deliver on its commitments to social and environmental sustainability. In a virtuous circle, success in the areas of social and environmental sustainability also enhances a company's business success.

Success can be measured in many ways. For example, VAT strives to generate an attractive return on invested capital and thus enable long-term capital appreciation. Its approach is deliberately geared to the long term rather than maximizing the share price in the short term. This means investing a large portion of earnings into areas such as research and product innovation, employee training and development, production capacity and operational excellence.

One yardstick of a company's sustainability is the quality of its products. VAT's vacuum valves have been on the market for more than 50 years in one of the most demanding markets in the world. With a clear No. 1 market share, VAT valves have earned their reputation as the highest quality products available. Supporting this achievement is an industry-leading level of R&D investments along with a record number of patents to protect the company's innovation lifeblood (see also page 10).

In addition, VAT manufactures its vacuum valves in line with a zero-defect approach revolving around high-precision manufacturing processes, the commitment of employees to take personal responsibility for quality, and close collaboration along the entire value chain, from suppliers to customers. The company also implements a comprehensive quality management system based on a continual improvement process to ensure its products continue to meet all of its customers' requirements.

**Social sustainability**
The social dimension is reflected in part through VAT's presence and activities in the communities where it operates. As an employer to around 1,000[1] people in Haag, Switzerland, VAT contributes significantly to the economic prosperity of the surrounding region. In 2016 and 2017, VAT expanded its production facility in Penang, Malaysia, almost fourfold with an investment of around CHF 40 million. That expansion was successfully completed in 2018 and the plant currently employs around 270 people, double the level of 2016, and further jobs additions are planned going forward. Many of those jobs require significant technical training and

1 Average number of full-time employees from 2016 to 2018

knowledge transfer, as products manufactured in Penang feature exactly the same quality as those leaving the factory in Switzerland, where 25% of employees have advanced technical qualifications.

In addition to the direct economic benefits to the local region in Malaysia, the new plant is driving the development of a regional supplier base for both components and services in order to better support the company's important customers in Asia. It provides the additional benefit of shortening delivery distances and thus reducing the associated emissions.

An additional aspect of social sustainability is the approach VAT takes to developing its people. VAT sees itself as a responsible and far-sighted employer that not only provides jobs, but also offers career development opportunities through various training and management development programs. The company also strives to promote open and transparent communication among production employees, supervisors and managers at all levels.

To support this effort, in 2017 VAT commissioned an independent research institute to conduct an annual survey of staff satisfaction. The survey provides a clear picture of the areas where employees are satisfied and where they see room for improvement. By systematically conducting this survey on a regular basis, VAT hopes to create a more rewarding and motivating work environment for its employees, and to become an even more attractive employer. In 2018, the response rate was a 81%, an increase of around 5 percentage points over the first survey; there was also a slight improvement in the overall results. The focus of the program in the beginning of 2019 is to develop and implement improvement initiatives based on the input received through the survey.

**Environmental sustainability**

VAT's endeavors in the environmental dimension of sustainability consist of comprehensive efforts to conserve and protect resources, minimize emissions, and improve energy efficiency. VAT is always open to innovative technological approaches, promoting their development along the entire value chain from procurement and production to logistics and delivery (see also "Environmentally responsible packaging" on page 18).

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## Long-term investment in innovation
in CHF per year

# >30 m

On the procurement side, VAT complies with the Responsible Business Alliance (RBA) code of conduct, which contains standards on working conditions in the supply chain for electronics and associated industries. In addition, VAT has launched various green procurement initiatives of its own, documenting how VAT and its production facilities meet their responsibility to the environment and the expectations of stakeholders.

VAT sees sustainability not just in terms of reducing the negative impact of its business activities but also in terms of the sustainability benefits from the use of its products. For example, VAT valves are critically important to the high-vacuum processes needed to manufacture the latest generations of extremely energy-efficient semiconductors and displays. That's because these devices often require the assembly of nanometer-sized components or the use of new materials that can only take place in the purest manufacturing vacuums possible. In this way, VAT's products indirectly contribute to more efficient use of energy resources. VAT valves are also used to manufacture high-efficiency solar photovoltaic cells, with around 6% of VAT's revenues in 2018 generated from sales to the solar power sector. The company has also been selected as the exclusive valve supplier for the international ITER project to demonstrate clean energy generation through nuclear fusion by 2025.

Looking ahead, VAT is determined to implement a business strategy based on sustainability principles, in collaboration and dialog with its many stakeholders. This includes the creation of a sustainability culture that reinforces the company's general strategic approach as well as guides the attitudes and behaviors of all employees on a day-to-day basis. VAT believes this approach is fundamental to the creation of long-term value for all stakeholders.

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## Share of VAT sales to solar sector
in %

# 6

# Environmentally responsible packaging

The move towards more eco-friendly packaging is a key way for companies to reduce their impact on the environment while improving overall efficiency and quality.

In 2018, VAT launched an initiative to make its packaging more environmentally sustainable and its packaging processes less wasteful. With thousands of products shipped on a daily basis, the potential impact is significant. The company aims to use only environmentally friendly packaging materials by 2020.

Supported by investments in new technology, this effort will begin with the reduction of hard-foam fillings traditionally used to protect sensitive high-precision equipment. In 2019, VAT plans to roll out at production sites in both Switzerland and Malaysia a standardized, simplified and highly automated packaging process. Using the latest horizontal wrapping technology, the project will reduce the volume of packaging material without compromising on packaging security and quality.

**Principal benefit**

- Less packing material, especially hard-foam fillings
- Fewer packaging steps, leading to higher energy efficiency and faster delivery
- Standardized process resulting in less waste material
- Smaller, more efficient packaging volumes to reduce transport footprint
- Standardized packing materials with improved environmental characteristics, such as reusability, recyclability, etc.
- Consistent and higher packaging quality to maintain VAT’s reputation for top quality

# MAPS:

**VAT is the world's No. 1 producer of high-precision vacuum valves that enable global digitalization.**

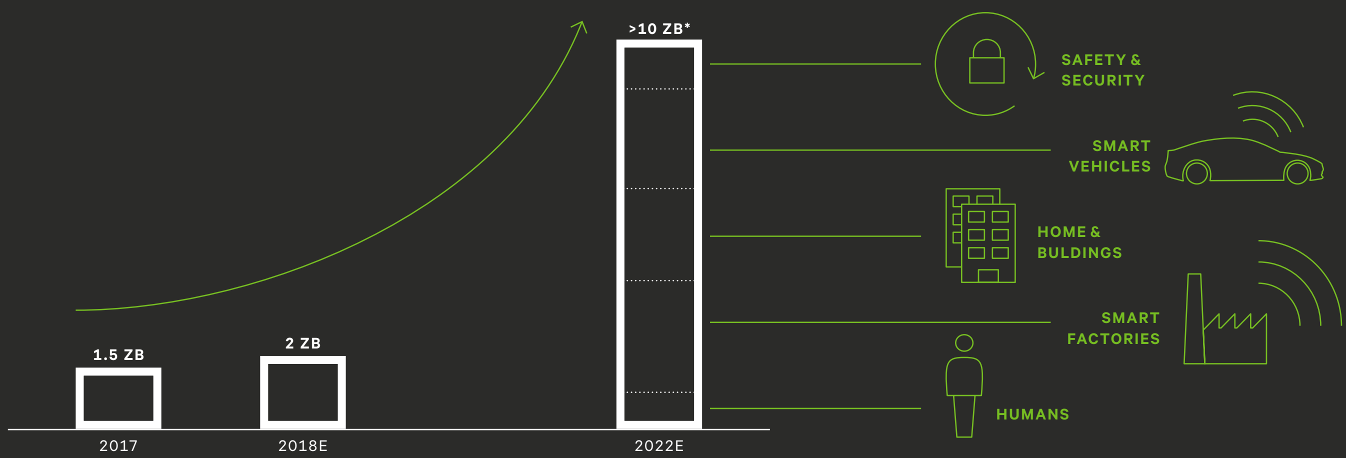
The digital revolution continues to accelerate rapidly. Increasingly vast amounts of data need to be stored, analyzed and displayed in more and more digital devices. In the following pages, we illustrate some of these future trends and how VAT's commitment to innovation will help make them a reality.

# DIGITALIZATION DRIVES GROWTH

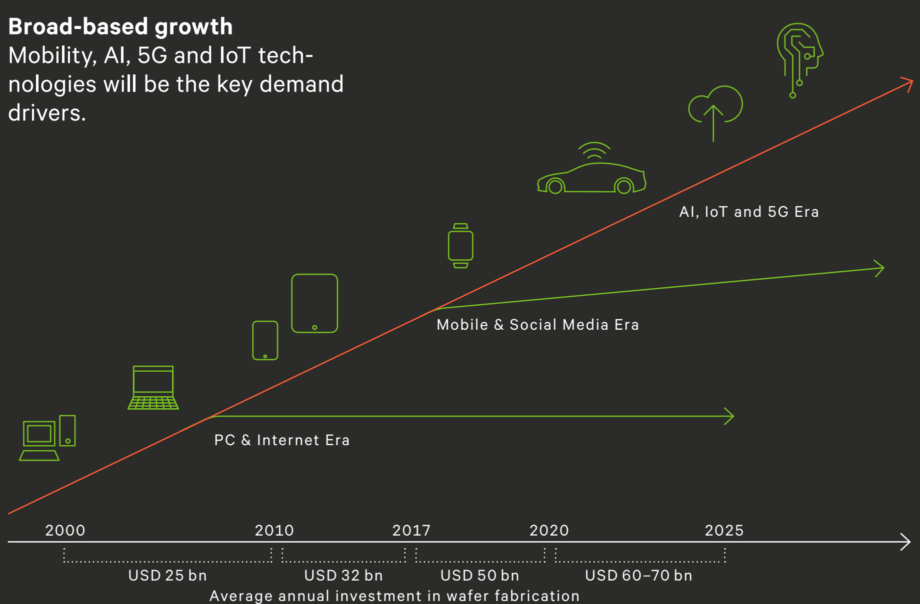
New technologies require huge data storage and processing power, meaning new chip designs and innovative vacuum valve solutions.

**Global data generation projected to grow 5 x by 2022**

*1 Zettabyte = 1 trillion Gigabytes




**Broad-based growth**
Mobility, AI, 5G and IoT technologies will be the key demand drivers.

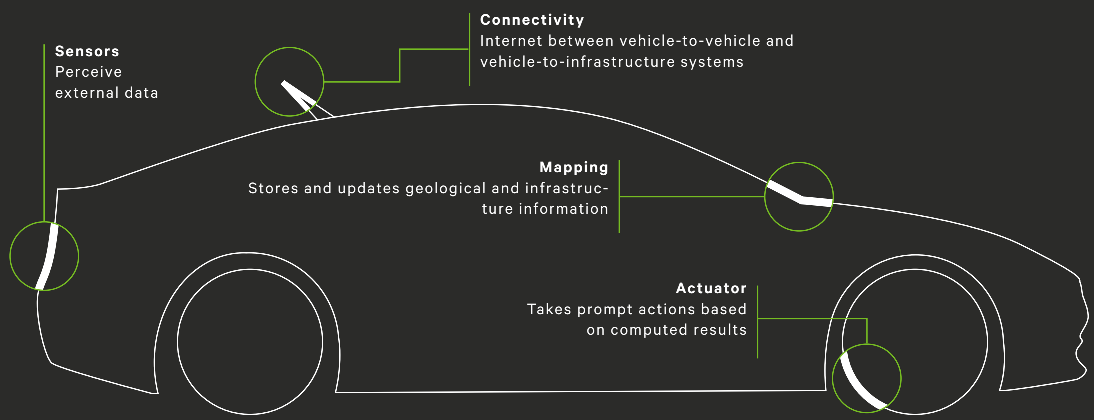



VAT vacuum innovations will be key to the next era of digitalization.

Source: 1 McKinsey, Advanced driver-assistance systems: Challenges and opportunities ahead, Feb. 2016; 2 veritone.com/insights/ai-chip-demand-boots-semiconductor-outlook, Nov. 2017; 3 Semiengineering.com, Nov 2018; 4 Applied Materials, Sept. 2018

## AUTONOMOUS DRIVING

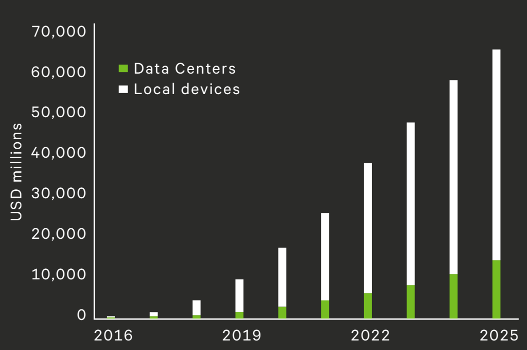
**Data-driven cars**
New semiconductors needed for cameras, radars and sensors to give self-driving cars the ability to see and to decide what the vehicle should do.[1]



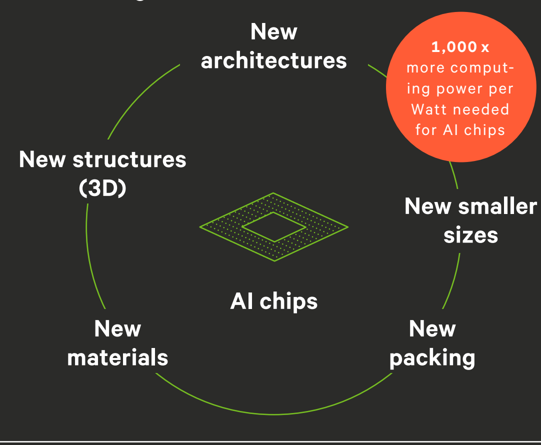

## ARTIFICIAL INTELLIGENCE

**Explosion in smart devices**
More AI chips will be needed in phones, drones, smart speakers, virtual reality headsets, etc.[2]

**Deep learning chipset revenue by market sector (forecast)**[3]

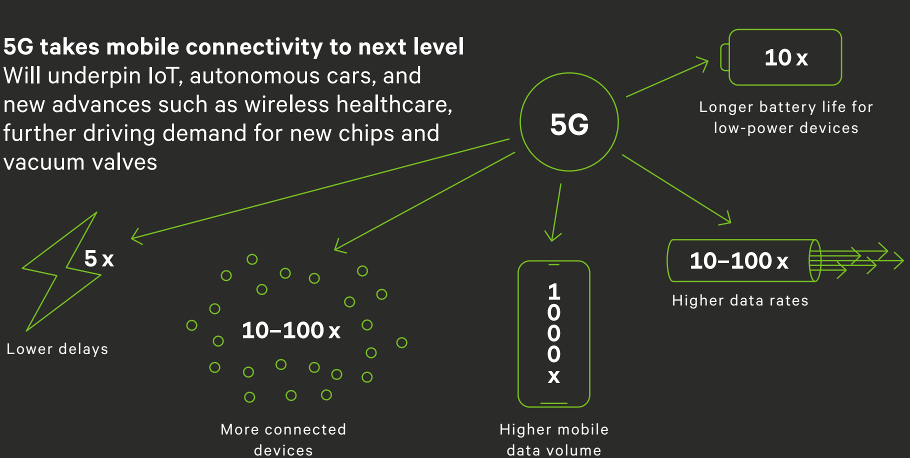



**AI next-generation semiconductors will drive valve growth**[4]

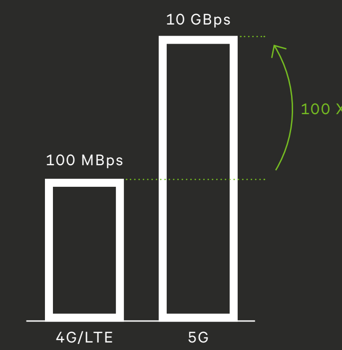



## 5G MOBILE COMMUNICATIONS

**5G takes mobile connectivity to next level**
Will underpin IoT, autonomous cars, and new advances such as wireless healthcare, further driving demand for new chips and vacuum valves



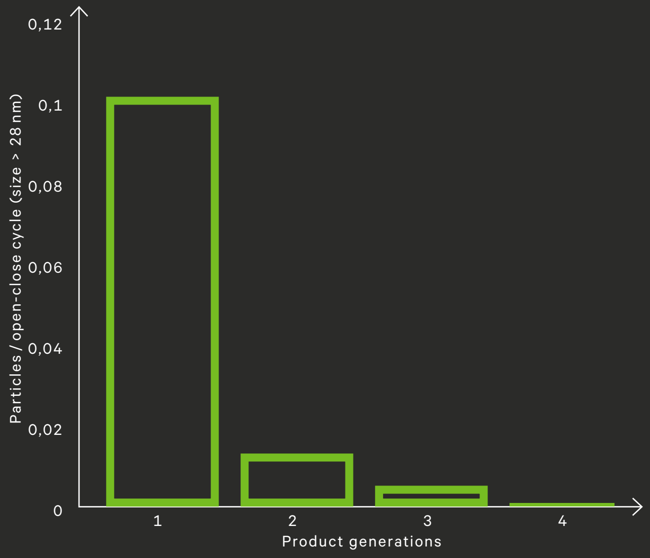

**A network quantum leap**
Peak download speeds
($Log_{10}$ scale)



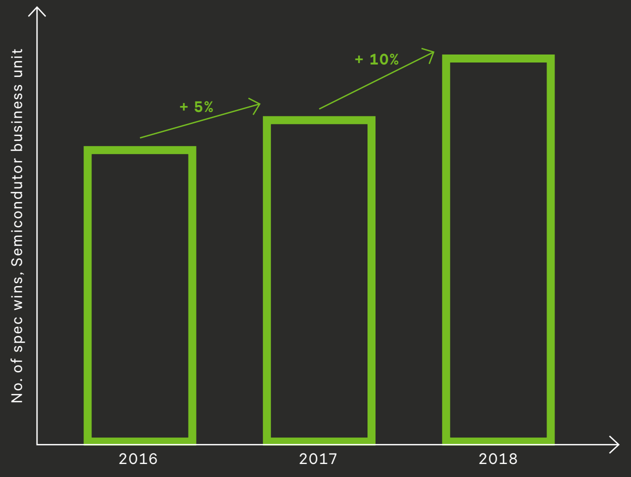
# INNOVATION IS KEY TO SUCCESS

High-purity vacuums are critical in the manufacture of digital devices with transistors smaller than 10 nanometers (nm) – the size of a virus. Cleanliness is measured in parts per trillion, equivalent to dissolving a sugar cube in the world's largest supertanker. To meet that challenge, our valves must feature particle-free and low-shock operation, areas where VAT has made significant progress in recent years.

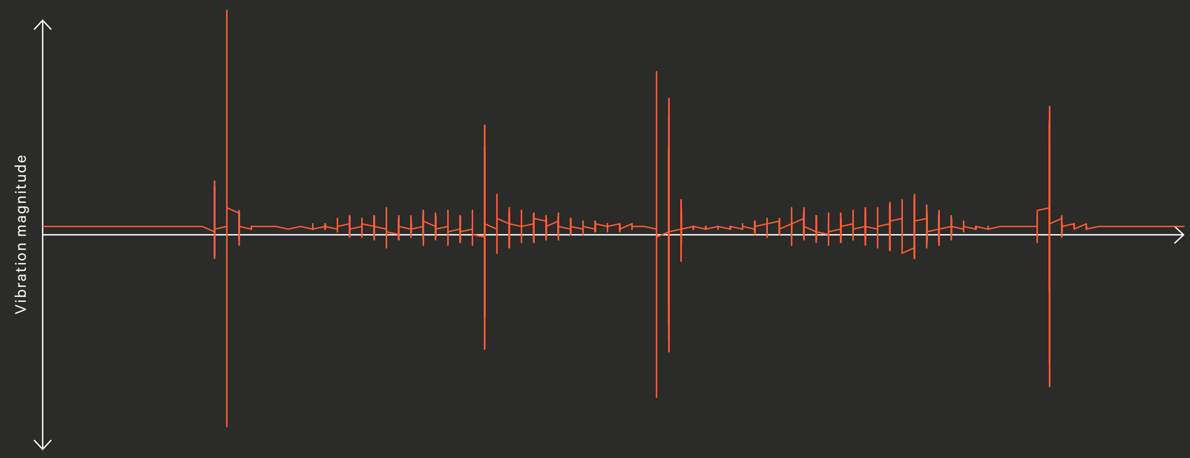
**Particle-free operation**
VAT's investment in particle research and measurement has resulted in virtually particle-free vacuum valve technology.




**Spec wins support future growth**
VAT works closely with customers to create specifications for future innovations. When the customer accepts these specifications, we have a "spec win" that secures future sales.




**Low-shock operation**
Lower shock levels on open and close operations reduce particle generation and improve valve reliability.



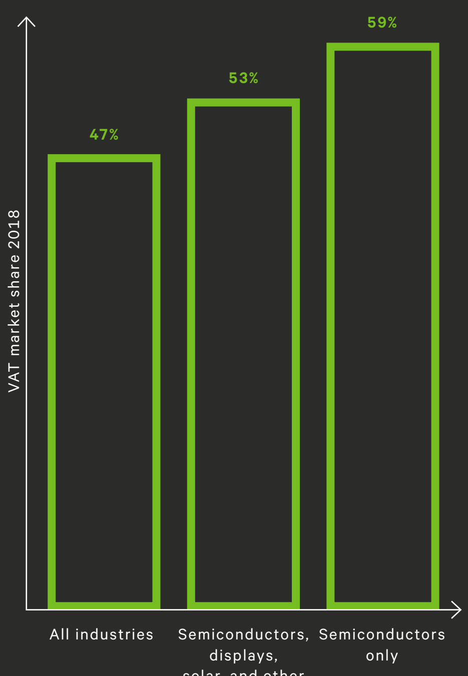
**VAT's core research areas**
VAT drives long-term research in key technology areas to ensure that we can deliver breakthrough innovations when our customers need them, and to support our standard valve product platform. At the same time, we create customized valves and modules with a shorter time horizon to meet specific, more immediate customer needs.


Our ability to continuously develop new products that meet the needs of the world's most demanding customers in a fast-changing market is what distinguishes us from the competition.

# NO. 1 TECHNOLOGY AND MARKET SHARE

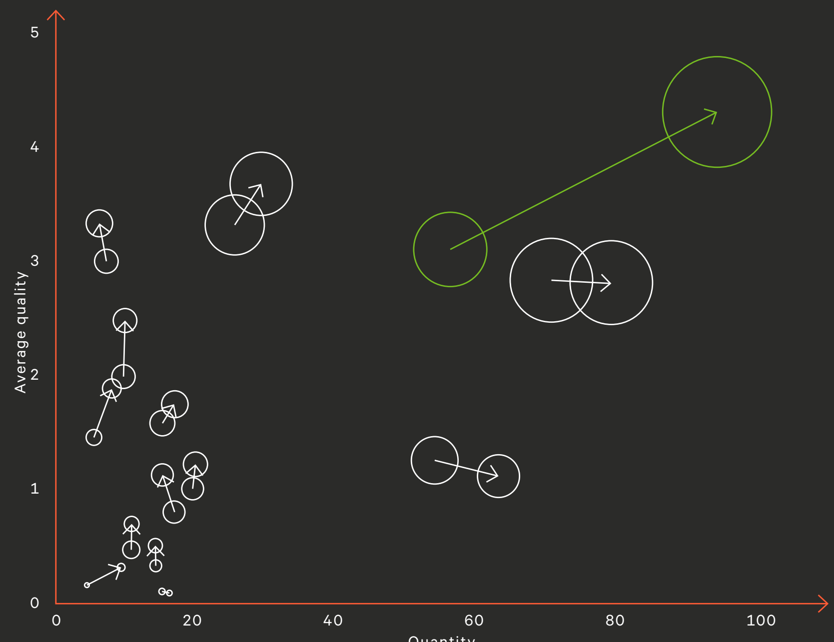
Semiconductor manufacturers are among the world's most technologically demanding customers. The tiniest contamination, measured in parts per trillion, can ruin the fabrication process. VAT valves have earned an unrivaled reputation for purity and precision over decades of experience in this most challenging industry.

**More demanding technology = higher market share**
VAT 2018 market share by customer industry[1]




**VAT has steadily improved its patent position vs competition**
Development from 2013–2018

**Patent quality and quantity**
VAT
Competitors

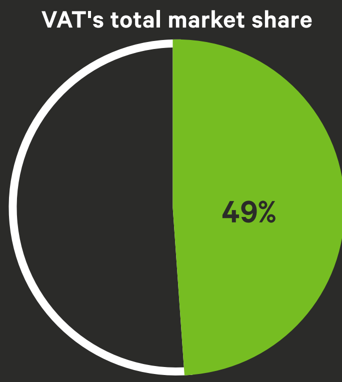


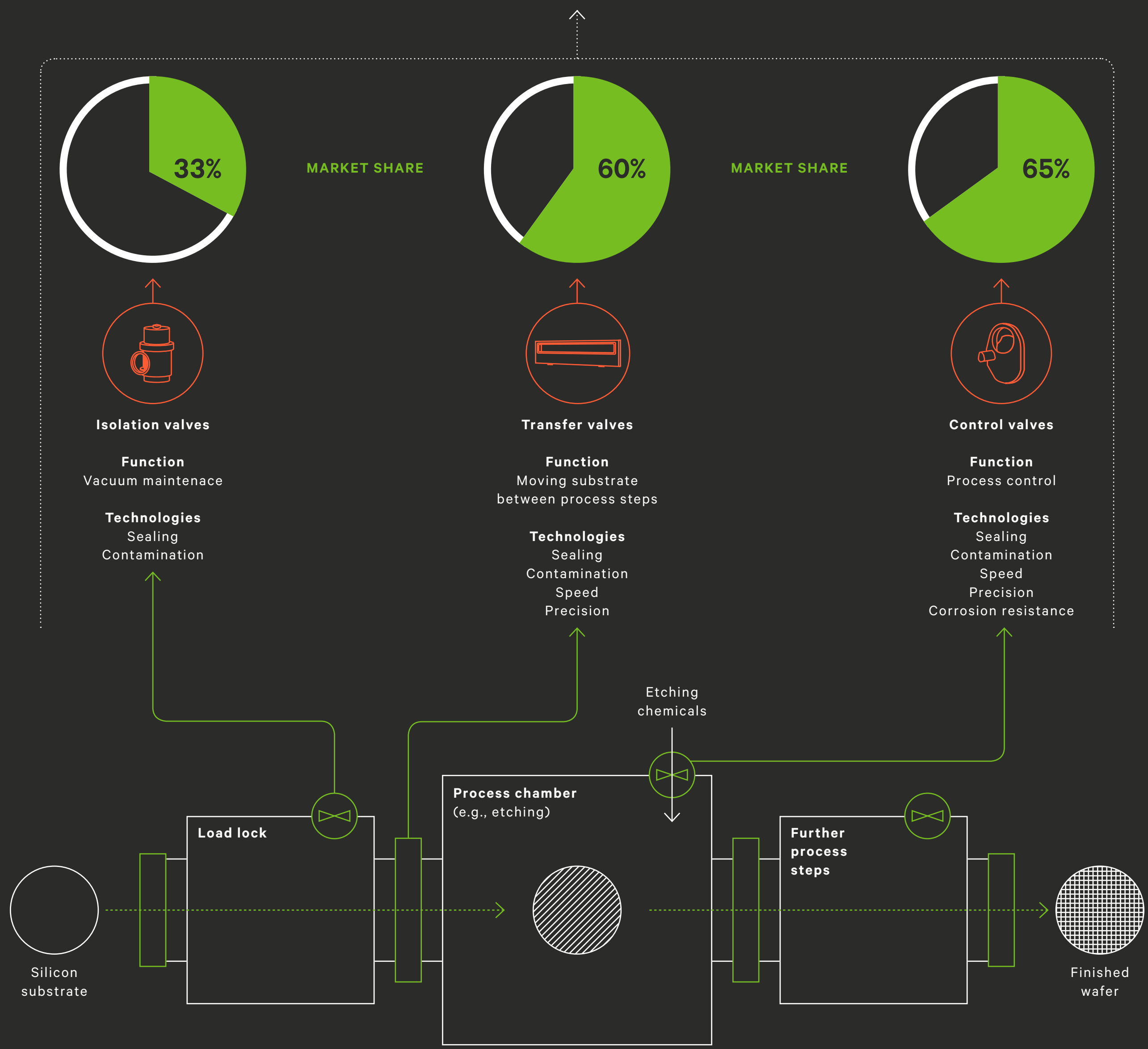

Our track record of innovation is key to our leading market share and the depth of our customer relationships. It's a significant competitive advantage.

Source: 1 VLSI Research

## LEADING MARKET SHARE ACROSS THE PORTFOLIO

VAT manufactures more than 10,000 standard and customized vacuum valves in three broad categories: isolation valves to seal high-vacuum process chambers; transfer valves to move substrates between process chambers; and control valves to regulate the flow of gases into the vacuum. VAT has the leading market share in each of these applications.



# DYNAMIC GLOBAL FOOTPRINT

VAT is creating a scalable, cost-efficient and highly customer-oriented organization. We are close to our customers in all major markets, benefiting from scale economies through our global supply chain, and able to adjust capacity quickly in a fast-changing environment.

**VAT sales by region**

**Share total 2018 sales**

**Americas**

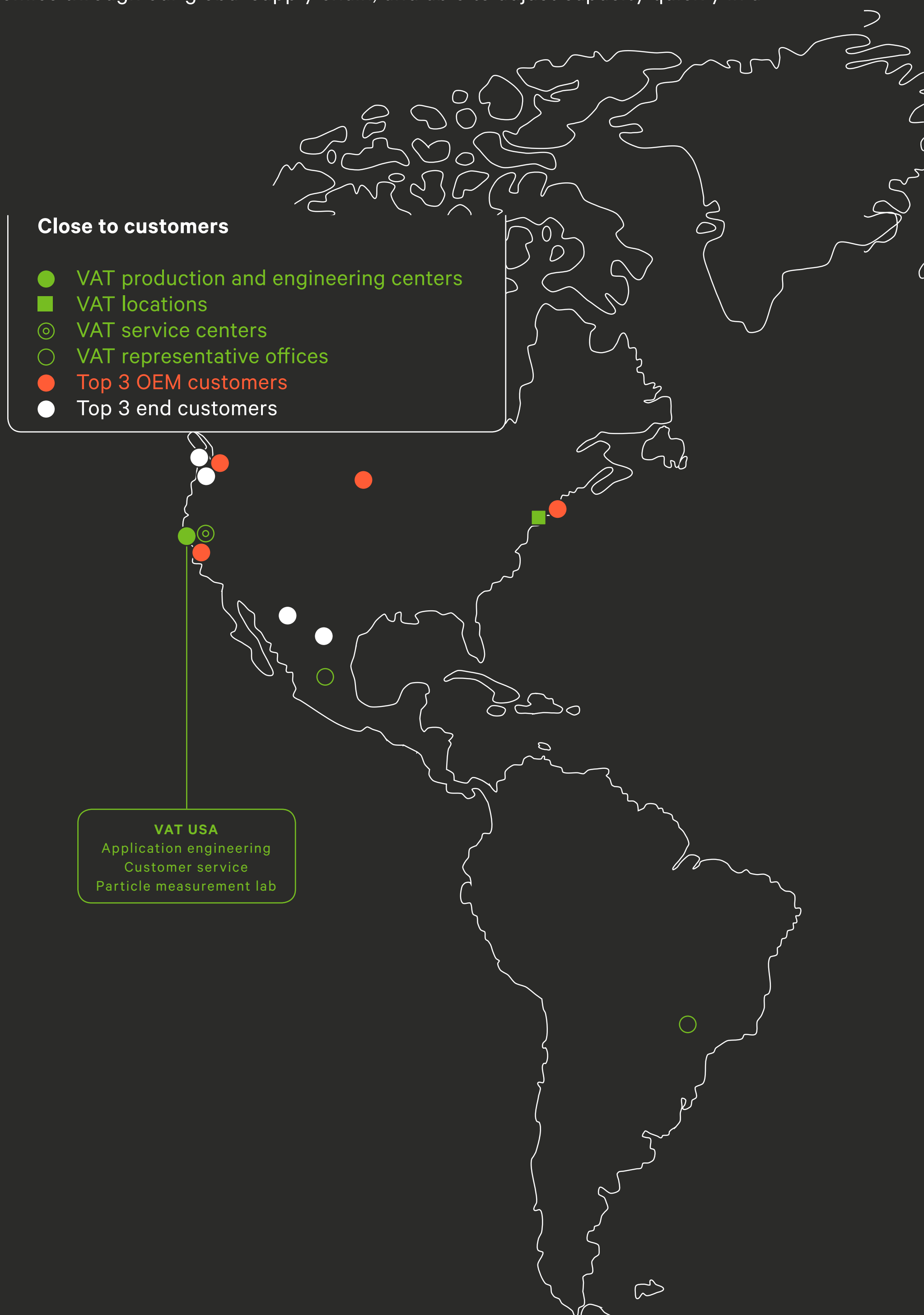
**33%**

**Europe & Middle East**

**17%**

**Asia**

**50%**

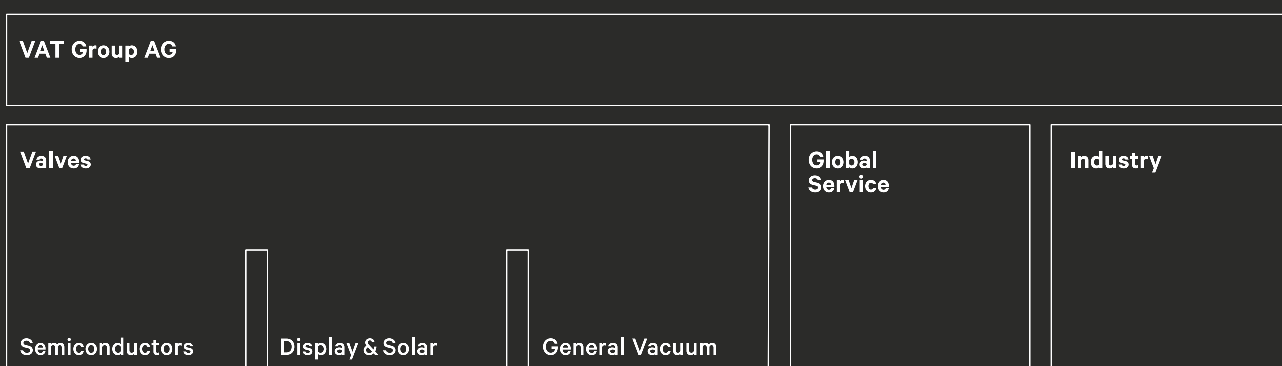


# It’s a fast and flexible set-up aimed at generating sustainable profitable growth.

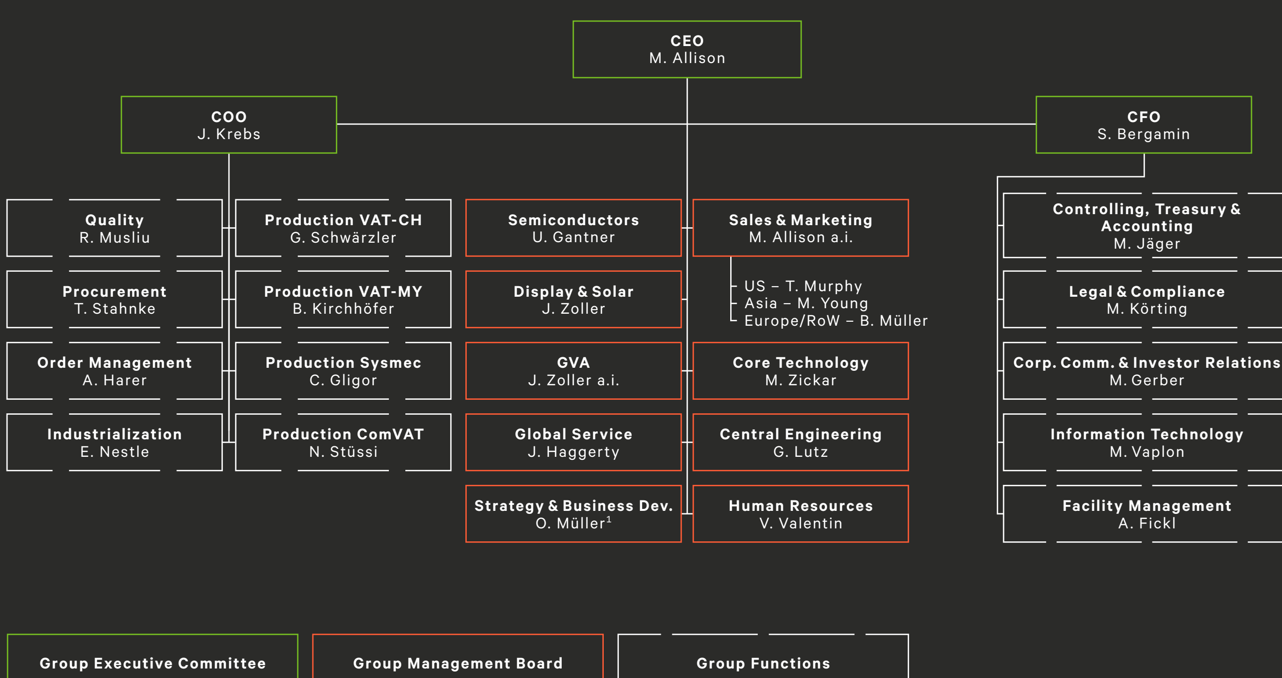

* Based on projected capacity at the end of 2020

# ORGANIZATION

VAT Group is organized and managed in three segments: Valves, Global Service, and Industry. Effective January 1, 2019, the Valves segment was reorganized, integrating the former Modules business unit into the Semiconductor business unit as they both serve the same customer base. As a consequence, the Valves segment now comprises the three business units Semiconductors, Display & Solar and General Vacuum.




The VAT Group is led by the Group Executive Committee (GEC) consisting of the CEO, CFO and COO. The GEC is supported by the Group Management Board and Group Functions.




1 Effective February 1, 2019

# VAT reports stable full-year 2018 results thanks to flexible business model

VAT Group reported stable results in 2018 despite a softening business environment in the second half of the year. Net sales grew significantly in the first six months, reflecting the strong market demand and customer capacity increases. Orders and sales moderated in the second half as some customers, mainly in the semiconductor-related business, postponed further capacity expansion plans. Nevertheless, VAT could build on its leading technology and market position to expand market share from 46% to 49% and report slightly higher revenues, leading to another record for net sales. At the same time, the company's ability to quickly adjust capacity across its global footprint also allowed it to maintain profitability at the same level as 2017.

**Mixed market conditions in 2018 after two years of record growth**

VAT's markets showed a mixed picture in 2018, with steady to higher demand in some sectors but a marked second-half slowdown in semiconductors, the company's largest end market. The semiconductor space has been characterized in recent years by intense capital spending to build new production capacity, especially for memory chips used to store data. This contributed to very strong sales growth for VAT in 2016 and 2017, increases of 24% and 36%, respectively, as well as an 18% rise in net sales in the first half of 2018. This new capacity, however, together with higher production yields in existing manufacturing facilities, led to a slight oversupply in the second half of the year. In response, semiconductor manufacturers postponed a number of capex initiatives, resulting in lower orders for new vacuum equipment.

At the same time, demand remained strong in other parts of VAT's end markets, such as logic chips used for data processing, and solar photovoltaic equipment. Technology innovations made during the last two to three years that resulted in specification wins – when customers choose VAT valve designs for their future projects – began to generate revenues in 2018. In addition, VAT continued to successfully build its general vacuum and service businesses. All of these factors allowed the company to again increase its market share and offset the second-half demand slowdown to generate slightly higher net sales for the full year.

**Higher revenues in two out of three segments**

Total order intake in 2018 amounted to CHF 648 million, down 12% from the previous year. The order backlog at year-end stood at CHF 114 million, a decrease of 31% compared to the end of 2017. The lower backlog reflects not only a decrease in orders but also improved customer delivery times. Net sales grew slightly, up 1% compared with 2017, to reach CHF 698 million, a new record. Currency movements had no material impact on the change in net sales.

Two out of three business segments contributed to the growth in net sales. Global Service reported a 7% year-on-year increase in net sales to CHF 106 million as a result of the successful execution of a focused service strategy. Net sales in the Industry segment rose 5% to CHF 41 million, driven by edge-welded bellows used in the semiconductor market as well as higher revenues in mechanical components and assemblies manufacturing.

Net sales in the Valves segment were impacted by lower demand in the second half of 2018 and ended the year marginally below the 2017 level at CHF 551 million.

**EBITDA profitability maintained on rapid implementation of cost adjustments**

Gross profit, measured as net sales minus cost of materials plus (minus) changes in inventories of finished goods and work in progress declined 3% compared with 2017 to CHF 420 million, mainly reflecting changes in inventories. As a result, the gross margin declined by about two percentage points to 60%.

Personnel expenses reflect adjustments to the slower demand in the second half of 2018, including a reduction in the number of temporary employees and a short-time work program initiated during the fourth quarter for about 400 production employees in Haag, Switzerland. At the end of 2018, VAT employed 1,712 people worldwide, a decrease of 234, or 12%, compared with the end of 2017.

EBITDA for the year improved by 1% to CHF 215 million. For the purpose of comparison, when the 2017 result is adjusted for the impact of bonus costs associated with the company's Initial Public Offering (see the "Summary of reconciliation" on page 31), VAT's EBITDA remained unchanged (as of 2018, these costs are no longer being incurred and no adjustment has been made to the 2018 result).

The EBITDA margin also rose slightly, to 30.8% from 30.6%. Compared with the adjusted 2017 EBITDA margin of 31.1%, the 2018 EBITDA margin is slightly lower.

VAT's EBIT also grew marginally to CHF 180 million, leading to an EBIT margin of 25.7%, 0.1 percentage point lower than 2017.

Below the EBIT line, VAT incurred slightly higher finance costs. Adjusted for the 2017 non-cash costs of unwinding the financing structure set up by the former private equity owners, VAT's finance costs increased from minus CHF 6 million in 2017 to minus CHF 14 million in 2018. The main reason for this increase are negative Fx effects of CHF 7 million. Reported finance net for 2018 was minus CHF 14 million, compared to minus CHF 44 million in 2017.

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**Net sales**
in CHF million

# 698.1

2017 **692.4**

As a result of the substantially lower reported finance net result, earnings before taxes (EBT) increased by 24% to CHF 167 million. Income tax expenses increased in 2018, resulting in an effective tax rate of 18.5%, within the Group's expected target range of between 18% to 20%.

As a result of the positive development of operating results, lower finance net and a slightly higher effective tax rate, VAT realized net income attributable to shareholders in 2018 of CHF 136 million, an increase of 17%.

On December 31, 2018, VAT's net debt amounted to CHF 148 million, representing a leverage ratio expressed as net debt to EBITDA of 0.7 times. The equity ratio at year-end amounted to 58.3%.

**Strong free cash flow improvement driven by higher cash from operating activities**

One of VAT's key performance indicators is free cash flow, which in 2018 amounted to CHF 124 million, an increase of 14% compared with the previous year. This is primarily the result of a 10% increase in cash flow from operating activities. Capital expenditures of CHF 48 million were essentially unchanged compared with 2017 and included the capacity expansion in Malaysia, which was concluded on schedule and on budget. Capital expenditures in 2018 represented 6.9% of Group net sales, the same level as in 2017.

Net trade working capital increased by approximately 13% compared with 2017 and now represents about 23% of net sales. VAT aims to reduce this closer to the target level of 20% of net sales in 2019.

As a result, the free cash flow margin as a percentage of net sales was 18% and the free cash flow conversion rate was 58% of EBITDA.

At its Annual General Meeting on May 16, 2019, VAT's Board of Directors is proposing a dividend for the fiscal year ending December 31, 2018, of CHF 4.00 per share to be paid out of reserves from capital contributions. That amounts to a total dividend amount of CHF 120 million, or 100% of VAT's free cash flow to equity. This is in line with the stated dividend policy of paying up to 100% of free cash flow to equity to shareholders and reflects the company's confidence in its cash generation capabilities based on expectations of future business development and an improvement in the free cash flow conversion rate.

**Summary of reconciliation**

| In CHF million | 2018 | 2017 | Change |
|---|---|---|---|
| **Net income attributable to owners of the Company** | **135.7** | **115.7** | **+17.3%** |
| Income tax expenses | 30.8 | 19.0 | +62.1% |
| Finance costs | 13.6 | 44.5 | –69.5% |
| Finance income | –0.4 | –0.5 | –18.9% |
| Amortization | 17.7 | 17.1 | +3.5% |
| Depreciation | 17.9 | 16.4 | +9.1% |
| **EBITDA** | **215.2** | **212.2** | **+1.4%** |
| | | | |
| **Adjustments** | | | |
| Personnel expenses[1] | – | 2.9 | |
| Adjusted EBITDA[2] | – | **215.1** | |

1 IPO bonus costs. The last payments under this program were made in 2017 and therefore no corresponding adjustment has been made to the 2018 result.
2 Adjusted EBITDA is calculated as earnings before interest, taxes, depreciation and amortization excluding items that we do not consider to form part of the ongoing business of the Group. Adjusted EBITDA is not a measure of financial performance calculated in accordance with IFRS and should be viewed as a supplement to, not a substitute for, our results of operations presented in accordance with IFRS. As of 2018, VAT will no longer report an adjusted EBITDA.

# Fundamental mid-term growth drivers remain in place

VAT's medium-term growth drivers remain firmly in place. The Internet of Things, cloud computing and storage, artificial intelligence and many other global digitalization trends are expected to fuel further demand for semiconductors and advanced displays over the next several years. This, in turn, is forecast to drive demand for VAT's high-performance vacuum components and related services, which are mission-critical in the precision manufacture of these digital devices. In addition, VAT forecasts a further expansion of vacuum-based production processes in a variety of industries.

For 2019, however, market visibility is very limited. The semiconductor and display sectors are still digesting the large increases in capital expenditures from 2016 to the middle of 2018. Independent market researchers, leading OEM manufacturers and VAT customers expect investments in these sectors to slow significantly in 2019, especially in the first half. On the other hand, forecasts are more positive for general vacuum growth in industrial markets and for service-related activities. Overall demand patterns for 2019 remain unclear.

On this basis, VAT expects net sales at constant foreign exchange rates in 2019 to be lower compared with 2018.

The company will continue to take advantage of its more flexible global organization and footprint to adjust costs in response to the changing market situation. This includes opportunities to realize gains from economies of scale in global supply chains as well as continued operational excellence measures across all of its business processes. At the same time, VAT is committed to building its long-term innovation and market leadership and intends to maintain investments in technology and productivity improvements in 2019.

The company expects its full-year EBITDA margin to be lower in 2019 versus the year before.

VAT maintains its mid-term EBITDA margin target of 33%, but its achievement by 2020 depends on the development of VAT's markets in 2019, underpinned by continuous improvements in the operating model, global footprint and product innovation.

As a consequence of the expected lower net sales and EBITDA margin levels, VAT also expects net income to be below the level of 2018.

Capital expenditures in 2019 are planned to be between CHF 30 and 35 million. Free cash flow in 2019 is expected to increase compared with the previous year, mainly as the result of improved net working capital management and lower capital expenditures.

**Mid-term EBITDA margin target**
in %

**33**

# Valves

The Valves segment offers the industry's broadest range of high-precision vacuum valves, both standard and customized products. The segment serves mainly original equipment manufacturers (OEMs) and in 2018 comprised four business units: Semiconductors, serving the semiconductor sector; Display & Solar, serving high-end flat-panel display and solar photovoltaic OEMs; General Vacuum for customers in research and OEMs in various industries; and Modules, delivering customized multi-valve solutions. The Valves segment draws from VAT's manufacturing facilities in Switzerland and Malaysia, plus sales, service, and engineering operations in all major markets.

While growth continued in the first six months of 2018, it slowed substantially during the second half. This was driven by a decline in orders from the semiconductor sector which in recent years has seen intense capital spending to build new production capacity, especially for memory chips. This new capacity came on line in 2018, leading to short-term oversupply and the postponement of several capital investment projects. The resulting moderation in demand for vacuum equipment was the main driver of lower full-year 2018 sales in the Valves segment.

The longer-term growth drivers for vacuum process manufacturing equipment remain firmly in place, driven by the increasing complexity of semiconductors and displays and the higher market penetration of devices that can handle more data faster and with less power consumption. This has pushed the market into the zettabyte era, where memory is measured in billions of terabytes and is expected to fuel growth for several years.

**Semiconductors: Previous specification wins partly mitigate softer 2018 demand**

The Semiconductor business unit was negatively impacted by the demand slowdown in the second half of 2018 and, despite sales generated by successful specification wins from the past two years, full-year net sales declined compared with the record level achieved in 2017.

Nevertheless, semiconductor OEMs continued to work on yield improvements for existing applications and preparing for the next generation of applications, such as logic chip node sizes of 5 nm and smaller. VAT responded by successfully developing new control valve technologies – resulting in an increase in the number of specification wins in 2018 versus the previous year – to support sales growth in the coming years. The business also qualified its latest flow valves for production at the VAT plant in Malaysia, which will strengthen the company's position as a local supplier in the important Asia market. In addition, both internal and customer tests on the latest generation of transfer valves showed completely particle-free operation based on the most accurate measurement methods currently available. All of these developments will support growth when market demand recovers.

As of the beginning of 2019, the Semiconductors and Modules business units were merged to provide a stronger and more efficient focus on the needs of their company's semiconductor customers, building on common sales channels and leading-edge valve technologies.

**Modules: Customized solutions for higher performance in a smaller footprint**

VAT's Modules business unit designs customized multiple-valve solutions for specific customer requirements. By combining valves with actuating equipment and other components to move and manipulate materials in a high-vacuum environment, VAT can help customers achieve maximum process purity in a smaller space. The modules can also be designed in a way that makes service and maintenance simpler and faster, leading to lower process downtime.

The Modules business, which mainly serves semiconductor OEMs, was also impacted by the slowdown in the second half of 2018, and net sales declined for the full year. However, Modules continued its successful track record of collaborating early in its customers' product development efforts and recorded almost 20 specification wins in 2018, an increase of almost 30% compared with 2017. The business expects these to lead to market share gains in 2019 and beyond.

**Display & Solar: Record results and market share gains**

Driven primarily by buoyant demand in the solar sector in 2018, the Display & Solar business unit generated double-digit revenue growth for the third year in a row to achieve another record for net sales.

Growth in the solar sector was particularly strong in China, where the market has been supported by significant government investments. In addition, new technologies aimed at increasing the power conversion rate of solar photovoltaic systems – often involving new and more complex solar cell structures and materials – are driving demand for new vacuum processes and the associated vacuum valve solutions.

In Display, organic light-emitting diode (OLED) displays remain the mainstream technology for most mobile devices in the higher price range. This continues to drive demand for vacuum valves, as these displays require additional and more complex vacuum process steps. Similarly, the increasing manufacture of large-format LCD TVs requires new equipment and manufacturing lines.

VAT responded to these development in 2018 with the introduction of a new G10.5 transfer valve for large display substrates. These were accepted by key customers in Japan and South Korea for etching and plasma-enhanced chemical vapor deposition (PECVD) applications. VAT also successfully developed a new generation of electrically driven pendulum valves that provide more precise soft motions, which are key in display fabrication processes.

**Key figures Valves**

| In CHF million | 2018 | 2017 | Change |
|---|---|---|---|
| Order intake | 497.5 | 590.6 | –15.8% |
| Net sales | 551.1 | 554.2 | –0.6% |
| Inter-segment sales | 44.4 | 41.1 | +8.0% |
| Segment net sales | 595.5 | 595.3 | +0.0% |
| Segment EBITDA | 192.4 | 188.6 | +2.0% |
| Segment EBITDA margin[1] | 32.3% | 31.7% | |
| Segment net operating assets | 631.2 | 606.8 | +4.0% |
| of which net trade working capital | 121.8 | 108.6 | +12.2% |

1 Segment EBITDA as a percentage of Segment net sales

### General Vacuum: Record sales in all product categories

The general vacuum business benefited from the generally positive world economy and scientific research environment in 2018 and reported a double-digit increase in net sales and a new record of 70,000 product deliveries.

In the research sector, a record number of projects were running in 2018, including the use of particle accelerators and space simulation chambers for testing satellites that require the highest levels of vacuum purity. This drove record sales of ultra-clean all-metal valves.

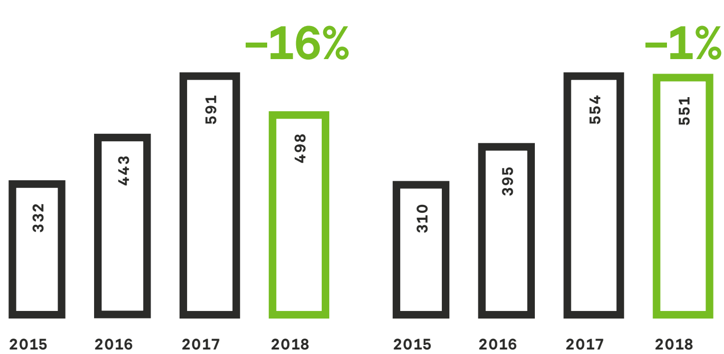
On the industrial side, the business manufactures stainless steel and aluminum valves used in a wide variety of industrial applications and benefited from continued high demand for both customized valve solutions used in individual projects, such as the development of mass spectrometer applications, as well as standard products for use in high-precision manufacturing processes in the automotive, pharmaceutical and other industries.

### Performance review 2018 and market outlook

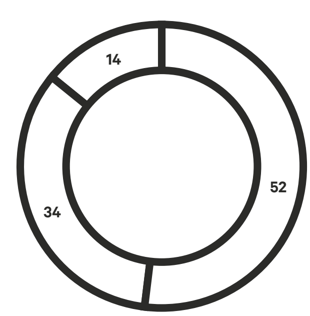
At CHF 551 million, net sales in the Valves segment were basically flat compared with 2017. Net sales in the Display & Solar and General Vacuum business units increased, but were lower in Semiconductors and Modules as a result of softening demand from the semiconductor sector in the second half of the year. Segment EBITDA rose by 2% to CHF 192 million, and the EBITDA margin climbed to 32%, driven by the growth of some higher-margin products in the Display & Solar business unit.

For 2019, VAT expects the overcapacity in some semiconductor-related markets to persist in the first half, which is likely to continue to negatively impact demand for vacuum valves. The company expects this to be partly mitigated by higher demand for general industrial vacuum solutions, while the outlook in the display and solar sectors is mixed. In this environment, the Valves segment will continue to drive targeted growth initiatives in areas not impacted by the slowdown in memory semiconductors, such as logic chips, and to expand its market share with some key customers and through a broader offering to its industrial customers.

## **Order intake & net sales**
in CHF mn




## **Net sales**
by region %




52 ASIA
34 AMERICAS
14 EMEA

# Global Service

VAT's Global Service segment supplies both OEM and end user customers in all key markets with original spare parts, valve maintenance and service, technical support and training. In addition, Global Service helps customers to improve equipment performance with customized product upgrades and equipment retrofits.

The Global Service segment set a new sales record in 2018 while maintaining high levels of profitability. Sales growth was supported by VAT's growing installed base of valves, and was augmented by the company's increasing focus on equipment retrofit programs and faster maintenance and repair times, which resulted in closer collaboration with the key OEMs in the industry.

Technology innovation by device manufacturers to continuously improve the performance of integrated circuits and displays is driving demand for ever-purer vacuum environments, which in turn drive the need for valve retrofits and upgrades in their existing plants in order to create purer vacuum environments. Additionally, these upgrades often provide the customer with higher productivity and improved maintenance life cycles, resulting in a rapid payback on their service investment. Since most upgrades target products that have been in the field over ten years, they typically involve multiple improvements. Such upgrades allow the customer to significantly extend the lifetime of their equipment, which helps them generate a higher return from their existing installed assets.

In addition to upgrades and retrofits of valves in the field, VAT continues to offer customers a global network of service and repair centers to maintain their valves at peak working condition. Operating in eight different countries, six of which are in Asia, VAT provides the largest network of valve repair facilities in the market. For example, VAT enhanced its spare parts supply capabilities in South Korea and China to provide better service to large display customers. Being close to customers is a key success factor in the service business and allows for rapid turnaround of maintenance and repair services.

### Key figures Global Service

| In CHF million | 2018 | 2017 | Change |
|---|---|---|---|
| Order intake | 108.4 | 103.6 | +4.6% |
| Net sales | 105.8 | 98.7 | +7.1% |
| Inter-segment sales | – | – | – |
| Segment net sales | 105.8 | 98.7 | +7.1% |
| Segment EBITDA | 49.6 | 47.6 | +4.2% |
| Segment EBITDA margin[1] | 46.9% | 48.2% | |
| Segment net operating assets | 118.9 | 122.5 | –3.0% |
| of which net trade working capital | 15.2 | 15.8 | –4.1% |

1 Segment EBITDA as a percentage of Segment net sales

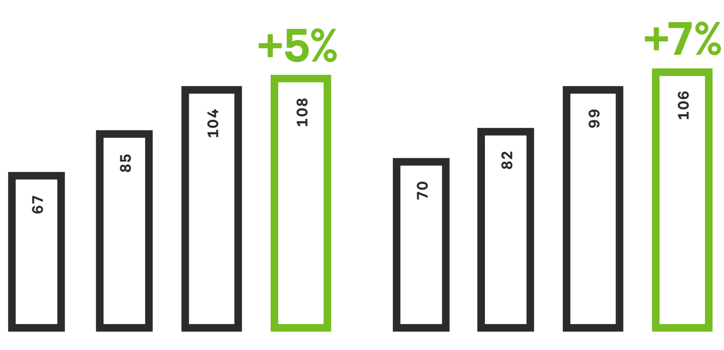
VAT is also developing service products for additional segments of the market, such as subfab valve systems used for pumping and abatement systems operating in harsh conditions below the fabrication floor. These technologically demanding systems are key to protecting process chambers from such things as sudden pump failures. Developing targeted service programs and new service products such as these for VAT's industry-leading installed base remains a key to the company's longer-term growth strategy.

**Performance review 2018 and market outlook**
Net sales increased 7% in 2018 to reach CHF 106 million, surpassing the CHF 100-million mark for the first time. Growth was strongest in the service centers and in the subfab market where more customers invested in services to protect their critical processes. Segment EBITDA rose 4% to CHF 50 million. The EBITDA margin amounted to 46.9%, a slight decrease compared to 2017.

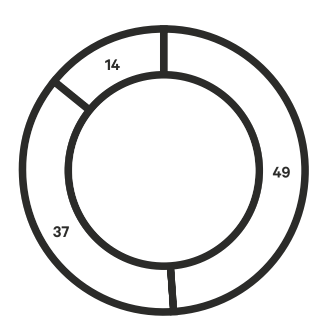
VAT expects the market for its Global Service business to remain strong in 2019 as the company continues to build its installed base of vacuum valves and expand its portfolio of upgrades and subfab service products.

Capacity utilization in the semiconductor industry is expected to remain high, leading customers to focus on improving yield and output. As a result, VAT expects the trend of valve upgrades and retrofits to continue in 2019 and beyond as a way for customers to significantly lower total cost of ownership of their existing assets.

## Order intake & net sales
in CHF mn




## Net sales
by region %




49 ASIA
37 AMERICAS
14 EMEA

# Industry

The Industry segment serves various markets, including semiconductors, automotive, aerospace and medical products. The business manufactures high-precision edge-welded sealing devices. These thin-metal membranes are used in a range of both vacuum and non-vacuum industrial processes, to manufacture products from vacuum valves in semiconductor fabrication to aneroid capsules found in high-pressure fuel injection pumps to pressure storage equipment used in commercial aircraft hydraulic systems. VAT's industry products are also used in medical devices such as drug delivery systems implanted in the human body as well as in medical equipment, such as CT scanners. Another key application is in a wide variety of synchrotron particle accelerators around the world. The segment also manufactures a range of mechanical components and assemblies for the European machinery and construction industry.

After a very strong first half year, the demand for edge-welded bellows for vacuum applications slowed significantly, in line with the softening demand seen in the semiconductor and displays markets, where bellows are used for improved process contamination control. This was more than offset, however, by growth in other industrial markets, especially the automotive sector, where VAT won large orders for dampers used in advanced automotive fuel injection systems that improve fuel efficiency. This market is expected to continue to grow in the coming years.

The Industry segment continued to generate product innovations in 2018, with a focus on advanced bellows solutions that deliver higher sealing performance and greater corrosion resistance for use in a wide variety of industrial applications. The business also invested in upgraded automated production and testing capacity – including ultra-clean machining and welding – to better handle both high-volume orders for damper capsules as well as customized solutions.

## Key figures Industry

| In CHF million | 2018 | 2017 | Change |
|---|---|---|---|
| Order intake | 42.2 | 42 | +0.5% |
| Net sales | 41.3 | 39.5 | +4.7% |
| Inter-segment sales | 21.9 | 22.6 | –3.1% |
| Segment net sales | 63.2 | 62.1 | +1.8% |
| Segment EBITDA | 8.4 | 13.4 | –37.3% |
| Segment EBITDA margin[1] | 13.3% | 21.5% | |
| Segment net operating assets | 83.1 | 74.9 | +11.0% |
| of which net trade working capital | 20.1 | 14.8 | +35.4% |

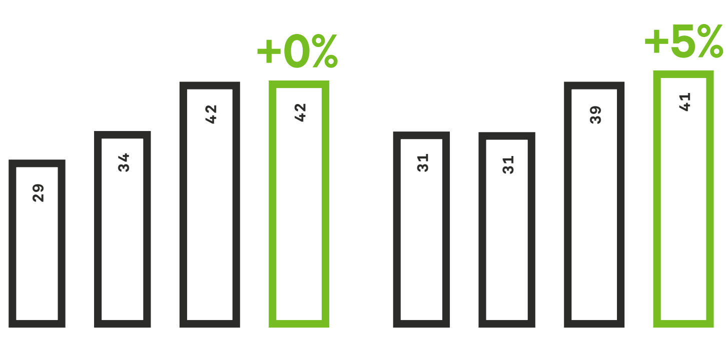
1 Segment EBITDA as a percentage of Segment net sales

**Performance review 2018 and market outlook**
Net sales in the Industry segment grew 5% compared with the year before, reaching CHF 41 million in 2018. Internal sales (not included in the net sales number) to the Valves segment declined 3% to CHF 22 million, reflecting the slowdown in the semiconductor equipment market in the second half of 2018.
The growth in third-party net sales was driven by various industries, led by automotive, and is the result of a focused strategy to increase the penetration of these markets.

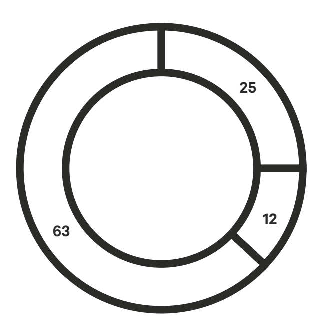
Segment EBITDA declined 37% however, as the buildup of capacity in the first half of the year, including investments in new equipment to increase productivity, led to under-absorption in the second half of the year.

For 2019, VAT expects further demand growth across a variety of industrial markets. The automotive market is expected to remain strong, and there will continue to be growth opportunities in the aerospace and medical device segments. Growth in the semiconductor-related markets will depend on the timing of the demand recovery for products such as memory chips. VAT's Industry segment will continue to expand its product portfolio to tap growth opportunities in new industrial applications as well as to build its existing strong market positions.

## Order intake & net sales
in CHF mn




## Net sales
by region %




**25 ASIA**
**12 AMERICAS**
**63 EMEA**

# Group Executive Committee

**Michael Allison**
was named CEO of VAT Group in October 2017 and took on his new role at the end of March 2018. He joined VAT from Edwards/Atlas Copco, one of the leading companies in the high-vacuum equipment sector, where from 2014 he was President of the Semiconductor Division. He is a member of the Board of Directors of SEMI International, an industry association and holds a degree in Electrical and Electronic Engineering from the University of Glasgow, Scotland.

Mr. Allison brings more than 30 years of experience in the global semiconductor capital equipment sector. His track record includes driving strong organic revenue growth together with market share gains, successful business turnarounds, and strong M&A experience.

**Stephan Bergamin**
joined VAT Group as Chief Financial Officer in January 2019. His previous positions include CFO of Gearbulk, an international shipping company, the media and advertising company Goldbach, and Swiss-based general contractor and project developer Steiner Group. Mr. Bergamin holds a PhD in Economics from HSG University of St. Gallen.

Mr. Bergamin has senior finance management experience across a broad portfolio of businesses and industry sectors, with particular strengths in cost management and business development.

**Jürgen Krebs**
joined VAT Group as Chief Operating Officer of VAT Group AG in July, 2017. Previously, Mr. Krebs was Executive Vice President, Operations, and a member of the Group Executive Board at Hauni Maschinenbau AG, Germany. He holds a PhD in Mechanical Engineering from the University of Auckland, New Zealand.

Mr. Krebs has many years of experience in the field of mechanical engineering and high-technology manufacturing processes. He has also held senior management positions in operations and supply chain management, service and sales, lean manufacturing and quality.

**Andreas Leutenegger**
joined VAT Group as CFO in 2015. He decided to leave VAT at the end of 2018 to pursue other opportunities. Prior to joining VAT Group, Mr. Leutenegger was Head of Group Controlling at Holcim Group. He holds a master's degree in Business Administration from the University of St. Gallen.

**Michael Allison, CEO**

**Andreas Leutenegger, CFO**[1]

**Jürgen Krebs, COO**

**Stephan Bergamin, CFO**[2]

1 Until December 31, 2018
2 Effective January 1, 2019

# Board of Directors

**Martin Komischke**
was elected as chairman of VAT's Board of Directors at the AGM in May 2017. Mr. Komischke has more than 20 years of senior management experience in a number of global high-tech industries. He has particular expertise in companies with leading positions in specialized markets where innovative technology is a key competitive advantage.

**Heinz Kundert**
was elected as a member of the VAT Board in March 2018 following three years as CEO of VAT Group AG. Mr. Kundert's deep knowledge of the VAT Group combined with his successful track record of more than 20 years of senior management in the global semiconductor industry provides the Board with a significant asset. He has proven experience in the implementation of marketing and operational strategies that deliver sustainable, profitable growth.

**Libo Zhang**
was elected to the Board of VAT Group in March 2018. Ms Zhang provides the Board with 20 years of experience in finance and business management in the global high-technology sector, including advanced materials and engineering. Her experience in international cooperation in Asia will help VAT further strengthen its ties in the Asian region, one of VAT's most important markets.

**Urs Leinhäuser**
was elected a member of the Board in March 2016. With more than 30 years in senior finance and operational management in a variety of technology industries, Mr. Leinhäuser's financial expertise and management experience are valuable assets to VAT's board and its committees.

**Karl Schlegel**
joined the VAT Group as a member of the Board of Directors of VAT Holding AG from 2014 to 2016 and was named to the Board of Directors of VAT Group AG in March 2016. Mr. Schlegel has more than 30 years of experience in high-technology industries in medical devices and high-vacuum equipment. He brings the Board first-hand knowledge of both the VAT Group as the former CEO and of its global industries and customers.

**Hermann Gerlinger**
was elected a member of the VAT Board in May 2017. With more than 30 years of industrial and management experience in the semiconductor and related technology fields, Mr. Gerlinger also brings to the VAT Board extensive international business and operational expertise in the areas of R&D, production and supply management.

Martin Komischke

Heinz Kundert

Libo Zhang

Urs Leinhäuser

Karl Schlegel

Hermann Gerlinger

# Corporate Governance Report

VAT Group AG is committed to the highest principles of good corporate governance, aimed at ensuring transparency, achieving a balanced relationship between management and control, and safeguarding shareholder interests. VAT Group AG regularly reviews its corporate governance framework and discloses information on Corporate Governance in accordance with the SIX Swiss Exchange Directive on Information relating to Corporate Governance, the Swiss Ordinance against Excessive Compensation with respect to Listed Stock Corporations, and the Swiss Code of Best Practice for Corporate Governance. In addition, VAT Group has implemented a Code of Conduct, setting out VAT Group's key principles.

To avoid duplication, some sections contain cross-references, in particular to the Annual Report 2018 published at https://ir.vatvalve.com/ar2018/home.html, the Compensation Report 2018 published at https://ir.vatvalve.com/ar2018/compensation-report.html and the Articles of Association of VAT Group AG, published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

For those disclosures under the SIX Swiss Exchange Directive on Information relating to Corporate Governance that are included in the notes to the consolidated financial statements, please consult the Consolidated Financial Statements 2018 of VAT Group AG published at https://ir.vatvalve.com/ar2018/financial-statements.html.

The financial year of VAT Group AG ends on December 31 of each calendar year.

## 1. Group structure and shareholders

### 1.1 Group structure

VAT Group AG, a stock corporation, was founded on February 25, 2016 (registration number CHE-202.223.983, LEI: 529900MVFK7NVALR7Y83) and its registered seat is at Seelistrasse 1, 9469 Haag, Switzerland. VAT Group consists of VAT Group AG (the ultimate holding company) and its subsidiaries in Switzerland and abroad: four production companies that can also hold a distribution function in Switzerland, Romania, and Malaysia; nine distribution companies in Europe, North America and Asia; and three holding and financing companies. An overview of this structure, with Company names, place of incorporation, share capital and VAT Group AG's participation is provided in the Consolidated financial statements 2018 of VAT Group AG on page 115.

VAT Group's operational structure is organized into three business segments aimed at delivering maximum value to customers: Valves, Global Service, and Industry. This structure is described in more detail in the segment information in the notes to the financial statements on pages 83 to 86.

### 1.2 Significant shareholders

As of December 31, 2018, 15,456 shareholders were registered in VAT Group AG's share register. 19,796,054 shares (as defined below under 2.1) were held by minority shareholders, holding each less than 3% of VAT Group AG's share capital.

Disclosure notifications of significant shareholdings in VAT Group AG that were filed in 2018 with VAT Group AG and the SIX Swiss Exchange are available from the online publication platform of the SIX Swiss Exchange: http://www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html.

As of December 31, 2018, VAT Group AG was notified of the following shareholders, representing 3% or more of the share capital of VAT Group AG:

**Name of shareholder**

| | In % of total share capital |
|---|---|
| Rudolf Maag, Switzerland | 10.34% |
| Georg Loening, USA | 9.17% |
| Massachusetts Mutual Life Insurance Company, USA | 8.23% |
| UBS Fund Management (Switzerland) AG, Switzerland | 3.18% |
| Allianz SE[1], Germany | 3.10% |

1 Position for Allianz SE as per original filing dated November 8, 2018

During 2018, VAT was informed by the former main shareholder Partners Group[1] on January 19, 2018, that they had sold all their shares in VAT. In another filing, VAT was further informed on May 14, 2018 by Norges Bank that they reduced their position to below 3%; in addition to the information as per December 31, 2018 above, VAT was also informed by Allianz SE on January 31, 2019, that they had reduced their position in VAT shares to below the threshold of 3%, holding 897,523 shares or 2.98% of outstanding shares. Further details are available from the online publication platform of the SIX Swiss Exchange: http://www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html.

VAT Group AG is not aware of any other person or institution holding, at the date of this report, directly or indirectly, on its own account or in concert with third parties, 3% or more of VAT Group AG's share capital.

### 1.3 Lockup agreements

The Management Shareholders[2] agreed to a three-year staggered lockup, with the last portion of shares being released on April 15, 2019.

### 1.4 Cross-shareholdings

VAT Group AG does not have any cross-shareholdings exceeding 5% of capital holdings or voting rights.

## 2. Capital structure

### 2.1 Company's share capital

The share capital of VAT Group AG amounts to CHF 3,000,000 divided into 30,000,000 registered shares with a nominal value of CHF 0.10 each. The shares are fully paid in. The shares have been listed on the SIX Swiss Exchange since the Company's Initial Public Offering on April 14, 2016. The VAT Group AG's International Securities Identification Number (ISIN) is CH0311864901, its market capitalization as of December 31, 2018 was CHF 2.6 billion with a free float as defined by SIX Swiss Exchange of approximately 90%. During 2018, the free float remained unchanged compared to a year ago.

VAT Group AG issues its registered shares only as uncertificated securities and registers them as book-entry securities. Shareholders have no right to request conversion of the form in which the registered shares are issued into another form. Shareholders may, however, at any time require from VAT Group AG the

1 Comprising Partners Group Client Access 8, L.P. Inc., Partners Group Barrier Reef, L.P., Partners Group Direct Inv. 2012 (EUR), L.P. Inc., St Peter Port, Guernsey GY1 1BT, Channel Islands, and Partners Group Private Equity (Master Fund), LLC, New York, NY 10036, USA, all of whose ultimate sole shareholder is Partners Group Holding AG, Zugerstrasse 57, CH-6341 Baar.

2 This group, owning together less than 3%, includes 22 members of VAT Group management or of the Board of Directors and a legal entity, majority-owned by relatives of a member of the Board of Directors.

delivery of an attestation certifying their current shareholdings. Uncertificated securities may only be transferred by way of assignment, provided that they are not registered as book-entry securities. The transfer of book-entry securities and grants of security rights on book-entry securities have to be compliant with the Book Entry Securities Act. The transfer of book-entry securities or grants of security rights on book-entry securities by way of assignment are excluded.

### 2.2 Conditional and authorized capital

According to art. 3a of the Articles of Association[3], VAT Group AG's share capital of CHF 3,000,000 may be increased by a conditional capital of up to CHF 150,000, i.e. up to 5% of the share capital, by issuing up to 1,500,000 fully paid-in registered shares with a nominal value of CHF 0.10 each, upon the exercise of option rights or in connection with similar rights regarding shares (including restricted stock units) granted to officers and employees at all levels of the Company. The preemptive rights and the advance subscription rights of the shareholders are excluded. The acquisition and subsequent transfer of registered shares is limited under art. 5 of the Articles of Association. The conditions for the allocation and exercise of the option rights and similar rights are determined by the Board of Directors. The shares may be issued at a price below the market price.

VAT Group AG does not have any authorized share capital.

### 2.3 Changes in share capital

There have been no changes in the share capital during the reporting year.

### 2.4 Participation certificates, profit-sharing certificates, preference shares and modified voting rights

As of December 31, 2018, VAT Group AG has not issued any participation certificates or profit-sharing certificates, nor has it issued any preference shares or shares with increased, limited, privileged or restricted voting rights.

### 2.5 Own shares

As of December 31, 2018, VAT Group AG held 15,264 of its own shares. None of its subsidiaries held any shares in VAT Group AG.

### 2.6 Transfer restrictions and nominee registrations

Persons acquiring registered shares will on application be entered in the share register without limitation as shareholders with voting rights, provided they expressly declare themselves to have acquired the shares in their own name and for their own account and comply with the disclosure requirement stipulated by the Swiss Financial Market Infrastructure Act. Entry in the share register as shareholder with voting rights is subject to the approval of VAT Group AG and may be refused if the applicant fails to declare expressly that he/she has acquired and will hold the shares on his/her own behalf and for his/her own account.

A resolution of the shareholders' meeting passed by at least two thirds of the represented share votes and the absolute majority of the represented shares par value is required for the easement or abolition of the restriction of the transferability of the registered shares.

Persons not expressly declaring themselves to be holding shares for their own account (nominees) will be entered in the share register with voting rights without further inquiry up to a maximum of 3% of the share capital outstanding at that time. Above this limit, registered shares held by nominees will be entered in the

3 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

share register with voting rights only if the nominee in question makes known the names, addresses and shareholdings of the persons for whose account he is holding 0.5% or more of the share capital outstanding at that time and provided that the disclosure requirement stipulated by the Swiss Financial Market Infrastructure Act (FMIA) is complied with. The Board of Directors has the right to conclude agreements with nominees concerning their disclosure requirements. Legal entities or partnerships or other associations or joint ownership arrangements which are linked through capital ownership or voting rights, through common management or in like manner, as well as individuals, legal entities or partnerships (especially syndicates) which act in concert with the intent to circumvent the entry restriction are considered as one shareholder or nominee. VAT Group AG may in special cases approve exceptions to these restrictions. No such cases were approved in 2018.

### 2.7 Convertible bonds and options

VAT Group AG has neither convertible bonds nor options regarding its shares outstanding.

## 3. Board of Directors

### 3.1 Members of the Board of Directors

The Articles of Association[4] provide that the Board of Directors shall consist of a minimum of three members, including the Chairman of the Board of Directors who is appointed by the meeting of shareholders. The Board of Directors currently consists of six non-executive members (including the Chairman).

Only Heinz Kundert (Vice Chairman of the Board of Directors) has held executive functions in VAT Group AG and of its Group companies during the last three business years prior to December 31, 2018. Namely, Heinz Kundert was CEO of VAT Group AG from June 2015 to March 13, 2018 and registered in affiliated VAT Group companies during this period.

Other than as disclosed below, none of the members of the Board of Directors has or had any significant business connection with VAT Group AG or any of its Group companies during the three years prior to December 31, 2018.

**Board of Directors**

| Name | Age | Position | Year of 1st election |
|---|---|---|---|
| Martin Komischke | 61 | Chairman | 2017 |
| Heinz Kundert[1] | 66 | Vice-Chairman | 2018 |
| Hermann Gerlinger | 65 | Member | 2017 |
| Urs Leinhäuser | 59 | Member | 2016 |
| Karl Schlegel | 65 | Member | 2016[3] |
| Libo Zhang[2] | 48 | Member | 2018 |

1 Since AGM in May 2018; Alfred Gantner was Vice-Chairman until the AGM in May 2018.
2 Since AGM in May 2018; Ulrich Eckhardt was a Member of the Board of Directors until the AGM in May 2018.
3 From 2014 until 2016 Member of the Board of Directors of VAT Holding AG

4 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

### 3.2 Background, other activities and functions

As of December 31, 2018, the members of the Board of Directors were:

**Dr. Martin Komischke, Chairman, was born in 1957 and is a German citizen. Martin Komischke was re-elected as Chairman of the Board of Directors of VAT Group AG at the AGM in May 2018.**
From 2004 to 2016, Martin Komischke served as CEO of HOERBIGER Holding AG, following his function as Head of the Strategic Business Unit “Drive Technology” and member of the Executive Board from 1996 to 2003. Before that, he held various functions at Kolbenschmidt AG and Mannesmann-Sachs AG.

In 2018, Martin Komischke served as Chairman of the Board of HOERBIGER Holding AG (since 2016). He was also a member of the Board of Directors of Stäubli Holding AG (since 2016), a member of the Supervisory Board of Aixtron SE (since 2013) and the Vice President of the Board of Trustees of HOERBIGER Foundation (since 2016).

Martin Komischke holds a degree and a doctorate in electrotechnics and mechanical engineering from the University of Aachen.

**Heinz Kundert, Vice-Chairman, was born in 1952 and is a Swiss citizen. Heinz Kundert was elected to the Board of Directors of VAT Group AG at the AGM in May 2018. From June 2015 to March 13, 2018, he was CEO of VAT Group AG.**
Heinz Kundert has extensive experience in the semiconductor industry. Beginning in 1981, Mr. Kundert served in various management positions in Asia for Balzers AG (which later became Balzers & Leybold), a division of Oerlikon-Bührle AG (later renamed Unaxis Holding AG), a global supplier of thin-film equipment for various applications. In 1991, he subsequently became the Head of Oerlikon-Bührle’s Electronic Equipment Business Unit, and then, in 1995, he assumed responsibility for Balzers Process Systems. From 1999 to 2004, Heinz Kundert served as COO and then CEO of Unaxis Holding AG (later renamed OC Oerlikon AG). At Oerlikon-Bührle AG, Mr. Kundert participated in the acquisition of Leybold AG and the divestments of Pfeiffer AG and Inficon AG. Thereafter, Heinz Kundert worked as a strategy consultant until 2015. Between 2002 and 2015, Heinz Kundert served on the Board of Directors of SEMI International, a global semiconductor industry association serving the manufacturing supply chain for the micro- and nanoelectronics industries, in San Jose, CA, USA, and was elected Vice President in 2005. In 2005, he was also appointed President of SEMI Europe in Berlin.

Currently, Heinz Kundert serves on the Board of Directors of Camox GP Ltd, an investment fund (since 2014), and on the Advisory Board of the Fraunhofer Society in Germany (since 2010).

Heinz Kundert holds a federal certificate of mechanical engineering and a degree in industry management from ITA Switzerland as well as a degree in business management from the FAH I University of St. Gallen.

**Dr. Hermann Gerlinger was born in 1953 and is a German citizen. Hermann Gerlinger became a member of the Board of Directors of VAT in May 2017.**
Between 2001 and 2016, Hermann Gerlinger was CEO of Carl Zeiss SMT GmbH and from 2006 to 2016 also member of the Executive Board of Carl Zeiss AG. Before that, he held various functions for ZEISS AG.

In 2018, Hermann Gerlinger served as advisor to the Executive Board of Carl Zeiss AG (since 2017), as member of the Supervisory Board of Siltronic AG (since 2011) and as member of the Advisory Board of the German National Metrology Institute (PTB) (since 2015).

Hermann Gerlinger holds a degree and a doctorate in physics and astronomy from the University of Würzburg.

**Urs Leinhäuser was born in 1959 and is a Swiss citizen. Urs Leinhäuser became a member of the Board of Directors of VAT Group AG in March 2016.**
From 1995 to 1999, Urs Leinhäuser was Head of Corporate Controlling at Georg Fischer AG and later CFO of Georg Fischer's Piping Systems Division. Between 1999 and 2003, he was CFO of Mövenpick Holding AG. From 2003 until 2011, he was CFO and Head Corporate Center at Rieter Holding AG. After the spin-off of Autoneum Holding AG from Rieter Holding AG in 2011, Urs Leinhäuser was CFO and Deputy CEO of Autoneum Holding AG until 2014. Since 2014, Urs Leinhäuser is self-employed and since 2016 he is partner (respectively from 2017 managing partner) at Adulco GmbH.

Currently, Urs Leinhäuser serves on the Board of Directors of Ammann Group Holding AG (since 2013), Burckhardt Compression Holding AG (since 2007) and Liechtensteinische Landesbank AG (since 2014). Since 2017, he is Chairman of the Board of Directors of Avesco AG.

Urs Leinhäuser holds a degree in business administration from the University of Applied Sciences, Zurich.

**Karl Schlegel was born in 1953 and is a Swiss citizen. He became a member of the Board of Directors of VAT Group AG in March 2016.**
Karl Schlegel served as CEO of Hamilton Medical AG between 1997 and 2003. Between 2004 and 2013, he was the CEO of VAT Group. From 2014 to 2016, he was a member of the Board of Directors of VAT Holding AG.

Karl Schlegel was a member of the foundation Board of Stiftung Arwole (a charity for individuals with disabilities from 2014 to 2018).

Karl Schlegel holds a Bachelor of Science degree from the medical engineering department of the University of Applied Sciences and Technology Buchs (NTB) and an Executive MBA from the University of St. Gallen.

**Dr. Libo Zhang was born in 1970 and is a German citizen. She became a member of the Board of Directors of VAT Group AG in May 2018.**
Prior to joining VAT Group AG, Libo Zhang has been the CFO of Borgward Group AG, Germany, a German auto manufacturer. Nonetheless this mandate ended end of 2018. Before that, she was an independent finance and controlling consultant based in Switzerland. From 2010 to 2015, she held various senior financial management positions in Germany and Asia at SGL Group, a leading global manufacturer of carbon-based products, including regional CFO and senior manager of corporate development, mergers and acquisitions. For more than ten years prior to that, she held senior positions in finance and commercial operations in the German engineering and aerospace sector.

Currently, Libo Zhang serves on the Scientific Advisory Board of CIC Controlling GmbH in Dortmund, Germany.

Libo Zhang holds a Dr. in Economics and an MBA from Georg-August University in Göttingen, Germany.

### 3.3 Mandates and other permitted activities

According to art. 23 of the Articles of Association[5], the members of the Board of Directors may have, as a member of the Board of Directors or any other superior management or administrative body, up to six mandates in publicly traded companies, up to ten mandates in private companies and up to 20 mandates in other commercial legal entities. Mandates are activities in the superior management or administrative bodies in legal entities that are obliged to register themselves in a Swiss commercial register or a foreign equivalent and which are not controlled by VAT Group AG, do not control VAT Group AG or do not constitute pension funds insuring employees of the VAT Group. Board members may also exercise up to ten mandates of any function in associations, charity foundations and employee assistance foundations.

Mandates in companies that are under uniform control or the same beneficial ownership are deemed one mandate.

### 3.4 Election and term of office

Each member of the Board of Directors, including the Chairman, has to be elected, and may only be removed by a shareholders' resolution. The maximum term of office for a member of the Board of Directors is one year. In this context, a year means the time period between one ordinary shareholders' meeting and the next or, if a member is elected at an extraordinary shareholders' meeting, between such extraordinary shareholders' meeting and the next ordinary shareholders' meeting. Re-election is allowed as long as the relevant member has not completed the age of 72 at the time of re-election and has not served on the Board of Directors for more than nine years. The Board of Directors appoints the secretary who does not need to be a member of the Board of Directors.

### 3.5 Powers and duties

The Board of Directors is entrusted with the ultimate direction of VAT Group AG's business and the supervision of the persons entrusted with VAT Group AG's management. It represents VAT Group AG towards third parties and manages all matters which have not been delegated to another body of VAT Group AG by law, the Articles of Association[5] or by other regulations.

The Board of Directors has the following non-transferable and irrevocable duties:

- ultimately directing VAT Group AG and issuing the necessary directives,
- determining the organization,
- organizing the accounting, the internal control system (ICS), the financial control and the financial planning as well as performing a risk assessment,
- appointing and recalling the persons entrusted with the management and representation of VAT Group AG and granting signatory power,
- ultimately supervising the persons entrusted with the management, in particular with respect to compliance with the law, the Articles of Association, regulations and directives,
- preparing the annual report, as well as the shareholders' meeting and implementing the latter's resolutions,
- preparing the compensation report,
- informing the judge in the event of overindebtedness,

5 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

- passing resolutions regarding the subsequent payment of capital with respect to non-fully paid-in shares and regarding the amendments to the Articles of Association entailed thereby,
- passing resolutions confirming increases in share capital regarding the preparation of the capital increase report and regarding the amendments to the Articles of Association entailed thereby,
- examining compliance with the legal requirements regarding the appointment, election and the professional qualifications of the auditors,
- executing the agreements pursuant to Articles 12, 36 and 70 of the Swiss Merger Act.

If the office of the Chairman of the Board of Directors is vacant, the Board of Directors shall appoint, for the time period until the conclusion of the next ordinary General Meeting, a substitute who must be a member of the Board of Directors.

### 3.6 Meetings of the Board of Directors

According to the Organizational Regulations[6], the Board of Directors meets at the invitation of the Chairman as often as required to fulfill its duties and responsibilities, but at least quarterly, or whenever a member or the CEO indicating the reasons requests so in writing. If the Chairman of the Board of Directors does not comply with such a request within ten working days, the Vice-Chairman of the Board of Directors will be entitled to convene such meetings.

Resolutions of the Board of Directors are passed with the majority of the votes cast. In the case of a tie, the Chairman has a casting vote. To validly pass a resolution, at least the majority of the members of the Board of Directors must attend the meeting or be present by telephone or similar communications equipment by means of which all persons participating in the meeting can hear each other. Absent members cannot be represented. A resolution in writing is permitted, provided that no member of the Board of Directors requests oral deliberation. No quorum is required for confirmation resolutions and amendments of the Articles of Association[7] in connection with capital increases or measures related thereto pursuant to Articles 651a, 652e, 652g and 653g of the Swiss Code of Obligations. If a conflict of interest is believed to exist, a member of the Board of Directors shall abstain from voting upon all matters involving the interest at stake.

The three members of the Group Executive Committee attended all meetings of the Board of Directors in an advisory capacity. The members of the Group Management Board can attend the meetings of the Board of Directors at which the strategy of VAT Group or other specific topics related to their responsibilities were on the agenda.

### 3.7 Committees of the Board of Directors

In compliance with the Articles of Association[7], the Board of Directors issued Organizational Regulations[6] that govern tasks and areas of responsibility of the Board of Directors and its Committees as described in this section 3. They are regularly reviewed and updated.

The Board of Directors established the Audit Committee (AC) and the Nomination and Compensation Committee (NCC) which aim to strengthen and support VAT Group AG's corporate governance structure. In addition, the VATmotion Committee and the Technology Committee (TC) were introduced in 2017.

The Committees may conduct or authorize investigations within their areas of responsibility; if necessary, they may involve external experts.

The table below outlines the Committee memberships of the current members of the Board of Directors as of December 31, 2018.

6 The Organizational Regulations of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/organizational-regulations-of-vat-group-ag.
7 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

**Board of Directors**

| | Audit Committee (AC) | Nomination and Compensation Committee (NCC) | VATmotion Committee | Technology Committee |
|---|---|---|---|---|
| Martin Komischke | – | Chairman | Chairman | – |
| Heinz Kundert | – | Member | – | – |
| Libo Zhang | Member | – | – | – |
| Hermann Gerlinger | – | – | Member | Chairman |
| Urs Leinhäuser | Chairman | – | Member | – |
| Karl Schlegel | – | Member | Member | Member |

## 3.8 Audit Committee (AC)

In accordance with the AC charter[8], the AC consists of at least two members of the Board of Directors. The members of the AC and the AC Chairman are appointed by the Board of Directors. The term of office of the members of the AC is one year. Re-appointment is possible.

The AC is currently chaired by Urs Leinhäuser who is supported by Libo Zhang.

The AC assists the Board of Directors in fulfilling its duties to supervise management. In particular, the AC has the following duties:

- evaluating the external auditors, with regard to the fulfillment of the necessary qualifications and independence according to the applicable legal provisions, and making proposals to the Board of Directors concerning the choice of the external auditors,
- assessing the work performed by the external auditors and, upon request of the CFO, approving the budget for auditing fees,
- examining, reviewing and approving the accounting policies and the auditing plan of the internal and external audit,
- approving the necessary non-audit-specific services provided by the external auditors,
- organizing and evaluating the work of the internal audit and issuing recommendations to the Board of Directors,
- reviewing the outcome of the annual accounts (including material items not shown on the annual balance sheet) of VAT Group AG and the VAT Group with the external auditor and the relevant members of the Group Executive Committee as well as issuing the necessary applications and recommendations to the Board of Directors,
- discussion of the outcome of the annual audits and the reports of the internal audit with the external auditors and issuing the necessary applications and recommendations to the Board of Directors,
- interviewing the Group Executive Committee and the external and internal auditors regarding major risks, contingent liabilities and other responsibilities of the VAT Group as well as evaluating the respective measures taken by the VAT Group and issuing recommendations to the Board of Directors,
- assessing and assuring the cooperation of the external and the internal auditors and issuing recommendations to the Board of Directors,
- generally assessing the yearly business expenses of the members of the Group Executive Committee and issuing recommendations to the Board of Directors.

8 The AC charter of VAT Group AG is published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/audit-committee-charter-of-vat-group-ag.

### 3.9 Nomination and Compensation Committee (NCC)

In accordance with the NCC charter[9], the NCC consists of at least three members of the Board of Directors. The members of the NCC are each elected by the shareholders' meeting. The term of office of the members of the NCC is one year. In this context, a year means the time period between one ordinary shareholders' meeting and the next or, if a member is elected at an extraordinary shareholders' meeting, between such extraordinary shareholders' meeting and the next ordinary shareholders' meeting. Re-election is possible. If there are vacancies on the NCC, the Board of Directors shall appoint substitutes from amongst its members for the remaining term of office.

The NCC is currently chaired by Martin Komischke who is supported by Heinz Kundert and Karl Schlegel.

The function of the NCC is to support the Board of Directors in establishing and reviewing a compensation strategy as well as in preparing the proposals to the shareholders' meeting regarding the compensation of the Board of Directors and the Group Executive Committee.

The NCC is responsible for preparing proposals to the full Board of Directors regarding:

- the compensation scheme of the VAT Group pursuant to the principles of art. 25 and 26 of the Articles of Association[10],
- the determination of compensation-related targets for the executive management,
- the approval of the individual compensation of the Chairman of the Board of Directors, the other members of the Board of Directors as well as the maximum individual aggregate compensation of the CEO,
- the individual compensation (fixed and variable compensation) of the members of the executive management as well as their further terms of employment and titles,
- amendments to the Articles of Association with respect to the compensation scheme for members of the executive management,
- mandates pursuant to art. 23 of the Articles of Association and further additional occupation of the members of the executive management.

Further duties and responsibilities may be provided in the Articles of Association, the Organizational Regulations[11] such as the NCC charter[9] or law.

Further information about the NCC and its duties is provided in the Compensation Report on pages 63 to 64.

### 3.10 VATmotion Committee and Technology Committee

In accordance with the Organizational Regulations[11], the Board of Directors can appoint committees to prepare and execute its resolutions and to supervise the Company. In 2017, the Board of Directors established the VATmotion Committee and the Technology Committee (TC).

The VATmotion Committee supports the full Board of Directors with regard to operational excellence measures. The VATmotion Committee is chaired by Martin Komischke who is supported by Hermann Gerlinger, Urs Leinhäuser and Karl Schlegel.

9 The NCC charter of VAT Group AG is published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/ncc-charter-of-vat-group-ag.
10 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.
11 The Organizational Regulations of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/organizational-regulations-of-vat-group-ag.

In accordance with the TC Charter[12], the TC consists of at least two members of the Board of Directors. It provides advice to the full Board of Directors in technological terms. It supports the management team in the development of the technology strategy and the evaluation of the Company's research, development and product portfolio. The Technology Committee is currently chaired by Hermann Gerlinger who is supported by Karl Schlegel.

### 3.11 Meetings of the Committees of the Board of Directors

According to the Organizational Regulations[13], the meetings of the Committees are convened by their Chairman, usually ahead of each ordinary Board of Directors meeting, and are held as often as required (NCC at least three times a year).

In order to perform their duties, at least half of the Committee members have to be present in person or participate in electronic communications. In any case, a minimum attendance of two is required. Resolutions or motions to the Board of Directors must be passed by a majority of the votes cast. Abstentions from voting are regarded as non-delivered votes. Resolutions and motions to the Board of Directors may also be made in writing, unless a member requires oral deliberation. Upon the invitation of its Chairman and in consultation with the Chairman of the Board of Directors and, if applicable, the CEO, other representatives of the Group Executive Committee and other persons may participate in the Committee’s meetings. If a conflict of interest is believed to exist, a member of the Committee shall abstain from voting upon all matters involving the interest at stake.

The Committees inform the Board of Directors at the following regular meeting of the Board of Directors, in case of urgency also immediately.

### 3.12 Overview of meetings in 2018

During 2018, the Board of Directors and the Committees conducted regular formal meetings and conference calls.

**Formal meetings and conference calls**

| | BoD | AC | NCC | VATmotion Committee | Technology Committee |
|---|---|---|---|---|---|
| **Total number of meetings/calls in 2018** | 5/5 | 6/2 | 4/0 | 5/0 | 3/0 |
| Usual average duration, approx. (in hours) | 4/1 | 2/1 | 2 | 2 | 2 |
| Martin Komischke | 5/5 | – | 3 | 5 | – |
| Alfred Gantner (until 17 May 2018) | 1/0 | –/– | - | – | – |
| Heinz Kundert (from 18 May 2018) | 3/4 | – | 2 | – | – |
| Ulrich Eckhardt (until 17 May 2018) | 2/1 | 3/1 | 2 | – | – |
| Libo Zhang (from 18 May 2018) | 3/4 | 3/1 | - | – | – |
| Hermann Gerlinger | 5/5 | – | – | 5 | 3 |
| Urs Leinhäuser | 5/5 | 6/2 | – | 4 | – |
| Karl Schlegel | 5/5 | – | 4 | 4 | 3 |
| Internal Audit, PwC | – | 2/0 | – | – | – |
| External Audit, KPMG | – | 3/1 | – | – | – |
| External Advisors | – | – | 2 | – | – |

The three members of the Group Executive Committee attended all meetings and calls of the Board of Direc-

12 The TC Charter of VAT Group AG is published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/tc-charter.
13 The Organizational Regulations of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/organizational-regulations-of-vat-group-ag.

tors and the meetings of the Committees as necessary. The Head Legal and Compliance joined all meetings to act as secretary. External advisors attended two meetings of the NCC. VAT employees were invited to the respective meetings and calls occasionally when required.

In addition, the Board of Directors and the Committees held several informal meetings and calls (with and without VAT management and/or guests to discuss current subjects between formal meetings and calls).

### 3.13 Determination of areas of responsibility of Board of Directors and Group Executive Committee

The Board of Directors is responsible for the ultimate direction of VAT Group AG as well as the supervision of the Group Executive Committee. The Board of Directors attends to all matters which are not delegated to or reserved for another corporate body of VAT Group AG by applicable laws, the Articles of Association[14] or the Organizational Regulations[15]. The Board of Directors is regularly informed about developments of VAT Group AG and the VAT Group and decides upon proposals and reports provided by the Committees or the Group Executive Committee.

The Board of Directors delegated the executive management of VAT Group AG and of the VAT Group to the Group Executive Committee acting under the leadership of the CEO, subject to applicable laws and the Articles of Association[14] Further, the Board of Directors may delegate the preparation, proposal and execution of its resolutions or the supervision of certain projects and topics to one or several members of the Board of Directors, to a Committee, to the CEO, or to one of the members of the Group Executive Committee.

### 3.14 Information and control instruments vis-à-vis the Group Executive Committee

Each Member of the Board of Directors can anytime require any information on each and all matters relating to VAT Group AG and its Group companies.

Meetings of the Board of Directors are attended by the CEO, COO and the CFO. At each meeting, the Board of Directors is to be informed by the attending members of the Group Executive Committee on the current course of business and significant business transactions. This includes, but is not limited to, a consolidated annual budget, monthly financial reporting, quarterly financial projections, profit and loss forecasts, monthly KPI reports and strategic risk management reports. Extraordinary events have to be reported immediately to the members of the Board of Directors by means of a circular, if necessary after prior information by phone, e-mail or fax. Any member of the Board of Directors may, anytime, require information or disclosure of business documents. Such requests are to be addressed in writing to the Chairman of the Board of Directors. As far as necessary for the completion of a task, each member of the Board of Directors may request the Chairman to provide him with accounts and files. Financial reports are submitted to the Board of Directors on a monthly basis. Full financial consolidation, including the cash flow statement, is performed on a monthly basis.

Based on the Organizational Regulations[15] of the Board of Directors, the AC has implemented a comprehensive system for monitoring and controlling the risks linked to the Company's business activities. This includes risk identification, analysis, control and periodical reporting to the AC. Operationally, the Group Executive Committee is responsible for controlling risk management. In addition, responsible persons are designated in the Company for significant individual risks and control activities, such as periodic internal audits of internal control systems (more details can be found in Section 8.1 herein).

14 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.
15 The Organizational Regulations of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/organizational-regulations-of-vat-group-ag.

## 4. Group Executive Committee

Subject to those affairs which lie within the responsibility of the Board of Directors according to Swiss law, the Articles of Association[16] and the Organizational Regulations[17], the Board of Directors has delegated the executive management of VAT Group AG to the Group Executive Committee acting under the leadership of the CEO. The Group Executive Committee is mainly responsible for the financial and operational management and for the efficiency of the corporate structure and organization of the VAT Group AG.

### 4.1 Members of the Group Executive Committee

The Group Executive Committee currently consists of three members, the CEO, CFO and COO, and is headed by the CEO.

The CEO is appointed and dismissed by the Board of Directors upon recommendation of the NCC. The other Group Executive Committee members are appointed and dismissed by the Board of Directors upon recommendation of the CEO and the NCC.

As of December 31, 2018, the members of the Group Executive Committee were:

**Michael (Mike) Allison, CEO, born in 1962, British citizen, joined VAT on January 1, 2018 and succeeded Heinz Kundert as CEO on March 13, 2018.**

Mike Allison joined Edwards in 2008 as Vice President of Global Sales & Services and, after the acquisition by Atlas Copco in 2014, became President of the Semiconductor division at Edwards/Atlas Copco. In this role and always having sustainable value creation in mind, Mike Allison achieved substantial business success and helped transform Edwards into one of the leading companies in the Semiconductor Vacuum sector. In addition to his roles at Edwards/Atlas Copco, Mike Allison also spent 20 years with KLA-Tencor where he had many significant roles including Executive Vice President and General Manager of Global Services, based in San Jose, USA. Other roles included significant positions in business strategy, sales, marketing and technical positions in Germany, UK and the USA.

Mike Allison is a member of the International Board of SEMI, the global industry association for the semiconductor equipment and material suppliers.

He holds a BSc Honors in Electrical & Electronic Engineering from Glasgow University.

**Andreas Leutenegger, CFO until December 31, 2018, was born in 1968 and is a Swiss citizen. Andreas Leutenegger joined the VAT Group AG as CFO in May 2015.**

Andreas Leutenegger started his career in 1994 in the audit department of KPMG in Zurich. Between 1999 and 2004, he served as a Corporate Controller and then Head of Corporate Reporting at Holcim Group and between 2004 and 2010 as CFO of Siam City Cement Public Company Limited, a member of the Holcim Group at the time. From 2010 until 2015, he was Head of Group Controlling at Holcim Group.

Andreas Leutenegger holds a master's degree in business administration from the University of St. Gallen, is a Swiss Certified Public Accountant and completed the Advanced Management Program (AMP 166) at Harvard Business School in 2004.

16 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.
17 The Organizational Regulations of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/organizational-regulations-of-vat-group-ag.

**On 25 October 2018, VAT announced that, effective as of January 1, 2019, Dr. Stephan Bergamin, born in 1966, a Swiss citizen, was appointed as CFO of VAT Group AG, succeeding Andreas Leutenegger who left VAT Group AG by December 31, 2018.**
Stephan Bergamin joined VAT Group AG from Gearbulk Group, a specialized global cargo shipping company, where he was CFO from 2015 to 2018. Prior management positions include CFO roles at Goldbach, Cofely, the Steiner Group and companies within Swissair Group. He also worked in the corporate finance department at Credit Suisse as a finance consultant and project leader.

Stephan Bergamin holds a PhD in economics from the University of St. Gallen, specializing in Corporate Finance, and completed the Advanced Management Program (AMP 177) at Harvard Business School in 2009.

**Dr. Jürgen Krebs[18], COO, was born in 1967 and is German citizen. Jürgen Krebs was appointed Chief Operating Officer of VAT Group AG as of June 1, 2017.**
Previously, Jürgen Krebs was Executive Vice President Operations and a member of the Group Executive Board at Hauni Maschinenbau AG, Hamburg, Germany, a position he held from 2004. Before that, Jürgen Krebs held various management positions at Heidelberg Druckmaschinen AG and Heidelberg Web Systems Inc.

Jürgen Krebs holds an engineering degree from the Technical University of Kaiserslautern, Germany, and a PhD in Mechanical Engineering from the University of Auckland, New Zealand.

### 4.2 Mandates and other permitted activities

According to art. 23 of the Articles of Association[19], with the approval of the NCC, the members of the Group Executive Committee may have, as a member of the Board of Directors or any other superior management or administrative body, up to three mandates in publicly listed companies, up to five mandates in companies pursuant to art. 727 para. 1 number 2 of the Swiss Code of Obligations, and up to five mandates in other legal entities. Mandates are activities in the superior management or administrative bodies in legal entities that are obliged to register themselves in a Swiss commercial register or a foreign equivalent and which are not controlled by VAT Group AG, do not control VAT Group AG or do not constitute pension funds insuring employees of the VAT Group.

Mandates in companies that are under uniform control or the same beneficial ownership are deemed to be one mandate.

### 4.3 Management contracts

There are no management contracts with companies not belonging to the VAT Group.

### 4.4 Transactions of members of the Board of Directors or the Group Executive Committee

Detailed information regarding related-party transactions with members of the Board of Directors and Group Executive Committee is provided on the website of SIX Swiss Exchange: http://www.six-exchange-regulation.com/en/home/publications/management-transactions.html.

18 Registered under his 2nd forename as "Ernst Krebs" in the commercial register
19 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

## 5. Compensation of the Board of Directors and Group Executive Committee

### 5.1 Compensation, shareholdings and loans

Information on compensation and shareholdings of the members of the Board of Directors and the Group Executive Committee can be found in the Compensation Report starting on page 62. The provisions regarding the principles of performance-related compensation, the allocation of equity securities, participation plans, the additional amount for payments to members of the Group Executive Committee appointed after the vote on remuneration by the shareholders' meeting, as well as regarding loans, credits and pension benefits are set in art. 25 to 29 of the Articles of Association[20]. The rules regarding the approval of the remuneration by the shareholders' meeting are set in art. 12 of the Articles of Association[20]

According to the Articles of Association[20] VAT Group AG may not grant loans, credits, pension benefits other than from occupational pension funds or securities to members of the Board of Directors or the Group Executive Committee; advance payments of fees for lawyers, court fees and similar costs relating to the defense against corporate liability claims up to a maximum of CHF 1,000,000 are not subject to this provision. See also information provided in the Compensation Report on page 63, 64, 65 and 70.

## 6. Shareholders' participation

### 6.1 Voting rights restrictions

The identity of the owners or beneficiaries shall be entered in the share register stating first/last name (company name), domicile (registered seat), address and citizenship.

Voting rights may be exercised only after a shareholder has been registered in VAT Group AG's share register as a shareholder with voting rights. In shareholders' meetings, each shareholder has equal rights, including equal voting rights. According to the Articles of Association[20] each share carries one vote. All shares are entitled to dividends. At shareholders' meetings, shareholders may be represented by a proxy appointed in writing, a representative by law or the independent proxy. The proxy need not be a shareholder. Under the Articles of Association[20] and after due consultation with the persons concerned, VAT Group AG is authorized to delete entries in the share register with retroactive effect if they were effected on the basis of false information or if the respective person does not provide the information. The person concerned has to be immediately informed about the deletion.

### 6.2 Independent proxy

The provisions of the Swiss Ordinance against Excessive Compensation provide that the Board of Directors must ensure that the shareholders are able to electronically grant proxies and instruct the independent proxy on (i) agenda items included in the invitation to the shareholders' meeting, and (ii) new motions which were not disclosed in the invitation to the shareholders' meeting. The independent proxy is required to exercise the voting rights granted by shareholders only in accordance with shareholder instructions. Further, absent express voting instructions, the independent proxy is required to abstain from voting. If VAT Group AG does not have an independent proxy, the Board of Directors shall appoint a substitute for the time period until the conclusion of the next ordinary shareholders' meeting.

20 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

At the ordinary shareholders' meeting held on May 17, 2018, Mr. Roger Föhn of ADROIT, Kalchbühlstrasse 4, 8038 Zurich, Switzerland, was elected as the independent proxy for the term ending at the conclusion of the next ordinary shareholders' meeting.

### 6.3 Quorums required

No statutory quorums other than those defined by Swiss corporate law and the Swiss Federal Merger Act apply. Any article of the Articles of Association[21] providing for a greater voting requirement than is prescribed by law or the existing Articles of Association must be adopted by a qualified majority of at least two thirds of the represented share votes and the absolute majority of the represented shares par value. The Articles of Association do not prescribe that a quorum of shareholders is required to be present at a shareholders' meeting.

### 6.4 Convocation of shareholders' meetings

Shareholders may be convened by the Board of Directors or, if necessary, by a company's statutory auditor or liquidator. The Board of Directors is further required to convene an extraordinary shareholders' meeting within two months if resolved at a shareholders' meeting or requested by one or more shareholders representing in aggregate at least 10% of VAT Group AG's nominal share capital registered in the commercial register.

Registered shareholders with voting rights individually or jointly representing at least 5% of the share capital of VAT Group AG may demand that items be put on the agenda. Such demands have to be submitted to the Chairman of the Board of Directors at least 45 calendar days before the date of the shareholders' meeting and shall be in writing, specifying the items and the proposals.

A shareholders' meeting is convened by publishing a notice of such meeting in the Swiss Official Gazette of Commerce at least 20 days before the date of the meeting. To the extent the post or e-mail addresses of the shareholders are known, notice shall be sent simultaneously by post or e-mail. The notice shall state the day, time and place of the meeting, the agenda, the proposals of the Board of Directors and the proposals of the shareholders who have requested the shareholders' meeting or that an item be included on the agenda.

### 6.5 Entry in the share register

The Articles of Association[21] do not specify the date by when shareholders have to be entered into the share register to participate in the shareholders' meeting. For organizational reasons, no shareholders will be registered 12 calendar days prior to the shareholders' meeting.

## 7. Change of control provisions

### 7.1 Duty to make an offer/Opting-out, opting-up

Under the Swiss Financial Market Infrastructure Act (FMIA), if a person acquires shares of a listed Swiss company exceeding more than 33⅓% of the voting rights, that person must make a takeover bid to acquire all of the other listed shares of that company. A company's Articles of Association may either eliminate this provision (opting-out) or may raise the relevant threshold to 49% (opting-up).

21 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

Art. 33 of VAT Group AG's Articles of Association[22] provide for a selective "opting-out" for the stated entities of Partners Group[23] and Capvis[24], which are, when acting alone or in concert, exempted from the duties pursuant to the FMIA. This opting-out provision will automatically expire on December 31, 2020, meaning that if following such date any of the exempted persons (alone or acting in concert) newly exceeds the threshold of 33⅓% of the voting rights (whether exercisable or not), art. 135 FMIA will apply to that person as well. As neither Partners Group nor Capvis hold any shares in VAT Group AG as of December 31, 2018, this opting-out provision is currently not applicable.

### 7.2 Change of control

There are no change of control clauses for the members of the Board of Directors, except for the restricted shares, for which the three-year blocking period will be released in case of a successful takeover bid or the delisting of VAT Group AG. Information on the restricted shares is provided in the Compensation Report, page 69.

There are no change of control clauses for the members of VAT Group AG's Group Executive Committee or of senior management.

## 8. Audits

### 8.1 Internal Audit

Internal Audit is an independent function acting on behalf of the Board of Directors under the guidance and oversight of the AC. VAT Group AG chose to co-source with PricewaterhouseCoopers (PwC) in order to execute the individual audits and PwC has the responsibility to plan, execute and report the audits. According to the audit plan approved by the AC, the internal audit function conducts three audits a year and yearly issues a risk report to the Board of Directors.

### 8.2 External Audit

The external auditor is elected for a period of one year at the shareholders' meeting. KPMG AG, St. Gallen, was appointed as statutory auditor and group auditor in 2016 (and re-elected in 2017 and 2018), auditing the consolidated financial statements and the individual financial statements of VAT Group AG. Mr. Toni Wattenhofer was named lead auditor in 2016. The holder of this office changes every seven years, in accordance with Swiss law.

In 2018, aggregate audit fees for KPMG's audit of VAT Group AG and the VAT Group amounted to CHF 283,125.

KPMG rendered in 2018 additional services, in respect to compliance, tax returns and tax advice amounting to aggregate fees of CHF 127,710.

The Board of Directors is responsible for the supervision and control of the external audit process. Its remit includes reviewing internal and external audit reports; it is assisted by the AC when discharging this duty. The AC discusses the audit report results and evaluates their quality and comprehensiveness. The lead auditor in charge who represents the external auditor attended four meetings (in person or by telephone) of the AC in the year under review. An overview of meetings and attendance can be found in section 3.12 herein.

22 The Articles of Association of VAT Group AG are published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/articles-of-association-vat-group-ag.

23 Comprising Partners Group Client Access 8, L.P. Inc., Partners Group Barrier Reef, L.P., Partners Group Direct Inv. 2012 (EUR), L.P. Inc., St Peter Port, Guernsey GY1 1BT, Channel Islands, and Partners Group Private Equity (Master Fund), LLC, New York, NY 10036, USA, all of whose ultimate sole shareholder is Partners Group Holding AG, Zugerstrasse 57, CH-6341 Baar.

24 Comprising Capvis Equity III L.P., Capvis III Limmat L.P. (both acting through its general partner Capvis General Partner III Limited), and Capvis Equity IV L.P. (acting through its general partner Capvis General Partner IV Limited), St. Helier, Jersey JE2 3TE, Channel Islands

Once per year, the Board of Directors verifies the selection of potential auditors, in order to propose the preferred audit firm for election at the annual shareholders' meeting. Evaluating the effectiveness of the auditors, the AC considers in particular the following criteria: independence of both the audit firm and the lead auditor, qualification, including technical and operational competence, focus on significant risk areas, effectiveness and practicability of recommendations, efficiency of collaboration and transparency of communication.

The AC also examines the proportion between the external audit fees for the annual financial statements and the fees for additional non-audit services performed by the auditors quarterly.

## 9. Information policy

VAT Group AG engages in transparent, timely and regular communication with its shareholders, the capital markets and the general public.

VAT Group AG publishes its annual results, interim reports (semi-annually) and quarterly trading updates on the dates listed in the financial calendar published on the Investor Relations website at http://www.vatvalve.com/InvestorRelations/investor-relations/financial-calendar. The financial statements are prepared according to the International Financial Reporting Standards (IFRS). Printed annual reports are available upon request. All interim reports, Company press releases and ad hoc publications are also available on the VAT Group AG's website, as are subscription services for all such publications.

VAT Group AG convenes media and investor conferences on a regular basis. Press releases and ad hoc publications containing potentially price-sensitive information are published regularly and in accordance with the rules of the SIX Swiss Exchange. The SIX Swiss Exchange regulations can be found at http://www.six-exchange-regulation.com.

Information about the share price, annual results and interim reports, financial calendar, minutes of the annual shareholders' meeting, press releases as well as the Articles of Association are available at http://www.vatvalve.com/InvestorRelations/Investor-relations.

All upcoming dates can be found in the financial calendar on page 143 of this annual report.

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Financial Reports: http://www.vatvalve.com/InvestorRelations/investor-relations/financial-reports
Newsletter subscription: http://www.vatvalve.com/InvestorRelations/investor-relations/newsletter

Notices to shareholders are validly made by publication in the Swiss Official Gazette of Commerce (Schweizerisches Handelsamtsblatt). The Board of Directors may designate further means for official publications. Notices of VAT Group AG to shareholders are to be made by official publications of VAT Group AG. Notices to shareholders may also be made in writing to the addresses of the shareholders recorded in the share register.

# Compensation Report

The Compensation Report describes the compensation principles and programs as well as the governance framework related to the compensation of the Board of Directors (Board) and the members of the Group Executive Committee (GEC) of VAT Group AG. The report also provides details on the compensation awarded to members of the Board and GEC in the 2018 financial year.

The Compensation Report is written in accordance with the Swiss Ordinance against Excessive Compensation with respect to Listed Stock Corporations, the SIX Swiss Exchange Directive on Information relating to Corporate Governance and the principles of the Swiss Code of Best Practice for Corporate Governance of economiesuisse.

## 1. Letter from the Nomination and Compensation Committee

Dear Shareholders,

On behalf of the Board, we are pleased to present VAT's compensation report.

In the reporting year, we welcomed Michael Allison as our new CEO. Mike Allison joined VAT on January 1, 2018 and succeeded Heinz Kundert, who retired as CEO and joined the Board.

VAT looks back on mixed results during financial year 2018. While the company posted record results during the first half of the year, with 18% net sales growth, the results in the second half of the year were slowed down due to the soft market conditions in the semiconductor industry. Overall, VAT posted full-year results with slightly higher net sales of CHF 698 million and an EBITDA margin of 30.8%.

The Board is convinced that VAT's compensation system is key to attracting, motivating and retaining talented people who can strengthen the Company's leading global position in high-end vacuum valve technology. Our aim is to balance fixed and variable compensation and short- and long-term incentives so that management's interests are aligned with those of other stakeholders. In short, we want to create a culture of sustainable value creation.

In 2018, the NCC performed a review of the compensation strategy and programs and established that while no fundamental changes were required, an individual performance component should be introduced in the short-term incentive plan applicable to the members of the GEC. Furthermore, the NCC conducted a benchmarking analysis of the compensation levels of the Board and of the GEC and performed its regular annual activities, such as setting the performance goals and assessing the performance of GEC members, determining the level of compensation of the Board and the GEC, as well as preparing the Compensation Report and the say-on-pay vote for the 2019 AGM. You will find further information on the NCC activities and on VAT's compensation system and governance on the following pages.

This Compensation Report will be submitted to a non-binding, consultative shareholders' vote at the upcoming AGM. You will also be asked to vote on the maximum aggregate compensation amount of the Board for the term of office from the 2019 until the 2020 AGM, on the variable compensation amount to be paid out to GEC members for the financial year 2018, on the maximum aggregate amount of fixed compensation of the GEC for financial year 2020, and on the maximum grant values for the GEC under the long-term incentive plan for financial year 2020.

In the future, we will continue to review our compensation programs to ensure that they support the achievement of our business goals, are aligned to the interests of shareholders and fully comply with the various regulations applying to a Swiss listed company. We trust that you will find this report interesting and informative.

NCC of VAT Group
Haag, March 7, 2019

## 2. Compensation governance

### 2.1. Articles of Association

The Articles of Association of VAT can be found on the corporate website http://www.vatvalve.com/Investor-Relations/investor-relations/corporate-governance/articles-of-association-vat-group-ag and are summarized below in Table 1. The provisions on compensation in the Articles of Association include the principles of compensation applicable to the Board and the GEC, the structure of the shareholders' vote on compensation, the additional compensation amount for GEC members appointed after the approval of the maximum aggregate compensation amount by the shareholders and provisions on credit and loans.

**Table 1: Articles of Association**

| | |
|---|---|
| **Compensation principles (Board) – Article 25** | Members of the Board shall receive a fixed basic fee and fixed fees for memberships in committees of the Board, as well as lump sum compensation for expenses. The compensation may be awarded in cash and in shares. |
| **Compensation principles (GEC) – Article 26** | The compensation of the GEC members consists of a fixed compensation and of variable compensation components, which comprise short-term and long-term compensation elements. The short-term variable compensation is paid in cash and depends on the level of achievement of specific predefined targets for a one-year performance period. The long-term variable compensation is awarded in shares or rights to receive shares. The Board determines the terms and conditions of the long-term variable compensation. |
| **Compensation vote – Article 12** | Shareholders approve the maximum aggregate compensation amount for the Board for the upcoming term until the next ordinary AGM.<br>Shareholders approve the short-term variable compensation of the GEC for the preceding business year, the maximum fixed compensation of the GEC to be paid in the subsequent business year and the maximum long-term variable compensation of the GEC to be granted in the subsequent business year. |
| **Additional compensation amount – Article 29** | For each GEC member newly appointed after the approval by shareholders of the maximum aggregate compensation amount, the company may pay an aggregate compensation of up to 50% of the last aggregate compensation amount approved by the AGM. |
| **Credit and loans – Article 28** | The company shall not grant loans, credits, pension benefits other than from occupational pension funds to the members of the Board or GEC. |

### 2.2. Nomination and Compensation Committee

In accordance with the NCC charter[1], the NCC consists of at least three members of the Board who are elected annually by the shareholders for a term of one year until the next Annual General Meeting. Since the AGM 2018, Martin Komischke (Chairman), Heinz Kundert and Karl Schlegel are members of the NCC.

It is the responsibility of the Nomination and Compensation Committee to:

- periodically review the company's compensation policy and principles applicable to the Board and the GEC,
- annually review and propose to the Board the total compensation of the CEO and other members of the GEC, subject to shareholders' approval,
- prepare all relevant Board proposals and recommendations related to the nomination and compensation of the members of the Board and of the GEC.

Additional information on the responsibilities of the NCC is provided in section 3.9 of the Corporate Governance Report on page 53.

The NCC acts in a preparatory capacity while the Board retains the decision authority on compensation matters, except for the maximum aggregate compensation amounts of the Board and of the GEC, which are subject to shareholders' approval at the AGM. The approval and authority levels of the different bodies on compensation matters are detailed in Table 2.

1 The NCC charter of VAT Group AG is published at http://www.vatvalve.com/InvestorRelations/investor-relations/corporate-governance/ncc-charter-of-vat-group-ag.

**Table 2: Decision authorities in compensation matters**

| | CEO | NCC | Board | AGM |
|---|---|---|---|---|
| Maximum aggregate compensation amount Board | | Proposes | Reviews | Approves |
| Individual compensation of Board members | | Proposes | Approves | |
| Group compensation policy and principles | | Proposes | Approves | |
| Maximum aggregate compensation amount GEC | | Proposes | Reviews | Approves |
| Performance target setting and assessment of CEO | | Proposes | Approves | |
| Performance target setting and assessment of GEC members | Proposes | Reviews | Approves | |
| CEO compensation | | Proposes | Approves | |
| Individual compensation of other GEC members | Proposes | Reviews | Approves | |
| Compensation report | | Proposes | Approves | Consultative vote |

The NCC meets as often as business requires, but at least three times a year. In 2018, the NCC held four formal meetings. Details on meeting attendance of the individual NCC members are provided in section 3.12 of the Corporate Governance Report on page 54.

The Chairman of the NCC reports to the Board on the activities of the Committee after each meeting. The minutes of the NCC meetings are available to all members of the Board. The Chairman of the NCC may decide to invite executives to attend the meetings as appropriate. Executives do not attend the meeting when their own compensation and/or performance are being discussed.

The NCC may decide to consult external advisors for specific compensation matters. In 2018, Agnès Blust Consulting was mandated to provide services related to executive compensation matters and to conduct a benchmark analysis of the compensation of the Board. Willis Towers Watson was mandated to carry out a benchmarking analysis of the compensation of the GEC. These two companies have no other mandates with VAT Group.

## 3. Compensation principles

VAT Group's compensation principles support the Company's business strategy and foster the commitment of all employees to the Company's long-term goals. The compensation principles are:

– internal fairness,
– reward for performance,
– focus on sustainable long-term value creation,
– alignment to shareholders' interest,
– market competitiveness,
– simplicity and transparency.

## 4. Compensation structure: Board of Directors

Members of the Board receive a fixed compensation consisting of both cash and restricted shares, which is aimed at better aligning their economic interests with the long-term interests of shareholders. The compensation period relates to the term of office, which starts with the election at the ordinary AGM and ends at the next ordinary AGM. The amount of the fixed basic fee and the fixed Committee fees reflect the responsibility and time requirement inherent to the function, as illustrated in Table 3. Board members do not receive any performance-based remuneration and do not participate in the occupational pension plans of the VAT Group.

**Table 3: Structure and levels of Board compensation**

| In CHF per year (gross) | Chairman of the Board | Member of the Board |
|---|---|---|
| Fixed basic fee | 200,000 | 75,000 |

| | Chairman of the Committee | Member of the Committee |
|---|---|---|
| Audit Committee (AC) | 25,000 | 10,000 |
| Nomination and Compensation Committee (NCC) | 25,000 | 10,000 |
| Technology Committee | 15,000 | 10,000 |
| VATmotion Committee | 25,000 | 15,000 |

70% of total compensation is awarded in cash and 30% is awarded in restricted shares. The restricted shares are subject to a three-year blocking period during which they cannot be transferred, sold, pledged or otherwise disposed of. The blocking period of the restricted shares can only lapse prior to the predefined date of unblocking (and will do so automatically) in case of death or due to a successful takeover bid or the delisting of the company. Shares remain blocked in any other cases, including if the Board member leaves the office during the blocking period.

In exceptional circumstances, members of the Board may be asked to perform special tasks or projects that go beyond their function and normal duties of their mandate. Such additional work may be compensated at a daily rate of maximum CHF 3,500 (gross) in cash. Further, Board members receive a lump sum expense reimbursement of CHF 1,500 (gross) per annum in cash to cover all expenses that occur in relation to meetings of the Board or its Committees, as well as shareholder meetings.

The cash compensation is paid out on a quarterly basis and the restricted shares are allocated and transferred to each Board member's depository account within one month after the end of the compensation period. The number of restricted shares is determined by dividing 30% of each Board member's compensation by the average closing share price over the last 20 trading days prior to the AGM preceding the payment and rounded up to the next whole number of shares.

The compensation of the Board is periodically benchmarked against the compensation of non-executive Board members of publicly traded companies in Switzerland that are comparable to VAT in terms of size and complexity. In 2018, a thorough review has been conducted by Agnès Blust Consulting in order to determine the competitiveness of the Board compensation in terms of structure and overall level. For this purpose, a peer group of Swiss multinational industrial companies listed on the Swiss Stock Exchange (SIX) has been selected and includes Bachem, Bobst, Burckhardt Compression, Conzzeta, Dätwyler, Georg Fischer, Inficon, Interroll, Landis+Gyr, LEM, OC Oerlikon, SFS, Siegfried, Sulzer, Tecan and U-Blox. This peer group is well balanced in terms of market capitalization, revenue size and headcount. The analysis concluded that while the compensation structure is in line with market practice, the compensation level is generally below market. Nonetheless, the decision has been taken not to change the compensation structure and levels for the compensation period starting at the 2019 AGM.

## 5. Compensation structure: GEC

In 2018, a benchmarking of the GEC compensation was conducted by Willis Towers Watson on the basis of the same peer group of Swiss multinational industrial companies as for the benchmarking of the compensation of the Board: Bachem, Bobst, Burckhardt Compression, Conzzeta, Dätwyler, Georg Fischer, Inficon, Interroll, Landis+Gyr, LEM, OC Oerlikon, SFS, Siegfried, Sulzer, Tecan and U-Blox. The results of this benchmark analysis served as basis to determine the compensation level of the GEC for 2019.

The compensation structure of GEC members consists of several elements: a fixed remuneration comprising an annual base salary (ABS) and benefits, a variable component consisting of an annual cash incentive (Variable Cash Compensation, STI) and a long-term share-based compensation (LTI) as illustrated in Table 4.

**Table 4: Structure of compensation for GEC**

| | Program | Purpose | Plan period |
|---|---|---|---|
| ABS | Monthly cash | Attract and retain | Continuous |
| STI | Cash bonus | Reward annual financial and individual performance | 1 year |
| LTI | Share plan | Reward long-term performance<br>Align to shareholders' interests | 3 years |
| Benefits | Pension and insurances | Protect against risks | Continuous |
| Non-tangible rewards such as work environment and culture, personal development and career opportunities | | | |

### 5.1. Annual base salary

The ABS is a fixed component of compensation paid in cash, typically monthly. It reflects the scope and key responsibilities of the role as well as the qualification and skills required to perform the role, along with the employee's skill set and experience.

The ABS is reviewed annually on the basis of the following factors:

– external benchmark: market value of the role,
– internal benchmark: internal pay structure and internal peer comparison,
– individual profile and past performance of the employee,
– financial considerations such as budget and affordability.

### 5.2. Variable Cash Compensation (STI)

The STI is designed to drive outstanding performance throughout the organization by closely aligning compensation with the achievement of annual financial and non-financial objectives.

The target STI value is expressed as a percentage of ABS and amounts to 50% for the CEO and between 44% and 56% for the other GEC members, assuming they achieve an average performance achievement of 100%. The plan also includes a minimum performance threshold below which the STI payout is zero, and a maximum level of performance above which the payout factor is capped at 150% of the target STI value.

For the GEC members, company performance accounts for 70% of the total STI, while individual performance accounts for 30%.

The company performance conditions are proposed annually by the NCC and approved by the Board. They are directly derived from the business strategy of profitable growth and are illustrated in Table 5. After year-end, the NCC assesses the achievement of those performance measures and calculates the corresponding payout factor, which is subject to Board approval. For the individual performance component, the NCC conducts an assessment of the individual contributions of each GEC member at the end of the year based on a predetermined grid of criteria related to operational performance and to environment, social and governance aspects (as illustrated in Table 6) and proposes the corresponding payout percentage to the Board for approval.

**Table 5: STI key performance indicators for the CEO and other GEC members in 2018**

| Focus in 2018 | Performance objectives | Weighting for the CEO | Weighting for the CFO | Weighting for the COO |
|---|---|---|---|---|
| Growth | Specification wins: number of auditable significant specification wins, co-development agreements, new business models or sales channels | 23.3% | 17.5% | 17.5% |
| Profitability | EBITDA margin | 23.3% | 35% | 17.5% |
| Operations | Internationalization of operations footprint and value chain and global sourcing | 23.4% | 17.5% | 35% |
| Individual performance | Operational results & Environment, Social and Governance (ESG) – see table 6 | 30% | 30% | 30% |
| **Total** | | **100%** | **100%** | **100%** |

**Table 6: STI evaluation grid for individual performance of the CEO and other GEC members in 2018**

| Operational results | Environment, Social and Governance (ESG) |
|---|---|
| **Growth:** entry in new markets, opening of new subsidiaries, development of new products, M&A transactions, key strategic projects to support growth | **Environment:** GHG emission, energy efficiency, mobility programs (business travel), waste reduction, water consumption, etc. |
| **Profitability:** process efficiencies, cost-saving initiatives, pricing, supply chain management, projects to support profitability | **Social:**<br>– **Employees:** health & safety, accident rate, diversity & non-discrimination, working conditions, training & development, employee satisfaction & engagement, turnover, labor rights<br>– **Customers:** customer satisfaction, data privacy, product safety, product quality<br>– **Society:** human rights, philanthropy, impact on local communities<br>– **Supply chain monitoring** |
| | **Governance:**<br>Bribery & corruption, risk management, conflicts of interest |

The STI is paid out in cash, latest by June 30 of the following year.

### 5.3. Long-term share-based compensation (LTI)

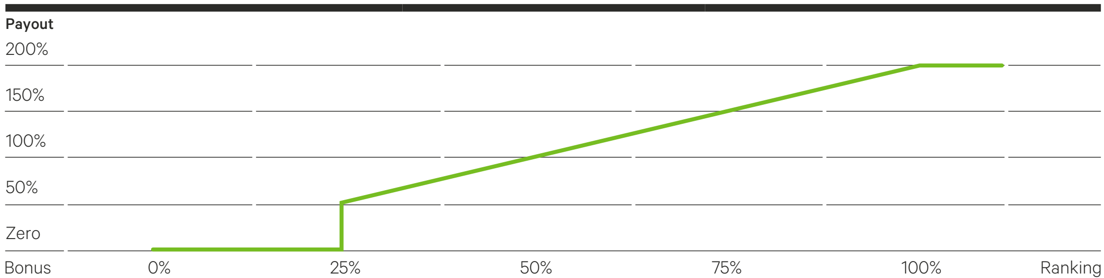
GEC members are also eligible to participate in a LTI plan, designed to motivate executives to create value for the company and its shareholders in a sustainable manner. The LTI is awarded in the form of performance share units (PSU), subject to a three-year cliff vesting period depending on the achievement of the following performance conditions:

– relative net sales growth, with a 50% weight,
– relative total shareholder return (TSR), with a 50% weight.

In 2018, the LTI grant value amounts to 75% of ABS for the CEO and to between 32% and 41% of ABS for the other GEC members. To determine the number of performance share units granted, the LTI grant value is divided by the average daily closing share price of the VAT shares during the 20 trading days preceding the grant date.

At vesting, relative net sales growth and relative TSR performance will be compared to peer companies and expressed as a percentile rank, which determines a payout factor between 0% and 200% as follows:
– ranking below the lower quartile of the peer group (threshold): 0% payout,
– ranking at the lower quartile of the peer group: 25% payout,
– ranking at the median of the peer group: 100% payout,
– ranking at the upper quartile of the peer group: 150% payout,
– ranking as best of the peer group (cap): 200% payout,
– linear interpolation between those points.

**Table 7: Vesting schedule of the LTI**




The weighted average of the two payout factors (relative sales growth and relative TSR) provides for the overall vesting level of the LTI award.

This LTIP is specifically designed for rewarding the performance of VAT relative to a selected peer group of companies. The intention is to reward the relative performance of the company rather than its absolute performance because absolute performance may be strongly impacted by market factors that are outside the control of senior management. The relative performance is measured based on an evaluation provided by an independent Swiss consulting firm, Obermatt.

The peer group is confirmed by the Board prior to the annual grant of performance share units and may be adjusted if required due to corporate events such as merger, acquisition, business combination transaction, delisting or bankruptcy of peer companies. The peer group is illustrated in Table 8.

**Table 8: Peer group for the 2018 grant**

| | | | | |
|---|---|---|---|---|
| Advantest | Applied Materials | ASM international | ASML | Belimo |
| Brooks Automation | Comet | dormakaba | Geberit | Hitachi High-Technologies |
| Inficon | KLA-Tencor | LAM Research | LEM | MKS |
| Pfeiffer Vacuum | SMC | Teradyne | Tokyo Electron | Ulvac |

In case of termination of employment, the performance share units forfeit without any compensation, except in the situation of retirement or disability, in which case the performance share units are subject to a pro rata vesting at regular vesting date or in the situation of death or of change of control with termination of employment or cessation of the LTIP, in which case the performance share units are subject to an immediate pro rata vesting.

### 5.4. Benefits

GEC members participate in the benefit plan available in the country of their employment contract. Benefits consist mainly of retirement, insurance and health care plans that are designed to provide a reasonable level of protection for the employees and their dependents with respect to retirement, risk of disability, death and illness/accident. The current members of the GEC are all employed under a Swiss employment contract. They participate in VAT's pension plan offered to all employees in Switzerland, in which a base salary and the Variable Cash Compensation are insured up to the maximum amount permitted by law. VAT's pension benefits exceed the legal requirements of the Swiss Federal Law on Occupational Retirement, Survivors' and Disability Pension Plans (BVG) and are in line with what other international industrial companies offer.

In addition, GEC members are eligible for standard benefits, such as a representation allowance and other benefits in kind, according to competitive market practice. The monetary value of these other elements of compensation is evaluated at fair value and is disclosed in the compensation tables.

### 5.5. Employment contracts

GEC members are employed under employment contracts of unlimited duration with a notice period of six months. GEC members are not contractually entitled to termination payments, change-of-control provisions (except the accelerated vesting under the LTI plan) or non-competition compensation.

### 5.6. Clawback and malus provisions

Clawback and malus provisions apply on STI and LTI awards for GEC members and other executives: if VAT (or one of its companies) is required to prepare an accounting/financial restatement, the Board will determine the amount of variable compensation that would have been due under the restated financial results. VAT will have the right to forfeit (malus provision) and/or to obtain reimbursement (clawback provision) of any parts of the variable compensation that were paid or granted in excess of the amount so determined. This forfeiture or clawback is limited to accounting/financial restatements of the previous three financial years and to variable compensation whose amount is determined, exclusively or in combination with other performance metrics, on the basis of the financial results and performance of VAT as reported in its financial statements.

## 6. Compensation awarded to the Board and to GEC in 2018

### 6.1. Compensation awarded to the Board in 2018

For 2018, the members of the Board received a total compensation of CHF 815,597 (2017: CHF 637,795) in the form of fixed basic fees of CHF 575,000 (2017: CHF 460,417), committee fees and other expenses of CHF 184,000 (2017: CHF 131,708) and social security contributions of CHF 56,597 (2017: CHF 45,670). Out of the total compensation of CHF 815,597 (2017: CHF 637,795), CHF 225,158 (2017: CHF 175,490) are awarded in form of shares. The increase of 28% compared to previous year is due to the following reasons:

- There were six Board members during the entire year 2018, while there were five Board members until the AGM in previous year (six Board members after the 2017 AGM).
- Two additional Board Committees were created after the AGM 2017, which impacted the Committee fees for the entire year 2018 (impact on seven months in previous year).
- Reported compensation in previous year included the compensation for 11 months only. This is because the term of office from the 2016 AGM to the 2017 AGM encompassed 13 months and the reported annual compensation was spread over 12 months (eight months reported in 2016 and four months reported in 2017). The term of office from the 2017 AGM to the 2018 AGM encompassed 12 months, of which seven were reported in year 2017 and five in year 2018. The term of office from the 2018 AGM to the 2019 AGM encompasses 12 months as well, of which seven are reported in year 2018 and five will be reported in year

2019. Therefore, 12 months compensation are reported in year 2018 (and future years), while only 11 months compensation were reported in year 2017 (unique situation due to the change in timeline of the AGM from April [2016] to May [2017 onwards]).

The compensation system has remained unchanged compared to previous year.

**Table 9: Compensation of the Board in 2018**

| (CHF, gross) | Fixed basic fee | Committee fees | Other payments | Social security | Total compensation | Thereof in shares |
|---|---|---|---|---|---|---|
| Martin Komischke, Chairman | 200,000 | 50,000 | 1,500 | 19,199 | 270,699 | 75,010 |
| Heinz Kundert, Vice-Chairman | 43,750 | 5,833 | 875 | 3,024 | 53,483 | 14,875 |
| Ulrich Eckhardt | 31,250 | 8,333 | 625 | 3,131 | 43,340 | 11,882 |
| Alfred Gantner | 31,250 | | 625 | 2,482 | 34,357 | 9,404 |
| Herman Gerlinger | 75,000 | 30,000 | 1,500 | 7,874 | 114,374 | 31,527 |
| Urs Leinhäuser | 75,000 | 40,000 | 1,500 | 8,895 | 125,395 | 34,548 |
| Karl Schlegel | 75,000 | 35,000 | 1,500 | 8,191 | 119,691 | 33,038 |
| Libo Zhang | 43,750 | 5,833 | 875 | 3,799 | 54,257 | 14,875 |
| **Total** | **575,000** | **175,000** | **9,000** | **56,597** | **815,597** | **225,158** |

At the AGM on May 17, 2017, shareholders approved a maximum aggregate compensation amount of CHF 900,000 for the Board for the compensation period from the AGM 2017 until the AGM 2018. The remuneration paid to the Board for this term was CHF 818,093 and is therefore within the approved limits.

At the AGM of May 17, 2018, shareholders approved a maximum aggregate compensation amount of CHF 920,000 for the Board for the term from the AGM 2018 until the AGM 2019. The remuneration paid to the Board for this term is anticipated to be approximately CHF 820,000. The final amount will be disclosed in the 2019 Compensation Report.

In the year under review, no compensation was paid to former members of the Board or to closely related parties to members or former members of the Board.

No member, former member, or closely related parties of the Board were granted a loan during the reporting year. No loans were outstanding at the end of the year under review.

**Table 10: Compensation of the Board in 2017**

| (CHF, gross) | Fixed basic fee | Committee fees | Other payments | Social security | Total compensation | Thereof in shares |
|---|---|---|---|---|---|---|
| Horst Heidsieck | 50,000 | 8,750 | 375 | 4,169 | 63,294 | 17,623 |
| Martin Komischke | 116,667 | 29,167 | 875 | 11,420 | 158,128 | 43,750 |
| Ulrich Eckhardt | 62,500 | 16,667 | 1,250 | 6,262 | 86,679 | 23,748 |
| Alfred Gantner | 62,500 | 0 | 1,250 | 4,965 | 68,715 | 18,743 |
| Herman Gerlinger | 43,750 | 17,500 | 875 | 4,838 | 66,963 | 18,375 |
| Urs Leinhäuser | 62,500 | 29,583 | 1,250 | 7,267 | 100,600 | 27,633 |
| Karl Schlegel | 62,500 | 22,917 | 1,250 | 6,749 | 93,415 | 25,620 |
| **Total** | **460,417** | **124,583** | **7,125** | **45,670** | **637,795** | **175,490** |

### 6.2. Compensation awarded to the GEC in 2018

In 2018, the members of the GEC received a total compensation of CHF 3 million (2017: CHF 2.2 million). This amount comprises annual base salaries of CHF 1.1 million (2017: CHF 1.0 million), Variable Cash Compensation (STI) of CHF 0.5 million (2017: CHF 0.4 million), other expenses of CHF 0.3 million (2017: CHF 27,200), contributions to social security and post-employment benefits of CHF 0.4 million (2017: CHF 0.3 million) and an LTI grant value of CHF 0.7 million (2017: CHF 0.4 million). The variable compensation amounts to 68% (2017: 68%) of the fixed compensation for the CEO and 71% (2017: 58%) on average for the other GEC members.

**Table 11: Compensation of the GEC in 2018**

| (CHF, gross) | ABS | Other payments[1] | Pension & social security (fixed) | Total fixed compensation | STI payout[2] | LTI grant[3] | Total compensation[4] |
|---|---|---|---|---|---|---|---|
| Michael Allison | 450,000 | 205,133 | 170,649 | 825,782 | 222,825 | 335,691 | 1,384,298 |
| Other GEC | 700,000 | 52,309 | 217,488 | 969,797 | 326,167 | 364,833 | 1,660,797 |
| **Total GEC[1]** | **1,150,000** | **257,442** | **388,138** | **1,795,579** | **548,992** | **700,524** | **3,045,095** |

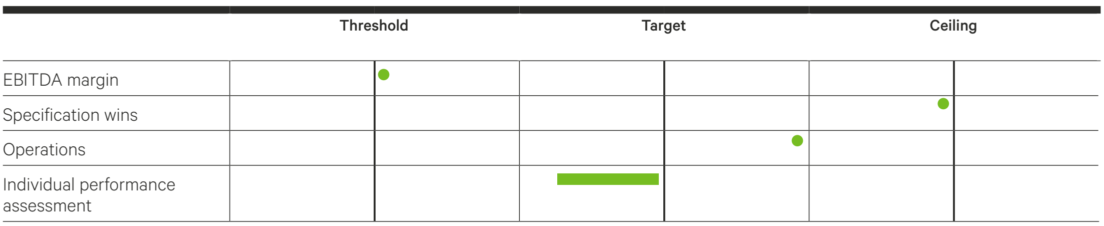
1 Includes the value of benefits in kind and the payment of remaining vacation days for GEC members who left the company. For the CEO, includes relocation cost as well as a replacement award of CHF 160,000 (CHF 85,000 in cash and C HF 75,000 in shares restricted for three years) for compensation forfeited at the previous employer as a result of joining VAT Group
2 STI for 2018 that will be paid out until June 30, 2019
3 Grant value of the LTI granted in the reporting year. Includes the entire LTI grant value for the former CEO, despite the fact that the majority of the PSUs (11/12) are forfeited due to retirement
4 All compensation amounts are disclosed gross

### Explanatory comments to the compensation table

The total annual base salary of the GEC increased by 16% overall. This is due to the fact that a new CEO was hired effective January 1, 2018, while the former CEO was still employed until March 31, 2018 (transition period of three months). Annual base salaries of other GEC members remained unchanged compared to previous year.

The STI payout increased by 28% compared to previous year. While the overall performance achievement under the STI was lower than in the previous year, with an overall payout factor of 95% (compared to 100% in the previous year), the STI target value was higher due to the change in GEC composition (new CEO as of January 1, 2018, transition period with the former CEO until March 31, 2018). The overall performance achievement of 95% was driven by an outperformance on the company's objectives of growth (specification wins) and operations (internationalization of operations footprint and value chain, global sourcing), while the EBITDA target has not fully been met and while the assessment of individual performance ranged from 84% to 99% of target for the GEC members.

**Table 12: summary of 2018 performance for the STI**




The LTI grant value amounted to CHF 0.7 million (compared to CHF 0.4 million in previous year). The increase is due to the change in GEC composition and to the fact that both the new CEO and the former CEO received an LTI grant in the reporting year. The grant of the former CEO will only vest on a pro rata basis as per plan rules in case of retirement, however the full value at grant has been disclosed. There was no LTI vesting in 2018 considering that the first PSU under the LTI were granted in 2017 and will vest at the end of 2019.

The “other” payments increased by CHF 230,242. This is mainly due to the payment made to the new CEO upon joining, including the cost of his relocation to Switzerland and the payment of a replacement award of CHF 160,000 (of which CHF 85,000 were paid in cash and CHF 75,000 in shares restricted for three years) for compensation forfeited at his previous employer as a result of joining VAT Group.

The social security and pension contributions remained comparable to the previous year.

The total fixed compensation of CHF 1.8 million (including pension and social security contributions) awarded for the financial year 2018 exceeds the maximum aggregate compensation amount of CHF 1.55 million approved by the shareholders. This is due to the appointment of the new CEO after the approval of the compensation amount by the shareholders. Pursuant to the provisions of the Articles of Association (article 29), for each GEC member newly appointed after the shareholders’ approval of the maximum aggregate compensation amount, the company may pay an additional compensation amount of up to 50% of the last compensation amount approved by the shareholders. For 2018, the additional amount as defined in the Articles of Association allows for a potential additional amount of CHF 775,000 for the fixed compensation of each new GEC member. The compensation of the new CEO, Mike Allison, appointed on 1 January 2018, was first allocated in the amount of CHF 580,203 to the approved maximum aggregate compensation amount of CHF 1.55 million and then in the amount of CHF 245,580 against the additional compensation amount.

The aggregate grant value of CHF 700,524 million awarded under the LTIP is within the maximum amount of CHF 1.1 million approved by the shareholders.

The variable cash compensation of CHF 0.5 million will be submitted to shareholders’ vote at the 2019 AGM.

In the year under review, no compensation was paid to former members of the GEC or to closely related parties to members or former members of the GEC.

No member or former member of the GEC was granted a loan during the reporting year. No loans were outstanding at the end of the year under review.

**Table 13: Compensation of the GEC in 2017**

| (CHF, gross) | ABS | Other payments | Pension & social security (fixed) | Total fixed compensation | STI payout[2] | LTI grant[3] | Total compensation |
|---|---|---|---|---|---|---|---|
| Heinz Kundert | 400,000 | 0 | 138,404 | 538,404 | 200,000 | 158,214 | 896,618 |
| Other GEC | 591,667 | 27,200 | 194,114 | 812,981 | 230,555 | 237,322 | 1,280,858 |
| **Total GEC[1]** | **991,667** | **27,200** | **332,518** | **1,351,385** | **430,555** | **395,536** | **2,177,476** |

1 All compensation amounts are disclosed gross
2 STI for 2017 that will be paid out until June 30, 2018
3 Grant value of the LTI granted in the reporting year

## 7. Shareholdings as of December 31, 2018

At the end of 2018, members of the Board held a total of 108,599 (2017: 38,772) registered shares of VAT Group AG[2]. GEC members held a total of 102,859 (2017: 139,690) registered shares of VAT Group AG and a total of 7,621 (2017: 3,900) performance share units.

The details on shareholdings of the members of the Board and the GEC is included in note 4.3 of the statutory financial statements of VAT Group AG on page 135 of the Annual Report.

At the end of 2018, members of the Board and the GEC did not hold any stock options.

2 In addition, Heinz Kundert owns 770 performance share units from the LTI plan that were awarded to him in his previous function as CEO.

KPMG

# Report of the Statutory Auditor

**To the General Meeting of Shareholders of VAT Group AG, Sennwald**

We have audited the remuneration report dated 7 March 2019 of VAT Group AG 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 contained in the tables 9 and 10 "Compensation of the Board in 2018 and 2017" on page 70 and tables 11 and 13 "Compensation of the GEC in 2018 and 2017" on pages 71 and 73 of section 6 of the compensation report.

**Responsibility of the Board of Directors**

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 for the year ended 31 December 2018 of VAT Group AG complies with Swiss law and articles 14 – 16 of the Ordinance.

KPMG AG

| | |
|---|---|
| Toni Wattenhofer<br>Licensed Audit Expert<br>Auditor in Charge | Jan Bellinger<br>Licensed Audit Expert |

St. Gallen, 7 March 2019

# Financial Statements



Due to rounding, numbers presented throughout this report may not add up precisely to the totals provided.

# Consolidated financial statements for the financial year from January 1 to December 31, 2018

## Consolidated income statement

| January 1–December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| **Net sales** | **6,7** | **698,136** | **692,415** |
| Raw materials and consumables used | | –257,350 | –310,081 |
| Changes in inventories of finished goods and work in progress | | –21,248 | 49,537 |
| Personnel expenses | 8 | –148,596 | –156,917 |
| Other income | 9 | 8,588 | 5,244 |
| Other expenses | 10 | –64,291 | –67,987 |
| **Earnings before interest, taxes, depreciation and amortization (EBITDA)[1]** | | **215,239** | **212,211** |
| Depreciation and amortization | 18,19,20 | –35,558 | –33,466 |
| **Earnings before interest and taxes (EBIT)[1]** | | **179,682** | **178,745** |
| Finance income | 11 | 390 | 481 |
| Finance costs | 11 | –13,580 | –44,548 |
| **Earnings before income taxes** | | **166,491** | **134,678** |
| Income tax expenses | 12 | –30,804 | –19,001 |
| **Net income attributable to owners of the Company** | | **135,687** | **115,677** |
| **Earnings per share (in CHF)** | | | |
| Basic earnings per share | 29 | 4.53 | 3.86 |
| Diluted earnings per share | 29 | 4.52 | 3.86 |

1 Interest includes other items reported in the financial results.

# Consolidated statement of comprehensive income

| January 1–December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| Net income attributable to owners of the Company | | 135,687 | 115,677 |
| | | | |
| **Other comprehensive income** | | | |
| **Items that will not be reclassified to profit or loss:** | | | |
| Remeasurements of defined benefit obligations | 26 | –12,273 | 1,917 |
| Related tax | 12 | 1,878 | –721 |
| **Subtotal** | | **–10,395** | **1,196** |
| | | | |
| **Items that are or may be subsequently reclassified to profit or loss:** | | | |
| Changes in the fair value of hedging reserves | | –283 | 3,377 |
| Related tax | 12 | 43 | –608 |
| Currency translation adjustments | | 426 | 46,036 |
| **Subtotal** | | **186** | **48,805** |
| | | | |
| **Other comprehensive income for the period (net of tax)** | | **–10,209** | **50,001** |
| **Total comprehensive income for the period attributable to owners of the Company** | | **125,478** | **165,677** |

The above consolidated income statement and consolidated statement of comprehensive income should be read in conjunction with the accompanying notes, which can be found in the VAT annual report page 82ff.

# Consolidated balance sheet

| **As of December 31**<br>**In CHF thousand** | **Note** | **2018** | **2017** |
|---|---|---|---|
| **Assets** | | | |
| Cash and cash equivalents | 13 | 79,063 | 72,021 |
| Trade and other receivables | 14 | 94,778 | 122,590 |
| Derivative financial instruments | 15 | 280 | 1,150 |
| Prepayments and accrued income | 16 | 3,127 | 2,717 |
| Financial assets at fair value through profit and loss | | 34 | 36 |
| Inventories | 17 | 104,158 | 110,744 |
| Current tax assets | 12 | 4 | 491 |
| **Current assets** | | **281,442** | **309,749** |
| Property, plant and equipment | 18 | 170,524 | 147,751 |
| Investment properties | 19 | 1,873 | 1,923 |
| Intangible assets and goodwill | 20 | 505,614 | 517,213 |
| Trade and other receivables | 14 | 1,965 | 6,086 |
| Derivative financial instruments | 15 | 23 | 0 |
| Deferred tax assets | 12 | 6,746 | 8,411 |
| **Non-current assets** | | **686,745** | **681,384** |
| **Total assets** | | **968,187** | **991,133** |

| As of December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| **Liabilities** | | | |
| Trade and other payables | 22 | 44,568 | 92,820 |
| Loans and borrowings | 21 | 27,608 | 55,764 |
| Provisions | 25 | 2,577 | 1,802 |
| Derivative financial instruments | 15 | 1,539 | 1,836 |
| Accrued expenses and deferred income | 23 | 20,739 | 21,366 |
| Liabilities from government grants | 24 | 453 | 471 |
| Current tax liabilities | 12 | 24,094 | 24,371 |
| **Current liabilities** | | **121,579** | **198,430** |
| Loans and borrowings | 21 | 199,078 | 160,000 |
| Derivative financial instruments | 15 | 23 | 291 |
| Liabilities from government grants | 24 | 545 | 1,034 |
| Other non-current liabilities | | 199 | 201 |
| Deferred tax liabilities | 12 | 42,829 | 45,845 |
| Defined benefit obligations | 26 | 39,763 | 27,325 |
| **Non-current liabilities** | | **282,438** | **234,696** |
| **Total liabilities** | | **404,017** | **433,126** |
| | | | |
| **Equity** | | | |
| Share capital | 28 | 3,000 | 3,000 |
| Share premium | 28 | 253,891 | 373,823 |
| Reserves | 28 | –21,300 | –11,090 |
| Treasury shares | 28 | –687 | –790 |
| Retained earnings | | 329,266 | 193,064 |
| **Total equity attributable to owners of the Company** | | **564,170** | **558,007** |
| **Total liabilities and equity** | | **968,187** | **991,133** |

The above consolidated balance sheet should be read in conjunction with the accompanying notes, which can be found in the VAT annual report page 82ff.

# Consolidated statement of changes in equity

| In CHF thousand | Share capital | Share premium | Remeasure-ments of DBO[1] | Other reserves | Hedging reserves | Translation reserves | Treasury shares | Retained earnings | Total equity |
|---|---|---|---|---|---|---|---|---|---|
| **VAT Group AG<br>Equity as of 01.01.2017** | **3,000** | **493,745** | **–16,839** | **2,455** | **–3,595** | **–43,111** | **–4,950** | **79,943** | **510,649** |
| Net income attributable to owners of the Company | | | | | | | | 115,677 | 115,677 |
| Total comprehensive income for the period attributable to owners of the Company | | | 1,196 | | 2,769 | 46,036 | | | 50,001 |
| Dividend payment | | –119,923 | | | | | | | –119,923 |
| Share-based payments (net of tax) | | | | | | | 4,160 | –2,556 | 1,604 |
| **Equity as of 31.12.2017** | **3,000** | **373,823** | **–15,643** | **2,455** | **–826** | **2,925** | **–790** | **193,064** | **558,007** |
| **VAT Group AG<br>Equity as of 01.01.2018** | **3,000** | **373,823** | **–15,643** | **2,455** | **–826** | **2,925** | **–790** | **193,064** | **558,007** |
| Adjustment on initial application of IFRS 9 (net of tax)[2] | | | | | | | | –31 | –31 |
| **Restated equity as of 01.01.2018** | | | | | | | | **193,033** | **557,976** |
| Net income attributable to owners of the Company | | | | | | | | 135,687 | 135,687 |
| Total comprehensive income for the period attributable to owners of the Company | | | –10,395 | | –241 | 426 | | | –10,209 |
| Dividend payment | | –119,932 | | | | | | | –119,932 |
| Share-based payments (net of tax) | | | | | | | 103 | 546 | 649 |
| **Equity as of 31.12.2018** | **3,000** | **253,891** | **–26,038** | **2,455** | **–1,067** | **3,351** | **–687** | **329,266** | **564,170** |

1 DBO: Defined benefit obligations
2 The Group has initially applied IFRS 9 at 01.01.2018 (see also note 3). Under the transition methods chosen, comparative information is not restated.

The above consolidated statement of changes in equity should be read in conjunction with the accompanying notes, which can be found in the VAT annual report page 82ff.

# Consolidated statement of cash flows

| January 1–December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| **Net income attributable to owners of the Company** | | **135,687** | **115,677** |
| Adjustments for: | | | |
| Depreciation and amortization | 18,19,20 | 35,558 | 33,466 |
| (Profit)/loss from disposal of property, plant and equipment | 9,10 | 166 | 168 |
| Change in defined benefit liability | | –5 | 807 |
| Net impact from foreign exchange | | –4,410 | –3,143 |
| Income tax expenses | 12 | 30,804 | 19,001 |
| Net finance costs | 11 | 13,190 | 44,067 |
| Other non-cash-effective adjustments | | 197 | 1,138 |
| Change in trade and other receivables | | 32,459 | –24,033 |
| Change in prepayments and accrued income | | –446 | –1,992 |
| Change in inventories | | 6,294 | –53,200 |
| Change in trade and other payables | | –47,198 | 41,096 |
| Change in accrued expenses and deferred income | | –550 | 3,337 |
| Change in provisions | | 779 | 546 |
| Cash generated from operations | | 202,524 | 176,934 |
| Income taxes paid | | –30,813 | –21,342 |
| **Cash flow from operating activities** | | **171,711** | **155,593** |
| Purchases of property, plant and equipment | 18 | –41,953 | –43,774 |
| Proceeds from sale of property, plant and equipment | | 230 | 144 |
| Purchases of intangible assets | 20 | –6,245 | –3,804 |
| Loans granted or repaid | | 0 | 214 |
| Interest received | 11 | 122 | 78 |
| Other finance income received | | 0 | 4 |
| **Cash flow from investing activities** | | **–47,845** | **–47,137** |
| Proceeds from borrowings[1] | 21 | 223,936 | 115,000 |
| Repayments of borrowings | 21 | –214,678 | –89,847 |
| Dividend paid | 28 | –119,932 | –119,923 |
| Interest paid | | –4,308 | –4,083 |
| Other finance expenses paid | | –1,423 | –694 |
| **Cash flow from financing activities** | | **–116,406** | **–99,547** |
| **Net increase/(decrease) in cash and cash equivalents** | | **7,460** | **8,909** |
| Cash and cash equivalents at beginning of period | | 72,021 | 62,642 |
| Effect of movements in exchange rates on cash held | | –418 | 469 |
| **Cash and cash equivalents at end of period** | | **79,063** | **72,021** |

1 Includes financing costs in the amount of CHF 1.1 million (prior year: CHF 0.0 million)

The above consolidated statement of cash flows should be read in conjunction with the accompanying notes, which can be found in the VAT annual report page 82ff.

# Notes to the consolidated financial statements

## 1. General information

VAT Group AG ("the Company") is a limited liability company incorporated in accordance with Swiss law. The registered office of the Company is Seelistrasse 1, CH-9469 Haag, Switzerland.

The consolidated financial statements as at and for the year ended December 31, 2018 comprise VAT Group AG and all companies under its control (together referred to as "VAT" or "Group").

These consolidated financial statements were authorized for issue by the Group's Board of Directors on March 7, 2019.

## 2. Basis of accounting

The consolidated financial statements of the Group have been prepared in accordance with IFRS.

These consolidated financial statements have been prepared on the historical cost basis, except for items that are required to be accounted for at fair value (e.g. derivative financial instruments) and the defined benefit liability which is measured at the present value of the defined benefit obligation less the fair value of plan assets.

The accounting policies adopted are consistent with those of the previous financial year, except for the changes related to revenues from contracts with customers and financial instruments. These accounting policies have changed as of January 1, 2018, due to the adoption of the new IFRS standards IFRS 9 "Financial Instruments" and IFRS 15 "Revenue from Contracts with Customers." Additionally, a number of standards have been modified on miscellaneous points with effect from January 1, 2018. None of these amendments had a material effect on the Group's financial statements.

Details to the Group's accounting policies are included in note 37.

## 3. Changes in accounting policies

The new standard IFRS 9 "Financial Instruments" changes the classification and measurement of financial assets and liabilities as well as the accounting for impairment and hedges. The impairment of financial assets, including trade receivables, is now assessed using an expected credit loss model. The first-time adoption of IFRS 9 reduced equity on January 1, 2018 by CHF 0.03 million (net of tax) due to this new model. The adoption of IRFS 9 has not a significant effect on the Group's accounting policies related to financial liabilities and derivative financial instruments. The impact on the classification and measurement of financial assets and liabilities is set out in the following table.

| Financial assets<br>In CHF thousand | Original classification under IAS 39 | New classification under IFRS 9 | Original carrying amount under IAS 39 | New carrying amount under IFRS 9 |
|---|---|---|---|---|
| Cash and cash equivalents | Loans and receivables | Amortized cost | 72,021 | 72,021 |
| Trade and other receivables | Loans and receivables | Amortized cost | 116,215 | 116,178 |
| Accrued income | Loans and receivables | Amortized cost | 1,068 | 1,068 |
| Equity securities | Held-for-trading | FVTPL | 36 | 36 |
| Forward exchange contracts | Fair value – hedging instrument | Fair value – hedging instrument | 1,150 | 1,150 |

| Financial liabilities In CHF thousand | Original classification under IAS 39 | New classification under IFRS 9 | Original carrying amount under IAS 39 | New carrying amount under IFRS 9 |
|---|---|---|---|---|
| Trade and other payables | Other financial liabilities | Other financial liabilities | 81,189 | 81,189 |
| Accrued expenses | Other financial liabilities | Other financial liabilities | 6,808 | 6,808 |
| Other non-current liabilities | Other financial liabilities | Other financial liabilities | 201 | 201 |
| Loans and borrowings | Other financial liabilities | Other financial liabilities | 215,764 | 215,764 |
| Forward exchange contracts | Fair value – hedging instrument | Fair value – hedging instrument | 2,127 | 2,127 |

IFRS 15 establishes a comprehensive framework for determining whether, how much and when revenue is recognized. It replaces IAS 18 "Revenue", IAS 11 "Construction Contracts" and related interpretations. The Group has adopted IFRS 15 using the cumulative effect method (without practical expedients), with no material impact on the consolidated financial statements. Due to the transition methods chosen by the Group in applying these standards, comparative information throughout these financial statements have not been restated to reflect the requirements of the new standards.

A number of other standards have been modified on miscellaneous points with effect from January 1, 2018. None of these amendments had a material effect on the Group's financial statements.

## 4. Use of judgments and estimates

In preparing these consolidated financial statements, management has made judgments, estimates and assumptions that affect the application of the Group's accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from estimates. Estimates and underlying assumptions are reviewed frequently. Revisions to estimates are recognized prospectively. Important estimates and assumptions with the related uncertainties were primarily made in the following areas:

a) intangible assets and goodwill, see note 20,
b) property, plant and equipment, see note 18,
c) income taxes, see note 12,
d) employee benefits, see note 26,
e) provisions, see note 25.

## 5. Functional and presentation currency

These consolidated financial statements are presented in Swiss Francs, which is the Company's functional currency. All amounts have been rounded to the nearest thousand, unless otherwise indicated.

## 6. Segment information

### Background

The segment information is presented as provided to the Board of Directors and the Group Executive Committee in their role as Chief Operating Decision Maker (CODM).

### Basis of segmentation

The Group is divided into and managed on the basis of three reporting segments. The segments are identified based on the products and services provided: Valves, Global Service and Industry.

- **Valves:** The Valves segment is a global developer, manufacturer and supplier of vacuum valves for the semiconductor, displays, photovoltaics and vacuum coating industries as well as for the industrial and research sector.

- **Global Service:** Global Service provides local expert support to customers and offers genuine spare parts, repairs and upgrades.
- **Industry:** The Industry segment combines the activities of Comvat and Sysmec. Comvat is one of the leaders in the production of edge-welded bellows and specialized in automating processes. Sysmec is well situated in the machining ancillary industry and offers manufacturing parts and mechanical components in the medium service range.

**Corporate and eliminations**

Inter-company transactions, balances, income and expenses between segments are eliminated and reported in the column "Corporate and eliminations." In addition, this column contains figures relating to the cross functions Corporate Research, Corporate Quality, Corporate Finance, HR and IT.

While net sales in the segments Valves and Industry only arise from sales of goods, net sales in the segment Global Service of CHF 19.2 million (prior year: CHF 16.2 million) came from sales of services.

The segment information provided to the CODM is measured in a manner consistent with that of the financial statements. Interest income and expenditure are not allocated to segments, as this type of activity is driven by the central treasury function, which manages the cash position of the Group. Therefore, a profit measure based on EBITDA is reported by segment. Sales between segments are carried out at arm's length and are eliminated on consolidation. Sales from Valves to Global Service are also included as inter-segment sales. Segment assets are measured in the same way as in the financial statements and allocated based on the operations of the segment and the physical location of the asset.

## Information about reportable segments

| January 1–December 31, 2018<br>In CHF thousand | Valves | Global Service | Industry | Total segments | Corporate and eliminations | Total |
|---|---|---|---|---|---|---|
| Net sales | 551,051 | 105,770 | 41,315 | 698,136 | – | 698,136 |
| Inter-segment sales | 44,417 | – | 21,897 | 66,314 | –66,314 | – |
| **Segment net sales** | **595,468** | **105,770** | **63,212** | **764,450** | **–66,314** | **698,136** |
| **Segment EBITDA** | **192,357** | **49,634** | **8,387** | **250,379** | **–35,139** | **215,239** |

| January 1–December 31, 2017<br>In CHF thousand | Valves | Global Service | Industry | Total segments | Corporate and eliminations | Total |
|---|---|---|---|---|---|---|
| Net sales | 554,236 | 98,724 | 39,454 | 692,415 | – | 692,415 |
| Inter-segment sales | 41,085 | – | 22,643 | 63,728 | –63,728 | – |
| **Segment net sales** | **595,322** | **98,724** | **62,097** | **756,143** | **–63,728** | **692,415** |
| **Segment EBITDA** | **188,637** | **47,626** | **13,366** | **249,628** | **–37,417** | **212,211** |

| As of December 31, 2018<br>In CHF thousand | Valves | Global Service | Industry | Total segments | Corporate and eliminations | Total |
|---|---|---|---|---|---|---|
| Segment assets | 655,632 | 121,597 | 86,829 | 864,059 | 1,873 | 865,932 |
| Segment liabilities | 24,412 | 2,720 | 3,696 | 30,828 | 84 | 30,912 |
| **Segment net operating assets** | **631,220** | **118,877** | **83,133** | **833,231** | **1,789** | **835,020** |
| Of which net trade working capital | 121,832 | 15,187 | 20,074 | 157,093 | –84 | 157,009 |

| As of December 31, 2017<br>In CHF thousand | Valves | Global Service | Industry | Total segments | Corporate and eliminations | Total |
|---|---|---|---|---|---|---|
| Segment assets | 674,019 | 128,765 | 81,604 | 884,388 | 1,923 | 886,311 |
| Segment liabilities | 67,174 | 6,264 | 6,726 | 80,164 | 106 | 80,270 |
| **Segment net operating assets** | **606,845** | **122,501** | **74,878** | **804,224** | **1,817** | **806,041** |
| Of which net trade working capital | 108,604 | 15,834 | 14,822 | 139,260 | –106 | 139,154 |

Net operating assets by reportable segment include trade receivables, inventories, property, plant and equipment, investment properties, intangible assets and goodwill as well as trade payables. Intangible assets and goodwill are allocated to the segments based on quotes defined as a result of the purchase price allocation.

## Reconciliation of segment results to income statement and balance sheet

### Income statement

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Segment EBITDA | 250,379 | 249,628 |
| Corporate and eliminations | –35,139 | –37,417 |
| Depreciation and amortization | –35,558 | –33,466 |
| Finance costs net | –13,190 | –44,067 |
| **Earnings before income taxes** | **166,491** | **134,678** |

### Assets

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Segment assets | 864,059 | 884,388 |
| Corporate and eliminations | 1,873 | 1,923 |
| Cash and cash equivalents | 79,063 | 72,021 |
| Other assets[1] | 23,192 | 32,800 |
| **Assets** | **968,187** | **991,133** |

### Liabilities

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Segment liabilities | 30,828 | 80,164 |
| Corporate and eliminations | 84 | 106 |
| Loans and borrowings | 226,686 | 215,764 |
| Other liabilities[2] and provisions | 146,419 | 137,092 |
| **Liabilities** | **404,017** | **433,126** |

1 The main positions included in other assets are other receivables and deferred tax assets.
2 Only trade payables are allocated to segments.

### Geographic information

#### Net sales

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Switzerland | 10,043 | 7,487 |
| Europe excl. Switzerland | 98,739 | 88,686 |
| USA | 227,292 | 228,750 |
| Japan | 110,208 | 103,706 |
| Korea | 64,603 | 96,583 |
| Singapore | 73,236 | 76,876 |
| Asia excl. Japan, Korea and Singapore | 100,639 | 74,771 |
| Other | 13,377 | 15,555 |
| **Total** | **698,136** | **692,415** |

No other individual country represented more than 10% of net sales in 2018 and 2017.

#### Non-current assets

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Switzerland | 610,942 | 621,575 |
| Europe excl. Switzerland | 8,873 | 10,285 |
| USA | 2,944 | 3,564 |
| Asia | 55,252 | 31,463 |
| **Total** | **678,011** | **666,887** |

Non-current assets by location include property, plant and equipment, investment properties, intangible assets and goodwill. No other individual country represented more than 10% of non-current assets in 2018 and 2017.

#### Major customers

Revenues from two customers of the Group's Valves, Global Service and Industry segments represented approximately 19% and 16% (prior year: two customers represented approximately 20% and 18%) of the Group's total revenues.

## 7. Revenue

In the following table, revenue from contracts with customers is disaggregated by net sales by region and reportable segments. The table also includes a disaggregation of order intake by segments.

#### Disaggregation of order intake and net sales

| January 1 – December 31, 2018<br>In CHF thousand | Valves | Global Service | Industry | Total |
|---|---|---|---|---|
| **Order intake** | 497,468 | 108,376 | 42,184 | 648,028 |
| **Net sales by region** | | | | |
| Asia | 286,638 | 51,660 | 10,388 | 348,686 |
| Americas | 185,595 | 39,245 | 4,830 | 229,669 |
| EMEA | 78,819 | 14,866 | 26,096 | 119,781 |
| **Net sales** | 551,051 | 105,770 | 41,315 | 698,136 |

## 8. Personnel expenses

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Wages and salaries | 124,444 | 130,953 |
| Social security costs[1] | 19,266 | 20,217 |
| Other personnel expenses | 4,886 | 5,747 |
| **Total personnel expenses** | **148,596** | **156,917** |
| **Number of employees (FTE)** | **1,712** | **1,946** |

1 Pension costs are included within the line item "Social security costs". In prior year, pensions costs were disclosed separately.

## 9. Other income

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Net foreign exchange gains on operating and investing activities | 2,777 | 2,301 |
| Work performed by the entity and capitalized | 3,919 | 1,568 |
| Rental income from investment properties | 88 | 91 |
| Change in provision for impairment on trade receivables[1] | 167 | 277 |
| Gains from sale of fixed assets | 96 | 0 |
| Other income | 1,540 | 1,008 |
| **Total other income** | **8,588** | **5,244** |

1 Change in provision for impairment on trade receivables was reclassified from line "other income" to a separate line item.

## 10. Other expenses

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Marketing and advertising | 1,173 | 1,413 |
| Distribution | 7,346 | 7,434 |
| Office rent | 2,543 | 2,524 |
| Administrative expenses | 16,064 | 13,265 |
| Travel expenses | 4,586 | 6,030 |
| Repair and maintenance | 15,737 | 18,095 |
| Energy and supplies | 7,839 | 7,548 |
| Insurance, duties and other charges | 2,126 | 2,106 |
| Losses from sale of fixed assets | 263 | 168 |
| Research and development expenses[1] | 2,035 | 3,772 |
| Other operating expenses | 4,579 | 5,632 |
| **Total other expenses** | **64,291** | **67,987** |

1 Includes only third-party expenses.

## 11. Finance income and costs

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Interest income | 122 | 78 |
| Finance lease income | 266 | 390 |
| Other finance income | 2 | 12 |
| **Finance income** | **390** | **481** |
| Interest expenses | –5,094 | –5,129 |
| Net foreign exchange losses on financing activities[1] | –7,041 | –37,141 |
| Fair value losses from derivatives not qualifying as hedges | 0 | –962 |
| Other finance expenses | –1,445 | –1,316 |
| **Finance costs** | **–13,580** | **–44,548** |
| **Total finance result** | **–13,190** | **–44,067** |

1 Prior year: including recycling of translation reserves in the amount of CHF 38.3 million due to simplification of legal structure

## 12. Tax

The Group is subject to income taxes in numerous jurisdictions. As of December 31, 2018, the net current tax liabilities amounted to CHF 24.1 million (prior year: CHF 23.9 million) and the net deferred tax liabilities to CHF 36.1 million (prior year: CHF 37.4 million). Significant judgment is required in determining the worldwide provision for income taxes. There are many transactions and calculations for which the ultimate tax determination is uncertain during the ordinary course of business. The Group recognizes liabilities for anticipated tax audit issues based on estimates of whether additional taxes will be due. Where the final tax outcome of these matters is different from the amounts that were initially recorded, such differences will impact income taxes in the period in which such determination is made.

### Income tax expenses

This note provides an analysis of the Group's income tax expenses, shows what amounts are recognized directly in equity and how the tax expense is affected by non-assessable and non-deductible items. It also explains significant estimates made in relation to the Group's tax position.

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Current tax: | | |
| Current tax on earnings for the period | 30,012 | 29,118 |
| Adjustments in respect of prior periods | 219 | –256 |
| **Total current tax** | **30,231** | **28,862** |
| Change in temporary differences | 573 | –9,860 |
| **Total deferred tax** | **573** | **–9,860** |
| **Income tax expense** | **30,804** | **19,001** |

The tax on the Group's profit before tax differs from the theoretical amount that would arise using the weighted average tax rate applicable to profits of the consolidated entities as follows:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Earnings before income taxes | 166,491 | 134,678 |
| **Tax at the average group tax rate of 17.6% (previous year: 18.0%)[1]** | **29,245** | **24,296** |
| Effect of tax rates in foreign jurisdictions[1] | –434 | –1,973 |
| Effect in change of tax rate | –1,668 | –7,351 |
| Expenses not deductible for tax purposes[2] | 2,519 | 7,706 |
| Income not subject to tax | –124 | –3,034 |
| Used tax losses carried forwards | –841 | 0 |
| Effect of current-year losses for which no deferred tax asset is recognized | 1,186 | 794 |
| Effect of (recognition)/derecognition of loss carry-forwards | 298 | –1,900 |
| Withholding taxes included in the tax expenses | 821 | 501 |
| Other tax effects | –198 | –37 |
| **Total tax expenses recorded in consolidated income statement** | **30,804** | **19,001** |
| **Effective tax rate** | **18.5%** | **14.1%** |

1 The applicable tax is determined using the average statutory tax rate applicable to the Group, calculated on a weighted average basis ignoring algebraic signs. Therefore, the effect of tax rates in foreign jurisdictions is disclosed.
2 Prior year: includes CHF 6.9 million tax effect from the recycling of translation reserves

The following deferred taxes were (charged)/credited to other comprehensive income during the period:

| January 1–December 31, 2018<br>In CHF thousand | Before tax | Tax (expense)/ benefit | Net of tax |
|---|---|---|---|
| Remeasurements of defined benefit obligations | –12,273 | 1,878 | –10,395 |
| Changes in the fair value of hedging reserves | –283 | 43 | –241 |

| January 1–December 31, 2017<br>In CHF thousand | Before tax | Tax (expense)/ benefit | Net of tax |
|---|---|---|---|
| Remeasurements of defined benefit obligations | 1,917 | –721 | 1,196 |
| Changes in the fair value of hedging reserves | 3,377 | –608 | 2,769 |

The following income taxes were (charged)/credited to equity during the period:

| January 1–December 31, 2018<br>In CHF thousand | Before tax | Tax (expense)/ benefit | Net of tax |
|---|---|---|---|
| Share-based payments | 602 | –56 | 546 |

| January 1–December 31, 2017<br>In CHF thousand | Before tax | Tax (expense)/ benefit | Net of tax |
|---|---|---|---|
| Share-based payments | –2,508 | –48 | –2,556 |

## Deferred tax balances

The deferred tax assets and liabilities at the end of the period were as follows:

| As of December 31, 2018<br>In CHF thousand | Deferred tax assets | Deferred tax liabilities | Net closing balance |
|---|---|---|---|
| Other current assets | 102 | –334 | –232 |
| Inventories | 3,562 | –3,239 | 323 |
| Property, plant and equipment | 723 | –5,763 | –5,041 |
| Investment properties | | –54 | –54 |
| Intangible assets | | –36,547 | –36,547 |
| Other current liabilities | 540 | –376 | 164 |
| Provisions | | –1,982 | –1,982 |
| Defined benefit obligations | 6,121 | | 6,121 |
| Tax losses carried forward | 2,091 | | 2,091 |
| Non-refundable withholding taxes on future distributions | | –927 | –927 |
| **Total deferred tax assets/(liabilities) before setoff** | **13,139** | **–49,223** | **–36,084** |
| Setoff of balances within the same tax jurisdiction | –6,393 | 6,393 | 0 |
| **Net deferred tax assets/(liabilities)** | **6,746** | **–42,829** | **–36,084** |

The deferred tax assets and liabilities at the end of the previous period were as follows:

| As of December 31, 2017<br>In CHF thousand | Deferred tax assets | Deferred tax liabilities | Net closing balance |
|---|---|---|---|
| Other current assets | 48 | –467 | –419 |
| Inventories | 6,192 | –2,968 | 3,224 |
| Property, plant and equipment | 22 | –5,767 | –5,745 |
| Investment properties | | –52 | –52 |
| Intangible assets | | –38,404 | –38,404 |
| Other current liabilities | 405 | –35 | 370 |
| Other non-current liabilities | 50 | | 50 |
| Provisions | | –1,769 | –1,769 |
| Defined benefit obligations | 4,202 | | 4,202 |
| Tax losses carried forward | 1,900 | | 1,900 |
| Non-refundable withholding taxes on future distributions | | –792 | –792 |
| **Total deferred tax assets/(liabilities) before setoff** | **12,819** | **–50,254** | **–37,434** |
| Setoff of balances within the same tax jurisdiction | –4,408 | 4,408 | 0 |
| **Net deferred tax assets/(liabilities)** | **8,411** | **–45,845** | **–37,434** |

The movement in deferred tax balances is as follows:

| In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Net tax liabilities as of January 1** | **–37,434** | **–46,000** |
| Recognized in income statement | –573 | 9,860 |
| Recognized in OCI | 1,921 | –1,329 |
| Translation differences | 2 | 35 |
| **Net tax liabilities as of December 31** | **–36,084** | **–37,434** |

For some Group companies, dividend payments are subject to a withholding tax which cannot be fully recovered in Switzerland. Deferred tax liabilities in the amount of the non-recoverable withholding tax credits are recorded in profit and loss. The balance of these deferred tax liabilities was CHF 0.9 million (prior year: CHF 0.8 million).

### Tax losses

Deferred tax assets are recognized for tax loss carry-forwards to the extent that the realization of the related tax benefit through the future taxable profits is probable. The details of the tax losses carried forwards for which no deferred tax assets were recognized are as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Opening balance** | **67,017** | **161,516** |
| Tax losses for which no deferred tax assets were recognized | 4,943 | 0 |
| Recognition of tax loss carry-forward | 0 | –9,139 |
| Used tax losses carried forwards | –8,506 | 0 |
| Expired due to reorganization[1] | –58,496 | –82,972 |
| Exchange differences | –5 | –2,388 |
| **Closing balance** | **4,953** | **67,017** |

1 Expired due to reorganization of legal structure in Luxembourg

The total tax losses for which no deferred tax assets were recognized will expire as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| 2020 | 0 | 0 |
| 2021 | 0 | 0 |
| After 2021 | 4,953 | 67,017 |
| **Total** | **4,953** | **67,017** |

Further, there are temporary differences with respect to investments in subsidiaries of CHF 2.8 million (prior year: CHF 2.8 million), for which no deferred tax liabilities were recognized. The Group is able to control the timing of the reversal and it is not intended to reverse the temporary difference in the foreseeable future.

## 13. Cash and cash equivalents

Cash and cash equivalents fully consist of cash at bank and on hand. The total of cash and cash equivalents includes amounts of CHF 0.3 million (prior year: CHF 0.3 million) which has a restriction of use.

## 14. Trade and other receivables

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Trade receivables – gross | 84,105 | 109,151 |
| Less provision for impairment of trade receivables | –342 | –471 |
| **Trade receivables – net** | **83,763** | **108,680** |
| Recoverable VAT and withholding tax | 5,256 | 9,877 |
| Deposits | 834 | 801 |
| Receivables from social security | 1,816 | 1,271 |
| Receivables under finance lease | 3,798 | 6,321 |
| Other | 1,276 | 1,727 |
| **Total trade and other receivables** | **96,743** | **128,676** |
| Thereof: | | |
| Current trade and other receivables | 94,778 | 122,590 |
| Non-current other receivables | 1,965 | 6,086 |

Deposits for office rent have no fixed due date and are considered to be non-current.

The Group applies the IFRS 9 simplified approach to measuring expected credit losses which uses a lifetime expected loss allowance for all trade receivables. Loss rates are based on actual credit loss experience over the past years and current conditions. Current conditions are reflected in the development of the country risk premium of the Group's sales region. The allowance matrix is reviewed periodically to determine an adequate impairment provision. Losses on trade and other receivables are not material. Therefore, the provision matrix is not disclosed separately. Individual impairment provisions are recorded for accounts where collection cannot be expected. The effect of initially applying IFRS 9 is described in note 3. Movements on the Group provision for impairment of trade and other receivables are as follows:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Opening balance under IAS 39** | **471** | **748** |
| Adjustment on initial application of IFRS 9 | 36 | |
| **Opening balance under IFRS 9** | **507** | |
| Provision for receivables impairment | 27 | 89 |
| Receivables written off during the year as uncollectible | –74 | –137 |
| Unused amounts reversed | –115 | –236 |
| Exchange differences | –3 | 7 |
| **Closing balance** | **342** | **471** |
| Thereof impairment of trade receivables | 342 | 471 |

Amounts charged to the allowance account are generally written off when there is no expectation of recovering additional cash.

**Receivables under finance lease**

Lease agreements in which the other party, as lessee, is to be regarded as the economic owner of the leased assets give rise to accounts receivable in the amount of the discounted future lease receipts. These receivables primarily relate to the lease of machinery and amount to CHF 3.8 million as of December 31, 2018 (prior year: CHF 6.3 million) and will bear interest income until their maturity dates of CHF 0.1 million (prior year: CHF 0.4 million).

The payment dates of the receivables under finance lease are as follows:

| In CHF thousand | Unearned interest income | Present value | Total future minimum lease receipts |
|---|---|---|---|
| No later than 1 year | 136 | 3,798 | 3,934 |
| **Total at 31.12.2018** | **136** | **3,798** | **3,934** |
| | | | |
| No later than 1 year | 266 | 2,591 | 2,856 |
| Between 1 and 5 years | 136 | 3,730 | 3,866 |
| **Total at 31.12.2017** | **402** | **6,321** | **6,722** |

## 15. Derivative financial instruments

The following table shows the carrying amounts of the derivatives.

| As of December 31<br>In CHF thousand | Measurement principle | 2018 | 2017 |
|---|---|---|---|
| Derivatives held for hedging | Level 2[1] | 303 | 1,150 |
| **Derivative assets** | | **303** | **1,150** |
| Thereof: | | | |
| Current derivative assets | | 280 | 1,150 |
| Non-current derivative assets | | 23 | 0 |
| | | | |
| Derivatives held for hedging | Level 2[1] | –1,562 | –2,127 |
| **Derivative liabilities** | | **–1,562** | **–2,127** |
| Thereof: | | | |
| Current derivative liabilities | | –1,539 | –1,836 |
| Non-current derivative liabilities | | –23 | –291 |

1 The fair values of the derivatives held by VAT Group are based on market/broker quotes. Similar contracts are traded in an active market and quotes reflect the actual transactions in similar instruments. If all significant inputs required for the valuation of an instrument are observable, the instrument is included in Level 2.

**Forward foreign exchange contracts**

The notional principal amounts of the outstanding forward foreign exchange contracts at December 31, 2018 were USD 115.0 million (prior year: USD 197.0 million) and JPY 5,640.0 million (prior year: JPY 3,000.0 million). The hedged highly probable forecast transactions denominated in foreign currency are expected to occur at various dates during the next 18 months.

**Hedge accounting**

VAT Group apply hedge accounting for all foreign currency contracts in line with IFRS 9. The effective portion of the gain or loss on the hedging instrument is recognized in other comprehensive income in the hedging reserves, while any ineffective portion is recognized immediately in the income statement. The cumulated unrealized gain or loss that had been recorded in equity is subsequently reclassified into earnings in the same period during which the hedged item affects net profit or loss. When a hedging instrument expires or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss previously recognized in other comprehensive income is transferred to the income statement. VAT Group uses cash flow hedges to reduce and manage the economic impact of its main currency risks. As of December 31, 2018 and 2017, the Group held currency forwards as hedging instruments. The forward contracts were denominated in the same currency as the highly probable future transactions; therefore the hedge ratio on all hedges conducted by VAT Group was 1:1 as of December 31, 2018. The hedging reserves included net unrealized losses of CHF 1.1 million, net of tax, on derivatives designated as cash flow hedges (prior year: CHF 0.8 million). Net losses of CHF 2.1 million (prior year: CHF 0.8 million) were reclassified to earnings in 2018. The maturity of derivatives classified as a cash flow hedge was between 6 to 18 months.

## 16. Prepayments and accrued income

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Prepaid purchases | 466 | 492 |
| Other prepaid expenses | 2,590 | 1,156 |
| Accrued income | 71 | 1,068 |
| **Total prepayments and accrued income** | **3,127** | **2,717** |

## 17. Inventories

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Raw materials and consumables | 42,618 | 35,403 |
| Work in progress | 12,389 | 16,731 |
| Semi-finished goods | 23,132 | 19,047 |
| Finished goods | 26,019 | 39,564 |
| **Total inventories** | **104,158** | **110,744** |

In the financial year 2018, inventories of CHF 1.0 million (previous year: CHF 0.7 million) were scrapped and recognized as expense.

### 18. Property, plant and equipment

As of December 31, 2018, the Group had CHF 170.5 million (prior year: CHF 147.8 million) in property, plant and equipment. Property, plant and equipment are assessed for impairment when there is a triggering event that provides evidence that an asset may be impaired. To assess whether any impairment exists, estimates of expected future cash flows are used. Actual outcomes could vary significantly from such estimates. Factors such as changes in discount rates, the planned use of buildings, machinery or equipment or closure of facilities, the presence of competition, technical obsolescence and lower than anticipated product sales could lead to shorter useful lives or impairments.

| January 1–December 31, 2018<br>In CHF thousand | Land | Buildings | Machinery | Furniture/ fixtures | Other equipment | Assets under construction | Total |
|---|---|---|---|---|---|---|---|
| **Balance at 01.01.2018** | **8,065** | **73,202** | **70,602** | **5,935** | **15,423** | **28,227** | **201,456** |
| Additions | | 307 | 13'942 | 1,820 | 1,162 | 24,721 | 41,953 |
| Additions non-cash | | | | | | | |
| Disposals | | | –222 | –40 | –543 | | –805 |
| Transfer | | 3,893 | 15,012 | 1,084 | 2,263 | –22,252 | 0 |
| Exchange differences | –23 | –136 | –1,077 | –68 | –77 | –323 | –1,705 |
| **Balance at 31.12.2018** | **8,042** | **77,265** | **98,257** | **8,731** | **18,228** | **30,373** | **240,898** |
| **Accumulated depreciation and impairment** | | | | | | | |
| **Balance at 01.01.2018** | **–129** | **–12,652** | **–30,537** | **–2,885** | **–7,500** | **0** | **–53,704** |
| Depreciation charge | –34 | –3,912 | –9,941 | –948 | –2,782 | | –17,619 |
| Impairment loss | | | –2 | –43 | | | –45 |
| Disposals | | | 123 | 12 | 274 | | 409 |
| Transfer | | –1 | | | | | –1 |
| Exchange differences | 3 | 28 | 482 | 27 | 46 | | 586 |
| **Balance at 31.12.2018** | **–161** | **–16,537** | **–39,875** | **–3,838** | **–9,963** | **0** | **–70,374** |
| **Net book amount 31.12.2018** | **7,881** | **60,729** | **58,383** | **4,893** | **8,266** | **30,373** | **170,524** |

| January 1–December 31, 2017<br>In CHF thousand | Land | Buildings | Machinery | Furniture/ fixtures | Other equipment | Assets under construction | Total |
|---|---|---|---|---|---|---|---|
| **Balance at 01.01.2017** | **5,894** | **68,887** | **52,401** | **5,029** | **13,091** | **7,940** | **153,243** |
| Additions | | 344 | 4,197 | 319 | 951 | 37,962 | 43,774 |
| Additions non-cash | | | | | 75 | | 75 |
| Disposals | | | –447 | –192 | –820 | | –1,459 |
| Transfer | 2,058 | 3,434 | 12,892 | 689 | 2,088 | –18,240 | 2,921 |
| Exchange differences | 114 | 537 | 1,558 | 90 | 38 | 564 | 2,902 |
| **Balance at 31.12.2017** | **8,065** | **73,202** | **70,602** | **5,935** | **15,423** | **28,227** | **201,456** |
| **Accumulated depreciation and impairment** | | | | | | | |
| **Balance at 01.01.2017** | **–88** | **–8,396** | **–20,816** | **–2,061** | **–5,753** | **0** | **–37,115** |
| Depreciation charge | –32 | –3,572 | –7,969 | –816 | –2,343 | | –14,732 |
| Impairment loss | | | –1,519 | | | | –1,519 |
| Disposals | | | 437 | 43 | 689 | | 1,169 |
| Transfer | | –614 | | | | | –614 |
| Exchange differences | –9 | –70 | –669 | –52 | –93 | | –893 |
| **Balance at 31.12.2017** | **–129** | **–12,652** | **–30,537** | **–2,885** | **–7,500** | **0** | **–53,704** |
| **Net book amount 31.12.2017** | **7,936** | **60,550** | **40,065** | **3,050** | **7,923** | **28,227** | **147,751** |

## 19. Investment properties

The carrying amounts of the investment properties measured using the cost model are reasonably approximate of their fair values.

| January 1–December 31, 2018<br>In CHF thousand | Land | Buildings | Total |
|---|---|---|---|
| **Balance at 01.01.2018** | **869** | **1,249** | **2,118** |
| Additions | | | 0 |
| Disposals | | | 0 |
| Transfer | | | 0 |
| **Balance at 31.12.2018** | **869** | **1,249** | **2,118** |
| **Accumulated depreciation and impairment** | | | |
| **Balance at 01.01.2018** | **0** | **–195** | **–195** |
| Depreciation charge | | –51 | –51 |
| Disposals | | | 0 |
| Transfer | | 1 | 1 |
| **Balance at 31.12.2018** | **0** | **–245** | **–245** |
| **Net book amount at 31.12.2018** | **869** | **1,004** | **1,873** |

| January 1–December 31, 2017<br>In CHF thousand | Land | Buildings | Total |
|---|---|---|---|
| **Balance at 01.01.2017** | **2,927** | **2,112** | **5,039** |
| Additions | | | 0 |
| Disposals | | | 0 |
| Transfer | –2,058 | –863 | –2,921 |
| **Balance at 31.12.2017** | **869** | **1,249** | **2,118** |
| **Accumulated depreciation and impairment** | | | |
| **Balance at 01.01.2017** | **0** | **–657** | **–657** |
| Depreciation charge | | –152 | –152 |
| Disposals | | | 0 |
| Transfer | | 614 | 614 |
| **Balance at 31.12.2017** | **0** | **–195** | **–195** |
| **Net book amount at 31.12.2017** | **869** | **1,053** | **1,923** |

## 20. Intangible assets and goodwill

Intangible assets amounting to CHF 321.9 million (prior year: CHF 333.5 million) 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 useful lives, where this can be clearly determined. For intangible assets with indefinite useful lives such as brands and trademarks, 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 amounting to CHF 183.7 million as of December 31, 2018, and December 31, 2017, is not amortized, but instead tested annually for impairment. The recoverable amount of cash-generating units is measured on the basis of value in use, estimated using discounted cash flows.

| January 1–December 31, 2018<br>In CHF thousand | Goodwill | Software | Acquired technology and customer relationships | Brands and trademarks | Other intangible assets | Construction in progress | Total |
|---|---|---|---|---|---|---|---|
| **Balance at 01.01.2018** | **183,717** | **8,178** | **263,600** | **120,900** | **1,338** | **4,079** | **581,812** |
| Additions | | 34 | | | | 6,211 | 6,245 |
| Disposals | | –19 | | | –178 | | –197 |
| Transfer | | 3,766 | | | 1,971 | –5,737 | 0 |
| Exchange differences | | –12 | | | | | –12 |
| **Balance at 31.12.2018** | **183,717** | **11,947** | **263,600** | **120,900** | **3,131** | **4,553** | **587,848** |
| **Accumulated amortization and impairment** | | | | | | | |
| **Balance at 01.01.2018** | **0** | **–4,148** | **–59,957** | **0** | **–494** | **0** | **–64,599** |
| Amortization charge | | –1,995 | –15,308 | | –365 | | –17,668 |
| Impairment loss | | | | | –175 | | –175 |
| Disposals | | 19 | | | 178 | | 197 |
| Exchange differences | | 11 | | | | | 11 |
| **Balance at 31.12.2018** | **0** | **–6,113** | **–75,265** | **0** | **–856** | **0** | **–82,234** |
| **Net book value 31.12.2018** | **183,717** | **5,834** | **188,335** | **120,900** | **2,275** | **4,553** | **505,614** |

| January 1–December 31, 2017<br>In CHF thousand | Goodwill | Software | Acquired technology and customer relationships | Brands and trademarks | Other intangible assets | Construction in progress | Total |
|---|---|---|---|---|---|---|---|
| **Balance at 01.01.2017** | **183,717** | **6,080** | **263,600** | **120,900** | **1,451** | **2,569** | **578,317** |
| Additions | | 17 | | | | 3,786 | 3,804 |
| Disposals | | –36 | | | –302 | | –338 |
| Transfer | | 2,088 | | | 189 | –2,277 | 0 |
| Exchange differences | | 29 | | | | 1 | 30 |
| **Balance at 31.12.2017** | **183,717** | **8,178** | **263,600** | **120,900** | **1,338** | **4,079** | **581,812** |
| **Accumulated amortization and impairment** | | | | | | | |
| **Balance at 01.01.2017** | **0** | **–2,817** | **–44,649** | **0** | **–351** | **0** | **–47,817** |
| Amortization charge | | –1,309 | –15,308 | | –253 | | –16,870 |
| Impairment loss | | | | | –193 | | –193 |
| Disposals | | 13 | | | 302 | | 315 |
| Exchange differences | | –35 | | | | | –35 |
| **Balance at 31.12.2017** | **0** | **–4,148** | **–59,957** | **0** | **–494** | **0** | **–64,599** |
| **Net book value 31.12.2017** | **183,717** | **4,030** | **203,643** | **120,900** | **843** | **4,079** | **517,213** |

**Research and development costs**

In 2018, research and development expenses amounting to CHF 34.1 million (previous year: CHF 34.0 million) were included in the items "Personnel expenses," "Other operating expenses" and "Depreciation and amortization." For 25 development projects, the capitalization criteria according to IAS 38.57 were met and expenses of CHF 3.3 million (previous year: CHF 1.1 million) were capitalized.

**Impairment testing for goodwill and intangible assets with indefinite useful lives**

The intangible assets and goodwill to be tested were allocated to and measured on cash-generating units (CGUs) at the segment levels as follows. The allocation remains unchanged for December 31, 2018, from December 31, 2017.

| In CHF thousand | Valves | Global Service | Industry | Total |
|---|---|---|---|---|
| Goodwill | 128,673 | 35,742 | 19,302 | 183,717 |
| Brand and trademarks | 94,618 | 26,282 | 0 | 120,900 |
| **Total carrying amount 31.12.2018** | **223,291** | **62,024** | **19,302** | **304,617** |

Goodwill and intangible assets with indefinite useful lives have been allocated to the CGUs by using the relative fair value approach based on the financial performance of those CGUs as well as management best estimate. The allocation corresponds with the lowest level at which those assets are monitored by management.

Recoverable amounts used in the impairment testing are based on the value in use and on the latest forecasts approved by management, discounting the future cash flows to be generated from the continuing use. The forecast period used for future cash flows covers the years 2019 to 2021. 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 impairment tests carried out supported the carrying amounts and, therefore, no need for impairment was identified.

The key assumptions used in the estimation of fair value in use were as follows:

| As of December 31, 2018 | Valves | Global Service | Industry |
|---|---|---|---|
| Discount rate (WACC) before tax | 10.8% | 10.7% | 10.4% |
| Terminal value growth rate | 1.7% | 1.7% | 1.7% |

| As of December 31, 2017 | Valves | Global Service | Industry |
|---|---|---|---|
| Discount rate (WACC) before tax | 9.4% | 9.3% | 9.3% |
| Terminal value growth rate | 1.6% | 1.6% | 1.6% |

Management believes that no reasonably possible change in any of the above key assumptions would cause the recoverable amount to be less than the carrying amount.

## 21. Loans and borrowings

The terms and conditions of outstanding loans are as follows:

| As of December 31, 2018<br>In CHF thousand | Currency | Nominal interest rate | Year of maturity | Carrying amount |
|---|---|---|---|---|
| Revolving credit facility (RCF) | USD | USD LIBOR +0.95% | 2023 | 22,945 |
| Revolving credit facility (RCF) | CHF | CHF LIBOR +0.95% | 2023 | 4,664 |
| Fixed-rate bond | CHF | 1.50% | 2023 | 199,078 |
| **Total loans and borrowings** | | | | **226,686** |
| Thereof: | | | | |
| Current | | | | 27,608 |
| Non-current | | | | 199,078 |

| As of December 31, 2017<br>In CHF thousand | Currency | Nominal interest rate | Year of maturity | Carrying amount |
|---|---|---|---|---|
| Revolving credit facility (RCF) | USD | USD LIBOR +1.55% | 2021 | 100,764 |
| Revolving credit facility (RCF) | CHF | CHF LIBOR +1.45% | 2021 | 115,000 |
| **Total loans and borrowings** | | | | **215,764** |
| Thereof: | | | | |
| Current | | | | 55,764 |
| Non-current | | | | 160,000 |

VAT Group AG maintains a syndicated five-year revolving credit facility (RCF) of USD 300.0 million. On April 5, 2018, the RCF was amended and the final maturity date extended from September 23, 2021 to September 23, 2023. The movement of the outstanding loan in financial year 2018 was mainly driven by a repayment of CHF 214.7 million, raising of CHF 25.0 million as well as foreign exchange effects in the amount of CHF 1.8 million.

The RCF is subject to the financial covenant “net senior debt/EBITDA” ratio, with which the Group complied with for the financial year 2018.

On May 23, 2018, VAT Group issued a fixed-rate bond with a nominal value of CHF 200.0 million, which is listed on the SIX Swiss Exchange (ISIN: CH0417086052). The bond carries a coupon rate of 1.5% and has a term of five years with a final maturity on May 23, 2023. On December 31, 2018, the market value of the bond was CHF 194.5 million.

The carrying amounts as of December 31, 2018 include financing costs of CHF 2.9 million (prior year CHF 1.7 million), which will be recognized in profit and loss over the remaining duration of the credit facility.

### Reconciliation of movements of liabilities to cash flows from financing activities

| As of December 31<br>In CHF thousand | 2018 | Cash-effective adjustment | | Non-cash-effective adjustment | | 2017 |
|---|---|---|---|---|---|---|
| | | Addition | Repayment | Addition | Foreign exchange | |
| Loans and borrowings | 226,686 | 223,936 | –214,678 | –113 | 1,778 | 215,764 |
| **Total liabilities from financing activities** | **226,686** | **223,936** | **–214,678** | **–113** | **1,778** | **215,764** |

| As of December 31<br>In CHF thousand | 2017 | Cash-effective adjustment | | Non-cash-effective adjustment | | 2016 |
|---|---|---|---|---|---|---|
| | | Addition | Repayment | Addition | Foreign exchange | |
| Loans and borrowings | 215,764 | 115,000 | –89,847 | 463 | –6,357 | 196,505 |
| **Total liabilities from financing activities** | **215,764** | **115,000** | **–89,847** | **463** | **–6,357** | **196,505** |

## 22. Trade and other payables

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Trade payables | 30,912 | 80,270 |
| Sales tax and other non-income tax payables | 4,829 | 6,158 |
| Social security payables | 2,813 | 1,863 |
| Salaries and employee expenses | 451 | 426 |
| Prepayments received from customers | 4,249 | 3,184 |
| Other liabilities | 1,314 | 919 |
| **Total trade and other payables** | **44,568** | **92,820** |

The carrying amounts of the Group's trade and other payables are denominated in the following currencies:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Swiss Franc | 22,382 | 41,906 |
| Euro | 7,811 | 20,684 |
| US Dollar | 4,338 | 21,415 |
| Malaysian Ringgit | 2,771 | 3,899 |
| Romanian Leu | 1,289 | 2,173 |
| Chinese Yuan | 3,185 | 1,040 |
| Other currencies | 2,791 | 1,701 |
| **Total trade and other payables** | **44,568** | **92,820** |

## 23. Accrued expenses and deferred income

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Accrued expenses – personnel related | 10,288 | 14,552 |
| Accrued expenses – other | 10,434 | 6,808 |
| Deferred income | 17 | 6 |
| **Total accrued expenses and deferred income** | **20,739** | **21,366** |

### 24. Liabilities from government grants

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Liabilities from government grants | 998 | 1,505 |
| **Total** | **998** | **1,505** |
| Thereof: | | |
| Current | 453 | 471 |
| Non-current | 545 | 1,034 |

In 2012, the Romanian manufacturing plant was granted EU subsidies in the amount of CHF 3.7 million to support an extension and modernization of the existing plant. Construction was completed in August 2014. The plant must be in use for the following consecutive five years. There are further performance conditions, such as number of employees, revenues and amount of export, which must be met during that entire period. A refund is not requested if the performance conditions are met. The liability from government grants is recorded in the income statement on a straight-line basis over the useful life of the asset, being eight years. During the period an amount of CHF 0.5 million (prior year: CHF 0.4 million) was recorded in other income.

### 25. Provisions

| January 1–December 31, 2018<br>In CHF thousand | Warranties | Other provisions | Total provisions |
|---|---|---|---|
| **Balance at 01.01.2018** | **1,652** | **150** | **1,802** |
| Additions | 2,284 | 166 | 2,450 |
| Used | –1,453 | –219 | –1,672 |
| Translation differences | 0 | –3 | –3 |
| **Balance at 31.12.2018** | **2,483** | **94** | **2,577** |
| Thereof: | | | |
| Current provisions | 2,483 | 94 | 2,577 |

#### Warranties

Warranty provisions cover the risk of expenses in regard to product liability claims that are expected to occur before the warranty period expires. Warranty provisions are calculated on the basis of effective warranty cases and past experience and are used as payments are made. The warranty provisions are subject to a degree of uncertainty with regard to timing and the amount to be paid.

No other significant provisions were deemed required at the reporting date.

### 26. Employee benefits

The present value of the defined benefit obligations depend on a number of factors that are determined on an actuarial basis using a number of assumptions. Any changes in these assumptions will impact the carrying amount of the defined benefit liabilities. The assumptions used in determining the net cost for pensions include the discount rate. The Group determines the appropriate discount rate at the end of each year. This is the interest rate that should be used to determine the present value of estimated future cash outflows expected to be required to settle the pension obligations. In determining the appropriate discount rate, the Group considers the 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 the terms of the related pension obligations.

Throughout the world, the Group maintains defined contribution plans for its employees under which the relevant contributions are expensed as they accrue. The aggregate cost of these plans in the period presented amounted to CHF 1.0 million (prior year: CHF 1.0 million).

There are three defined benefit plans in place: the members of the Board of Directors of the Japanese subsidiary as well as all French employees are covered by a non-funded defined benefit plan and all Swiss entities have a funded contributory defined benefit pension plan covering their employees with the following amounts recognized in balance sheet and income statement:

### Balance sheet

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Japan | 146 | 88 |
| France | 83 | 0 |
| Switzerland | 39,534 | 27,237 |
| **Net defined benefit liability in the balance sheet** | **39,763** | **27,325** |

### Income statement

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Japan | 48 | 61 |
| France | 85 | 0 |
| Switzerland | 6,346 | 5,964 |
| **Pension costs – defined benefit plans** | **6,479** | **6,025** |

### Swiss plan

The Swiss pension plan is 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 assets of the pension plan are held within a separate foundation and cannot revert to the employer. Pension plans are overseen by a regulator as well as by a state supervisory body.

The Swiss Group entities are affiliated to a semi-autonomous foundation. The Board of Trustees, which consists of employee and employer representatives in parity ratio, governs the semi-autonomous foundation. All governing and administration bodies have an obligation to act in the interests of the plan participants. They are also responsible for the investment strategy. When defining the investment strategy, they take into account the foundation's objectives, benefit obligations and risk capacity.

Plan participants, their spouse and children are insured against the financial consequences of old age, disability and death. Their benefits are defined in pension plan rules compliant with the BVG, which is specifying the minimum benefits that are to be provided. Retirement benefits are based on the accumulated retirement capital which can either be drawn as a lifelong annuity or as a lump sum payment. The annuity is calculated by multiplying the retirement capital with the currently applicable conversion rate. The accumulated retirement capital is made of the yearly contributions towards the old-age risk by both employer and employee and the interest thereon until retirement. Contributions towards the old-age risk are based on the rules defined by the Board of Trustees of the semi-autonomous foundation. Minimum contributions and interest are defined by the BVG and the Swiss Parliament. In 2018, the minimum interest was 1.00% (prior year: 1.00%).

Some demographic risks are safeguarded through a life insurance company (disability and death). There is a risk that the insurance coverage is only temporary in nature (e.g. cancellation by the life insurance firm), and that the inherent risks of the plan may lead to variable insurance premiums over time.

All other actuarial risks are borne by the foundation. These risks consist of demographic risks (primarily life expectancy) and financial risks (primarily the discount rate, future increases in salaries and the return on plan assets) and are regularly assessed by the Board of Trustees. In case of an underfunding, various measures can be taken such as the adjustment of the pension commitment by altering the conversion rates or increasing current contributions. The employer can also make additional restructuring contributions. The BVG prescribes how employees and employer have to jointly fund potential restructurings.

The foundation decided in 2018 to increase the annual old-age credits, starting from January 1, 2019. This resulted in a plan amendment, which was recognized as part of the service costs in the financial year 2018. The amounts recognized in the balance sheet are determined as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Present value of defined benefit obligation | 191,097 | 180,831 |
| Fair value of plan assets | 151,563 | 153,594 |
| **Net defined benefit liability** | **39,534** | **27,237** |

The movement in the defined benefit obligation over the period is as follows:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Opening defined benefit obligation** | **180,831** | **157,642** |
| Service costs | 6,550 | 5,889 |
| Plan participants contributions | 6,510 | 5,951 |
| Interest expense | 1,147 | 964 |
| Remeasurement (gains)/losses | 5,139 | 4,390 |
| Plan amendment | –253 | 0 |
| Benefits paid through pension assets | –8,827 | 5,995 |
| **Closing defined benefit obligation** | **191,097** | **180,831** |

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Opening fair value of plan assets** | **153,594** | **129,267** |
| Interest income | 1,012 | 805 |
| Return on plan assets (excl. amounts in net interest) | –7,134 | 6,307 |
| Plan participants contributions | 6,510 | 5,951 |
| Employer contributions | 6,510 | 5,344 |
| Benefits received/(paid) through pension assets net | –8,827 | 5,995 |
| Administration expense | –102 | –75 |
| **Closing fair value of plan assets** | **151,563** | **153,594** |

As of the reporting date, the present value of the defined benefit obligation was comprised of:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Defined benefit obligation for active employees | 151,527 | 143,966 |
| Defined benefit obligation for pensioners | 39,570 | 36,865 |
| **Total defined benefit obligation** | **191,097** | **180,831** |

The defined benefit cost for the period is as follows:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Current service costs | 6,550 | 5,889 |
| Interest expense on defined benefit obligation | 1,147 | 964 |
| Interest income on plan assets | –1,012 | –805 |
| Plan amendment | –253 | 0 |
| Administration expense | 102 | 75 |
| **Total defined benefit cost/(income) recognized in income statement** | **6,534** | **6,123** |
| Thereof: | | |
| Employee benefit expenses | 6,399 | 5,964 |
| Finance expenses | 135 | 159 |
| | | |
| Actuarial (gain)/loss arising from financial assumptions | 5,226 | –1,534 |
| Actuarial (gain)/loss arising from experience adjustment | –87 | 5,924 |
| Return on plan assets (excl. amounts included in net interest) | 7,134 | –6,307 |
| **Total defined benefit cost/(income) recognized in OCI** | **12,273** | **–1,917** |

The major asset categories are as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Equity instruments (quoted market prices) | 45,056 | 45,781 |
| Debt instruments (quoted market prices) | 35,608 | 46,543 |
| Real estate (quoted market prices) | 28,899 | 24,622 |
| Alternative investments (quoted market prices) | 27,433 | 23,497 |
| Cash | 14,083 | 10,001 |
| Others | 484 | 3,150 |
| **Total** | **151,563** | **153,594** |

Equity instruments contain shares from VAT Group AG with a fair value in the amount of CHF 1.7 million (prior year: CHF 2.9 million).

The significant actuarial assumptions were as follows:

| As of December 31 | 2018 | 2017 |
|---|---|---|
| Discount rate | 0.70% | 0.65% |
| Inflation | 1.00% | 0.75% |
| Salary growth rate | 1.25% | 1.00% |
| Pension growth rate | 0.00% | 0.00% |

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in Switzerland. These assumptions translate into an average life expectancy in years for a pensioner retiring at age 65:

| As of December 31 | 2018 | 2017 |
|---|---|---|
| Retiring at the end of the reporting period: | | |
| Male | 22.50 | 22.38 |
| Female | 24.54 | 24.43 |
| Retiring 20 years after the end of the reporting period: | | |
| Male | 24.33 | 24.26 |
| Female | 26.37 | 26.29 |

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:

| | Impact on defined benefit obligation 2018 | | Impact on defined benefit obligation 2017 | |
|---|---|---|---|---|
| | Increase in assumption | Decrease in assumption | Increase in assumption | Decrease in assumption |
| Discount rate (+/– 0.25%) | –7,889 | 8,459 | –7,357 | 7,895 |
| Salary growth rate (+/– 0.25%) | 1,050 | –1,031 | 1,042 | –1,018 |

The above sensitivity analyses are based on a change in an assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit obligation calculated with the projected unit credit method at the end of the reporting period) has been applied as when calculating the defined benefit liability recognized within the balance sheet.

Expected contributions to defined benefit plans for the year ending December 31, 2019 amount to CHF 6.5 million.

The weighted average duration of the defined benefit obligation is 16.2 years (prior year: 16.5 years).

### Japanese plan

The movement in the defined benefit obligation over the period is as follows:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Opening defined benefit obligation** | **88** | **61** |
| Service costs | 48 | 61 |
| Retirements | 0 | –34 |
| Exchange differences | 10 | 0 |
| **Closing defined benefit obligation** | **146** | **88** |

Board of Directors of the Japanese Group company is covered by a company-funded pension benefit scheme. The amounts allocated to the employees are calculated based on the past service period using a multiple, taking the average salary for the previous three years into consideration. Amounts are calculated and recorded on an annual basis when the service period has vested.

### French plan

Group employees in France are entitled to a length-of-service award when they retire, determined in accordance with the law and the applicable collective bargaining agreement. The award is measured as a multiple of the individual's monthly salary for the last 12 months before retirement, determined by reference to his or her years of service. This plan was recognized in financial year 2018 for the first time. The accumulated service costs amount to CHF 0.1 million.

## 27. Share-based payments

At December 31, 2018, the Group had the following share-based payment arrangements.

### Board member share compensation (equity-settled share-based payment)

Members of the Board receive 30% of the total compensation in restricted shares. The restricted shares are subject to a three-year blocking period during which they cannot be transferred, sold, pledged or otherwise disposed of. VAT Group granted 1,478 shares (prior period 1,390 shares) with a fair value of CHF 152.5 per share for the period 2017/18. For the period 2018/19, the Group allocated 2,132 shares (prior period 1,247 shares).

### Long-term incentive plan – LTIP (equity-settled share-based payment)

Long-term incentive plans (LTIP) are in place for the Group's senior management. So-called performance share units (PSUs) were allocated to the senior management. One PSU represents a conditional right to receive a certain number of underlying shares free of charge pursuant to the vesting period of three years and perfomance conditions. The number of shares allocated to each PSU ranges between zero and two shares. The allocation is dependent upon achievement of the performance targets of VAT compared to a predefined peer group on the two equal weighted metrics relative sales growth and relative total shareholder return (TSR). This LTIP is specifically designed for rewarding the performance of VAT relative to a selected peer group of companies. The inputs used in the measurement of the fair values at grant date were as follows:

| | Share price at grant date | TSR fair value at grant date (50%) | Sales growth fair value at grant date (50%) | Volatility | Risk-free rate | Dividend yield |
|---|---|---|---|---|---|---|
| **Long-term incentive plan 2017** | CHF 128.28 | CHF 104.94 | CHF 105.15 | 25.3% | 0.5% | 3.3% |
| **Long-term incentive plan 2018** | CHF 139.18 | CHF 101.19 | CHF 109.16 | 26.7% | 0.5% | 3.8% |

As of December 31, 2018, the number of outstanding performance share units (PSU) under the plan are 12,982 (prior year: 5,929).

### Expenses recognized in profit or loss

For all these share-based payments, a total amount of CHF 0.7 million (prior year: CHF 2.9 million) was recognized as personnel expenses in the consolidated income statement for the financial year 2018.

## 28. Equity

### Share capital

As of December 31, 2018, the total authorized and issued number of ordinary shares comprises 30,000,000 shares with a nominal value of CHF 0.10 each. A conditional capital increase of up to 1,500,000 shares, which is included in the articles of association of VAT Group AG, was not drawn as of December 31, 2018.

### Share premium

Shares were issued in exchange for investments in VAT Holding S.à r.l. and VAT Management S.à r.l. as well as a shareholder loan from VAT Holding S.à r.l. in the financial year 2016.

### Treasury shares

VAT Group AG initially purchased own shares to be held as treasury shares at the offer price of CHF 45 pursuant to the share-based payment plans as shown in note 27. As of December 31, 2018, the Group held 15,264 own shares (prior year: 17,547).

**Nature and purpose of reserves**

The translation reserves comprise all foreign currency differences arising from the translation of the financial statements of foreign operations.

The hedging reserves comprise the effective portion of the cumulative net change in the fair value of hedging instruments used in cash flow hedges pending subsequent recognition in the income statement as the hedged cash flows or items affect profit or loss.

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

Other reserves represent stamp duty from the issue of new shares in the financial year 2016.

**Dividends**

VAT declared and paid following dividend from the reserves from capital contributions:

| In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Dividends paid** | **119,932** | **119,923** |

The Board of Directors proposed a dividend in the amount of CHF 4.00 per share for the financial year 2017 (prior year: CHF 4.00 per share). The dividend was approved and paid out in May 2018.

## 29. Earnings per share

Basic earnings per share are calculated by dividing net income attributable to owners of the Company by the weighted number of ordinary shares outstanding during the period. Treasury shares are not considered as outstanding shares. The following reflects the income and share data used in the basic and diluted EPS calculation:

| In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Basic earnings per share (in CHF)** | **4.53** | **3.86** |
| Net profit | 135,687 | 115,677 |
| Weighted average number of shares outstanding (in thousands of units) | 29,984 | 29,956 |

Diluted earnings per share is calculated by dividing net income attributable to owners of the Company by the weighted average number of shares adjusted for all potentially dilutive shares. Dilutive shares arise from the share-based payments as shown in note 27.

| In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Diluted earnings per share (in CHF)** | **4.52** | **3.86** |
| Net profit | 135,687 | 115,677 |
| Weighted average number of shares outstanding (in thousands of units) | 29,992 | 29,959 |

## 30. Financial instruments

### Categories of financial instruments

The following table discloses the carrying amounts of all financial instruments for each category:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| **Financial assets measured at amortized cost** | | |
| Cash and cash equivalents | 79,063 | 72,021 |
| Trade and other receivables | 88,657 | 116,215 |
| Accrued income | 71 | 1,068 |
| **Total financial assets recorded at amortized cost** | **167,791** | **189,304** |
| **Financial assets measured at fair value** | | |
| Equity shares | 34 | 36 |
| Forward exchange contracts | 303 | 1,150 |
| **Total financial assets measured at fair value** | **337** | **1,187** |
| **Financial liabilities recorded at amortized cost** | | |
| Trade and other payables | 32,226 | 81,189 |
| Accrued expenses | 10,434 | 6,808 |
| Other non-current liabilities | 199 | 201 |
| Loans and borrowings | 226,686 | 215,764 |
| **Total financial liabilities recorded at amortized cost** | **269,545** | **303,962** |
| **Financial liabilities measured at fair value** | | |
| Forward exchange contracts | 1,562 | 2,127 |
| **Total financial liabilities measured at fair value** | **1,562** | **2,127** |

### Fair value estimation

Financial instruments carried at fair value are analyzed by valuation method. The different levels have been defined as follows:

– quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1),
– observable prices for the asset or liability, either directly or indirectly (Level 2),
– inputs for the asset or liability are not based on observable market data (Level 3).

The carrying amounts of financial assets and liabilities not measured at fair value are a reasonable approximate of their fair values.

The Group recorded foreign exchange contracts (derivative financial assets/liabilities) at fair value, which are Level 2 financial instruments. The fair value of financial instruments that are not traded in an active market is determined by using valuation techniques that maximize the use of observable market data where it is available and rely as little as possible on entity specific estimates. The fair values are based on market/broker quotes. Similar contracts are traded in an active market and the quotes reflect the actual transactions in similar instruments.

There were no transfers in either direction between Level 1 and Level 2 in 2018 and 2017. No financial instruments were measured at Level 3.

## 31. Financial risk management

The Group's activities expose it to a variety of financial risks: market risk (including currency risk, fair value interest rate risk and cash flow interest rate risk), credit risk and liquidity risk. The Group's overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potential adverse effects on the Group's financial performance. The Group uses derivative financial instruments to hedge certain risk exposures.

Risk management is carried out by management under policies approved by the Board of Directors. Management identifies, evaluates and hedges financial risks in close cooperation with the Group's operating units. The Board provides written principles for overall risk management, as well as written policies covering specific areas, such as foreign exchange risk, interest rate risk, credit risk, use of derivative financial instruments and non-derivative financial instruments, and investment of excess liquidity.

### Market risk

**Foreign exchange risk** The Group operates internationally and is exposed to foreign exchange risk arising from various currency exposures, primarily with respect to the USD, EUR and JPY. Foreign exchange risk arises from future commercial transactions, recognized assets and liabilities and net investments in foreign operations.

Management has set up a policy to require Group companies to manage their foreign exchange risk against their functional currency. The Group hedges its foreign exchange risk exposure from future cash flows in USD and JPY. To manage its foreign exchange risk arising from future commercial transactions and recognized assets and liabilities, the Group uses forward contracts. Foreign exchange risk arises when future commercial transactions or recognized assets or liabilities are denominated in a currency that is not the entity's functional currency.

The Group has certain investments in foreign operations, whose net assets are exposed to foreign currency translation risk. The risk is monitored periodically. The foreign exchange exposure of these investments is actually not material for the Group and is not hedged.

The carrying amounts of the main Group's foreign currency denominated monetary assets and monetary liabilities at the reporting date are as follows:

| As of December 31, 2018<br>In CHF thousand | Assets | Liabilities | Net exposure |
|---|---|---|---|
| USD/CHF | 193,049 | 159,521 | 33,528 |
| EUR/CHF | 58,156 | 46,836 | 11,320 |
| JPY/CHF | 51,687 | 22,992 | 28,695 |

| As of December 31, 2017<br>In CHF thousand | Assets | Liabilities | Net exposure |
|---|---|---|---|
| USD/CHF | 210,792 | 250,625 | –39,834 |
| EUR/CHF | 46,813 | 42,849 | 3,964 |
| JPY/CHF | 71,758 | 38,009 | 33,749 |

The management's assessment for a reasonably possible change in the foreign exchange rates could be a 5% shift in the major currencies against the Swiss Franc with all the other variables held constant. In case of net financial assets/liabilities, as of December 31, 2018, the cumulated impact on net financial assets/liabilities would be CHF 3.7 million (CHF 1.7 million in USD/CHF, 0.6 million in EUR/CHF, 1.4 million in JPY/CHF) (prior year: CHF –0.1 million [CHF –2.0 million in USD/CHF, 0.2 million in EUR/CHF, 1.7 million in JPY/CHF]). An increase in major currency rates would have a positive (prior year: negative) impact and a decrease would have an equal negative (prior year: positive) impact on profit or loss and equity.

**Interest rate risk** The interest rate risk includes an interest-related cash flow risk and an interest-related risk of a change in market value. The interest-bearing financial assets and liabilities held by the Group mainly relate to cash and cash equivalents and borrowings.

**Fair value sensitivity analysis for fixed-rate instruments**
The Group does not account for any fixed-rate financial assets or financial liabilities at fair value through profit or loss, and the Group does not designate derivatives (interest rate swaps) as hedging instruments under a fair value hedge accounting model. Therefore, a change in interest rates at the reporting date would not affect profit or loss.

**Cash flow sensitivity analysis for variable-rate instruments**
As in prior year, a reasonably possible change of 50 basis points in interest rates at the reporting date would not have increased (decreased) profit or loss by a material amount. This analysis assumes that all other variables, in particular foreign currency exchange rates, remain constant. We expect the USD-LIBOR to increase in the next 12 months.

**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, and arises principally from the Group's receivables from customers. The carrying amounts of financial assets presented in the table in the previous note represent their maximum credit exposure.

Credit risk is managed on Group level, except for credit risk relating to accounts receivable balances. Each local entity is responsible for managing and analyzing the credit risk for each of its new clients before standard payment and delivery terms and conditions are offered. Credit risk arises from cash and cash equivalents, derivative financial assets and deposits with banks and financial institutions, as well as credit exposures to customers, including outstanding receivables and committed transactions. For banks and financial institutions, only independently rated counterparties with a minimum rating of "A" are accepted. If customers are independently rated, these ratings are used. If there is no independent rating, risk control assesses the credit quality of the customer, taking into account its financial position, past experience and other factors. The expected loss rates are based on the payment profiles of sales over a period and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of the customers to settle the receivables. No collateral is required.

Further information about trade receivables and the provision for impairment of trade receivables is provided in note 14.

With respect to trade receivables, the Group has two main customers representing 35% (prior year: 38%) of the Group's total revenues. This concentration of credit risk is considered low due to the strong market position of these two customers. Country risk is mitigated by the broad geographic spread of the Group's customer base.

**Liquidity risk**

Cash flow forecasting is performed by the operating entities of the Group and aggregated by Group treasury. Group treasury monitors rolling forecasts of the Group's liquidity requirements to ensure it has sufficient cash to meet operational needs.

Surplus cash held by the operating entities above the balance required for working capital management is transferred to Group treasury. Group treasury utilizes surplus cash for repayment of loans as per the above-mentioned forecasts.

The table below analyses the Group's non-derivative financial liabilities and derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. Derivative financial liabilities are included in the analysis if their contractual maturities are essential for an understanding of the timing of the cash flows. The amounts disclosed in the table are the contractual undiscounted cash flows.

| At 31.12.2018<br>In CHF thousand | | Contractual cash flows | | | | | |
|---|---|---|---|---|---|---|---|
| | Carrying amount | Total | Less than 3 months | Between 3 months and 1 year | Between 1 and 2 years | Between 2 and 5 years | Over 5 years |
| Trade and other payables | 32,226 | –32,226 | –27,850 | –4,376 | | | |
| Accrued expenses | 10,434 | –10,434 | –9,342 | –1,092 | | | |
| Other non-current liabilities | 199 | –199 | | | | | –199 |
| Loans and borrowings | 226,686 | –240,371 | –28,556 | –2,248 | –3,031 | –206,536 | |
| **Non-derivative financial liabilities** | **269,545** | **–283,230** | **–65,748** | **–7,716** | **–3,031** | **–206,536** | **–199** |
| Forward exchange contracts used for hedging: | | | | | | | |
| – Outflow | 1,562 | –119,723 | –52,078 | –64,428 | –3,217 | | |
| – Inflow | | 118,160 | 51,099 | 63,867 | 3,194 | | |
| **Derivative financial liabilities** | **1,562** | **–1,562** | **–979** | **–561** | **–23** | | |

| At 31.12.2017<br>In CHF thousand | | Contractual cash flows | | | | | |
|---|---|---|---|---|---|---|---|
| | Carrying amount | Total | Less than 3 months | Between 3 months and 1 year | Between 1 and 2 years | Between 2 and 5 years | Over 5 years |
| Trade and other payables | 81,189 | –81,189 | –79,240 | –1,949 | | | |
| Accrued expenses | 6,808 | –6,808 | –6,308 | –500 | | | |
| Other non-current liabilities | 201 | –201 | | | | | –201 |
| Loans and borrowings | 215,764 | –239,853 | –1,147 | –59,227 | –4,699 | –174,779 | |
| **Non-derivative financial liabilities** | **303,962** | **–328,051** | **–86,695** | **–61,676** | **–4,699** | **–174,779** | **–201** |
| Forward exchange contracts used for hedging: | | | | | | | |
| – Outflow | 2,127 | –152,541 | –35,334 | –95,731 | –21,476 | | |
| – Inflow | | 150,414 | 34,709 | 94,520 | 21,186 | | |
| **Derivative financial liabilities** | **2,127** | **–2,127** | **–624** | **–1,211** | **–291** | | |

**Capital risk management**

The 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. In order to maintain or adjust the capital structure, the Group may adjust the amount of dividends paid to shareholders, return capital to shareholders, issue new shares or sell assets to reduce debt.

Capital is measured based on the Group's consolidated financial statements and monitored closely on an ongoing basis. The target of the management for the period under review was to strengthen the capital basis to sustain and support further development of the business. This goal was achieved by the positive operating results of the Group.

The equity ratio was as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Total equity | 564,170 | 558,007 |
| Total balance sheet | 968,187 | 991,133 |
| **Equity ratio** | **58.3%** | **56.3%** |

## 32. Contingencies and commitments

As at the date of the financial statements, the Group had no contingent assets or liabilities. As of December 31, 2018 and 2017, no assets were pledged.

Capital expenditure contracted for at the end of the reporting period, but not yet incurred was as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Property, plant and equipment | 15,619 | 13,858 |
| Intangible assets | 748 | 1,261 |
| **Total** | **16,367** | **15,119** |

The Group leases various offices and warehouses under non-cancellable operating lease agreements. The lease terms are between one and ten years, and the majority of lease agreements are renewable at the end of the lease period at market rate. The lease expenditure charged to the income statement during the period amounted to CHF 2.5 million (prior year: CHF 2.5 million).

The future aggregate minimum lease payments under non-cancellable operating leases are as follows:

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| No later than 1 year | 2,675 | 1,865 |
| Later than 1 year and no later than 5 years | 6,421 | 4,234 |
| Later than 5 years | 91 | 385 |
| **Total** | **9,187** | **6,483** |

## 33. Related-party transactions

The following transactions were carried out with related parties:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Contribution to Swiss pension plan | 6,510 | 5,951 |

Business transactions with related parties are based on arm's-length conditions.

Key management personnel includes members of the Group Executive Committee of VAT Group AG. The compensation paid or payable to key management personnel for employee services is shown below:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Short-term employee benefits | 2,135 | 1,399 |
| Post-employment benefits | 179 | 169 |
| Share-based payments | 226 | 125 |
| **Total** | **2,540** | **1,693** |

Year-end balances arising from transactions with related parties include:

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Other payables due to Swiss autonomous employee benefit plan | 947 | 0 |
| Other payables due to governing bodies | 120 | **0** |
| Accrued expenses and deferred income due to governing bodies | 201 | 269 |
| Post-employment benefit obligation (Swiss autonomous employee benefit plan) | 39,534 | 27,237 |

Shares held by the Board of Directors and the Group Executive Committee are disclosed in note 4.3. of the statutory financial statements of VAT Group AG.

### 34. Subsequent events

The Company has evaluated subsequent events through March 7, 2019, which represents the date when the consolidated financial statements were approved.

### 35. List of subsidiaries

The subsidiaries of the Company as of December 31, 2018 are the following:

| Country | Company | Function | Currency | Capital in thousands | Share |
|---|---|---|---|---|---|
| China | VAT Vacuum Valves Shanghai Company Ltd., Shanghai | D | CNY | 1,618 | 100% |
| France | VAT SARL, Verrières-le-Buisson | D | EUR | 50 | 100% |
| Germany | VAT Deutschland GmbH, Dresden | D | EUR | 26 | 100% |
| Japan | VAT Ltd., Yokohama | D | JPY | 96,470 | 100% |
| Korea | VAT Korea Ltd., Pyeongtaek City | D | KRW | 300,000 | 100% |
| Luxembourg | VAT Management S.à r.l., Luxembourg | H | CHF | 30 | 100% |
| Malaysia | VAT Manufacturing Malaysia Sdn. Bhd., Penang | P | MYR | 1,000 | 100% |
| Romania | Sysmec S.R.L., Arad | D/P | RON | 6,771 | 100% |
| Singapore | VAT Singapore Pte. Ltd., Singapore | D | SGD | 500 | 100% |
| Switzerland | VAT Vakuumventile AG, Sennwald | D/P | CHF | 100 | 100% |
| | Comvat AG, Sennwald | D/P | CHF | 275 | 100% |
| | VAT Holding AG, Sennwald | H | CHF | 300 | 100% |
| Taiwan | VAT Taiwan Co. Ltd., Hsin-Chu City | D/P | TWD | 12,000 | 100% |
| United Kingdom | VAT Vacuum Products Ltd, Warwickshire | D | GBP | 1 | 100% |
| USA | VAT Inc., Delaware | D | USD | 1 | 100% |

D: Distribution, H: Holding, P: Production

### 36. Changes in accounting policies

A number of standards have been modified on miscellaneous points with effect from January 1, 2018. None of these amendments had a material effect on the Group’s financial statements.

### 37. Summary of significant accounting policies

The principal accounting policies applied in the preparation of these consolidated financial statements are set out below. These policies have been consistently applied to the years presented, unless otherwise stated in these notes to the financial statements.

**Basis of consolidation**

**Subsidiaries** Subsidiaries are entities controlled by the Group. The Group controls an entity when the Group is exposed to, or has rights to, variable returns from its involvement with the entity 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 from the date on which control commences until the date on which control ceases.

**Transactions eliminated on consolidation** The Group eliminates all intra-group transactions as part of the Group's consolidation process. Any unrealized gains and losses arising from intra-group transactions are eliminated. Unrealized losses are eliminated in the same way as unrealized gains, but only to the extent that there is no evidence of impairment. Companies are fully consolidated from the date on which control is transferred to the Group. They are deconsolidated from the date on which control ceases.

**Loss of control** When the Group loses control over a subsidiary, it derecognizes the assets and liabilities of the subsidiary, and any related non-controlling interests (NCI) and other components of equity. Any resulting gain or loss is recognized in profit or loss. Any interest retained in the former subsidiary is measured at fair value when control is lost.

**Foreign currency translation**

Items included in the financial statements of each of the Group's entities are measured using the currency of the primary economic environment in which the entity operates ("the functional currency"). Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuations where items are remeasured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognized in the income statement, except when deferred in other comprehensive income as qualifying hedges.

For consolidation purposes, the results and financial position of all Group entities that have a functional currency different from the presentation currency are translated into the presentation currency. Assets and liabilities for each balance sheet presented are translated at the closing rate at the date of that balance sheet. Income and expenses for each income statement are translated at yearly average exchange rates which are reasonable approximation of the spot rates. All resulting exchange differences are recognized in other comprehensive income.

Foreign exchange gains and losses that relate to borrowings, cash and cash equivalents are presented in the income statement within "Finance income/(expenses)." All other foreign exchange gains and losses are presented in the income statement within "Other income/(expenses)."

The following table summarizes the principal exchange rates used for translation purposes:

| | Average exchange rates in CHF | | Closing exchange rates in CHF | |
|---|---|---|---|---|
| | 01.01.–31.12.2018 | 01.01.–31.12.2017 | 31.12.2018 | 31.12.2017 |
| 1 Euro | 1.15 | 1.11 | 1.13 | 1.17 |
| 100 Japanese Yen | 0.89 | 0.88 | 0.89 | 0.87 |
| 100 Korean Won | 0.09 | 0.09 | 0.09 | 0.09 |
| 1 Malaysian Ringgit | 0.24 | 0.23 | 0.24 | 0.24 |
| 1 US Dollar | 0.98 | 0.98 | 0.98 | 0.98 |

**Revenue recognition**

Revenue is measured based on the consideration specified in a contract with a customer. The Group recognizes revenue when it transfers control over a good or service to a customer. Customers obtain control of the goods dependent on standard trade terms (Incoterms) or when services are rendered. The Group uses different Incoterms, generally EXW, FCA and DDP. Contracts include only standard warranty clauses and do not provide for separate purchase of warranty. Payment conditions are short term and therefore do not contain significant financing components.

**Interest income**

Interest income or expense is recognized using the effective interest method. The "effective interest rate" is the rate that exactly discounts estimated future cash payments or receipts through the expected life of the financial instrument to:

- the gross carrying amount of the financial asset; or
- the amortized cost of the financial liability.

In calculating interest income and expense, the effective interest rate is applied to the gross carrying amount of the asset (when the asset is not credit-impaired) or to the amortized cost of the liability. However, for financial assets that have become credit-impaired subsequent to initial recognition, interest income is calculated by applying the effective interest rate to the amortized cost of the financial asset. If the asset is no longer credit-impaired, then the calculation of interest income reverts to the gross basis.

**Dividend income**

Dividend income is recognized when the right to receive payment is established.

**Leases**

The determination of whether an arrangement is (or contains) a lease is based on the substance of the arrangement at the inception of the lease. The arrangement is, or contains, a lease if fulfillment of the arrangement is dependent on the use of a specific asset or assets and the arrangement conveys a right to use the asset or assets, even if that right is not explicitly specified in an arrangement. At inception or on reassessment of an arrangement that contains a lease, the Group separates payments and other consideration required by the arrangement into those for the lease and those for other elements on the basis of their relative fair values. If the Group concludes for a finance lease that it is impracticable to separate the payments reliably, then an asset and a liability are recognized at an amount equal to the fair value of the underlying asset; subsequently, the liability is reduced as payments are made and an imputed finance cost on the liability is recognized using the Group's incremental borrowing rate.

**Group as a lessor**

Lease agreements in which the other party, as lessee, is to be regarded as the economic owner of the leased assets are classified as finance lease. Receivables from finance leases in which the Group as lessor transfers substantially all the risks and rewards in connection with ownership to the lessee are recognized at an amount equal to the discounted future minimum lease payments. Finance lease income – reported under "Finance income" – is subsequently recognized based on a pattern reflecting a constant periodic rate of return on the net investment using the effective interest method.

**Government grants**
Grants from the government are recognized at their fair value where there is a reasonable assurance that the grant will be received and the Group will comply with all attached conditions. Government grants relating to property, plant and equipment are split into current and non-current liabilities as deferred government grants and are credited to the income statement within "Other income" on a straight-line basis over the expected lives of the related assets.

**Share-based payments**
The grant date fair value of the equity-settled share-based payment arrangement granted to senior management (LTIP) is recognized as an expense, with a corresponding increase in equity, over the vesting period of the awards. The amount recognized as an expense is adjusted to reflect the number of awards for which the related service and non-market performance conditions are expected to be met, such that the amount ultimately recognized is based on the number of awards that meet the related service and non-market performance conditions at the vesting date.

**Research and development costs**
The majority of the expenses are incurred in relation to basic research product management and R&D support/overheads, and these are charged directly to the income statement. Expenses directly related to development costs for new products are capitalized and amortized over a period of five years if these concern major development projects. They are reviewed at the end of each reporting period in order to verify if the capitalization criteria of IAS 38.57 are fulfilled.

**Cash and cash equivalents**
In the consolidated statement of cash flows, cash and cash equivalents include cash on hand, deposits held at call with banks, other short-term highly liquid investments with original maturities of three months or less and bank overdrafts. In the consolidated balance sheet, bank overdrafts are shown within borrowings in current liabilities.

**Financial instruments**
The Group classifies non-derivative financial assets in the following categories: financial assets at fair value through profit or loss (FVTPL) and financial assets measured at amortized cost. Financial assets are not reclassified subsequent to their initial recognition unless the Group changes its business model for managing financial assets, in which case all affected financial assets are reclassified on the first day of the first reporting period following the change in the business model.

**Financial assets at fair value through profit or loss** are financial assets held for trading. A financial asset is classified in this category if acquired principally for the purpose of selling in the short term. Derivatives are also categorized as held for trading unless they are designated as hedges. Assets in this category are classified as current assets if expected to be settled within 12 months, otherwise they are classified as non-current.

**A financial asset measured at amortized cost** is a non-derivative financial asset if both of the following conditions are met and if it is not designated as FVTPL: it is held within a business model whose objective is to hold assets to collect contractual cash flows and its contractual terms give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding. They are included in current assets, except for maturities greater than 12 months after the end of the reporting period. These are classified as non-current assets. The category financial assets measured at amortized cost comprise "Cash and cash equivalents", "Trade and other receivables" and "Accrued income" on the balance sheet.

**Recognition and measurement** Trade receivables and debt securities issued are initially recognized when they are originated. All other financial assets and financial liabilities are initially recognized when the Group becomes a party to the contractual provisions of the instrument.

A financial asset (unless it is a trade receivable without a significant financing component) or financial liability is initially measured at fair value plus, for an item not at fair value through profit or loss, transaction costs that are directly attributable to its acquisition or issue. A trade receivable without a significant financing component is initially measured at the transaction price.

Financial assets carried at fair value through profit or loss are initially recognized at fair value, and transaction costs are expensed in the income statement. Financial assets are derecognized when the rights to receive cash flows from the investments have expired or have been transferred and the Group has transferred substantially all risks and rewards of ownership. Financial assets at fair value through profit or loss are subsequently carried at fair value. Financial assets measured at amortized cost are subsequently carried at amortized cost using the effective interest method. Gains or losses arising from changes in the fair value of the "Financial assets at fair value through profit or loss" category are presented in the income statement in the period in which they arise.

**Impairment**

The Group recognizes loss allowances for ECLs on financial assets measured at amortized cost and measures loss allowances at an amount equal to lifetime ECLs. When determining whether the credit risk of a financial asset has increased significantly since initial recognition and when estimating ECLs, the Group considers reasonable and supportable information that is relevant and available without undue cost or effort. This includes both quantitative and qualitative information and analysis, based on the Group's historical experience and informed credit assessment and including forward-looking information. At each reporting date, the Group assesses whether financial assets are credit-impaired. A financial asset is "credit-impaired" when one or more events that have a detrimental impact on the estimated future cash flows of the financial asset have occurred.

**Offsetting** Financial assets and liabilities are offset and the net amount presented in the balance sheet when, and only when, the Group has a legally enforceable right to offset the amounts and intends either to settle them on a net basis or to realize the asset and settle the liability simultaneously.

**Derivative financial instruments**

Derivatives are initially recorded at fair value and subsequently adjusted for fair value changes. The measurement of derivatives in the Group's balance sheet is based on internal valuations or on the valuation of the respective financial institution. VAT applies hedge accounting in accordance with IFRS 9 to hedge balance sheet items and future cash flows, thus reducing income statement volatility. Changes in the value of instruments designated as fair value hedges are recorded together with the change in fair value of the underlying item directly in the income statement, net. The effective portion of instruments designated as cash flow hedges is recognized in other comprehensive income. The ineffective portion of such instruments is recorded in financial result, net. Changes in value resulting from cash flow hedges recognized in equity through the consolidated statement of comprehensive income are reclassified in the income statement in the period in which the cash flow from the hedged transaction is recognized in the income statement.

**Inventories**

Inventories are stated at the lower of cost and net realizable value. Cost is determined using the weighted average cost method. The cost of finished goods and work in progress comprises raw materials, direct labor, other direct costs and related production overheads (based on normal operating capacity). It excludes borrowing costs. Net realizable value is the estimated selling price in the ordinary course of business, less applicable variable selling expenses.

**Property, plant and equipment**

Property, plant and equipment are measured at historic or manufacturing costs less accumulated depreciation. If significant parts of an item of property, plant and equipment have different useful lives, these are accounted for as separate items of property, plant and equipment.

Subsequent costs are included in the asset's carrying amount or recognized as a separate asset, as appropriate. In case of replacements, the carrying amount of the replaced part is derecognized.

Depreciation of property, plant and equipment is calculated using the straight-line method based on the following useful lives: long-leased land (60 years), buildings (20–40 years), machinery (5–8 years), furniture/fixtures (3–8 years), other equipment (3–12 years). Leased assets are depreciated over the shorter of the lease term and their useful lives unless it is reasonably certain that the Group will obtain ownership by the end of the lease term. Land is not depreciated. Repairs and maintenance are charged to the income statement during the financial period in which they are incurred.

Depreciation methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate. An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount. Gains and losses on disposals are determined by comparing the proceeds with the carrying amount and are recognized in the income statement.

**Investment properties**

The Group owns undeveloped land, commercial and residential properties that are held to earn long-term rental income and for capital appreciation. The properties are not occupied by the Group. Investment property is carried at cost less depreciation. Depreciation on commercial and residential property is calculated using the straight-line method to allocate its costs to its residual values over its estimated useful life of 20 to 40 years for commercial property and 50 years for residential property. Any gain or loss on disposal of investment property is recognized in the consolidated income statement. Rental income from investment property leased to a third party under operating lease is recognized in "Other income" in the income statement.

**Goodwill and intangible assets**

Goodwill arising on the acquisition of subsidiaries is measured at cost less accumulated impairment losses. Goodwill is not amortized. For the purpose of impairment testing, goodwill acquired in a business combination is allocated to the CGUs, or groups of CGUs, that are expected to benefit from the synergies of the combination. Each unit or group of units to which the goodwill is allocated represents the lowest level within the entity at which the goodwill is monitored for internal management purposes. Goodwill is monitored at the level of the segments as laid out in note 20. Goodwill impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. Any impairment is recognized immediately as an expense and is not subsequently reversed.

Intangible assets, including technology and customer relationships that are acquired by the Group and have finite useful lives, are measured at cost less accumulated amortization and any accumulated impairment losses. For intangible assets with indefinite useful lives, such as brands and trademarks, an impairment test is conducted annually at the balance sheet date, or on the occurrence of a triggering event. The Group considers that the acquired brands and trademark have an indefinite useful life as they are well established in the respective markets and have a history of strong performance.

Acquired computer software licenses are capitalized on the basis of costs incurred to acquire and bring to use the specific software. Subsequent expenditure is capitalized only when it increases the future economic benefits embodied in the specific asset to which it relates. All other expenditure, including expenditure on internally generated goodwill and brands, is recognized in profit or loss as incurred. Amortization is calculated using the straight-line method over the estimated useful lives and is generally recognized in the consolidated income statement. The estimated useful lives are as follows: acquired technology & customer relationships (13.5–20 years), brands and trademarks (indefinite useful life), software (3–5 years), other intangible assets (3–5 years). Amortization methods, useful lives and residual values are reviewed at each reporting date and adjusted if appropriate.

The capitalization of internally generated intangible assets is subject to the following development categories: development of own software applications or product-related development activities. Development costs that are directly attributable to the design and testing of identifiable and unique products controlled by the Group are recognized as intangible assets when the criteria are met. Directly attributable costs capitalized as part of the developed product include employee costs, third-party material and advisory expenses. Other development expenditures that do not meet these criteria are recognized as an expense as incurred. Development costs previously recognized as an expense are not recognized as an asset in a subsequent period. Development costs recognized as assets are amortized over their estimated useful lives, which does not exceed five years.

**Impairment of non-financial assets**

Goodwill, intangible assets that have an indefinite useful life and intangible assets not ready to use are not subject to amortization and are tested annually for impairment or whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. Tangible and intangible assets that are subject to depreciation or amortization are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash-generating units). Prior impairments of non-financial assets (other than goodwill) are reviewed for possible reversal at each reporting date. An impairment loss is recognized if the carrying amount of an asset exceeds its recoverable amount. The recoverable amount is the greater of the value in use of the asset and its fair value less costs of disposal. Value in use is based on the estimated future cash flows, discounted to their present value using a pre-tax discount rate that reflects current market assessments of the time value of money and the risks specific to the asset. Impairment losses are recognized in the consolidated income statement and will be reversed only to the extent that the asset's carrying amount does not exceed the carrying amount that would have been determined, net of depreciation or amortization, if no impairment loss had been recognized.

**Trade payables**

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less (or in the normal operating cycle of the business if longer). If not, they are presented as non-current liabilities. Trade payables are subsequently measured at amortized cost using the effective interest method.

**Loans and borrowings**

Loans and borrowings are recognized initially at fair value, net of transaction costs incurred. Borrowings are subsequently carried at amortized cost; any difference between the proceeds (net of transaction costs) and the redemption value is recognized in the consolidated income statement over the period of the borrowings using the effective interest method.

**Current and deferred income tax**

Income tax expense comprises current and deferred tax. It is recognized in the consolidated income statement, except to the extent that it relates to items recognized in other comprehensive income or directly in equity. In this case, the tax is also recognized in other comprehensive income or directly in equity, respectively.

Current income tax comprises the expected tax payable or receivable on the taxable income or loss for the year and any adjustment to the tax payable or receivable in respect of previous years. The amount of current income tax payable or receivable is the best estimate of the tax amount expected to be paid or received that reflects uncertainty related to income taxes, if any. It is measured using tax rates enacted or substantively enacted at the reporting date. Current income tax also includes any tax arising from dividends.

Current tax assets and liabilities are offset only if certain criteria are met.

Deferred income tax is recognized in respect of temporary differences between the carrying amount of assets and liabilities for financial purposes and the amounts used for taxation purposes. However, deferred tax liabilities are not recognized if they arise from the initial recognition of goodwill; deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither accounting nor taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantively enacted by the balance sheet date and are expected to apply when the related deferred tax asset is realized or the deferred tax liability is settled.

Deferred tax assets are recognized for unused tax losses and deductible temporary differences to the extent that it is probable that future taxable profit will be available against which they can be used. Future taxable profits are determined based on business plans for individual subsidiaries in the Group. Deferred tax assets are reviewed at each reporting date and are reduced to the extent that it is no longer probable that the related tax benefit will be realized; such reductions are reversed when the probability of future taxable profits improves.

Unrecognized deferred tax assets are reassessed at each reporting date and recognized to the extent that it has become probable that future taxable profits will be available against which they can be used.

Deferred tax liabilities are provided on taxable temporary differences arising from investments in subsidiaries, except where the timing of the reversal of the temporary difference is controlled by the Group and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets are recognized on deductible temporary differences arising from investments in subsidiaries, only to the extent that it is probable that the temporary difference will reverse in the future and there is sufficient taxable profit available against which the temporary difference can be utilized.

Deferred tax assets and liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and when the deferred tax assets and liabilities relate to income taxes levied by the same taxation authority on either the same taxable entity or different taxable entities where there is an intention to settle the balances on a net basis.

**Provisions**

Provisions are determined by discounting the expected future cash flows at a pre-tax rate that reflects current market assessments of the time value of money and the risks specific to the liability. The unwinding of the discount is recognized as finance cost. A provision for warranties is recognized when the underlying products or services are sold, based on effective warranty cases on historical warranty data and a weighting of possible outcomes against their associated probabilities.

**Employee benefits**

Short-term employee benefits are expensed as the related service is provided. A liability is recognized for the amount expected to be paid if the Group has a present legal or constructive obligation to pay this amount as a result of past service provided by the employee and the obligation can be estimated reliably.

The Group operates various post-employment schemes, including both defined benefit and defined contribution pension plans. A defined contribution plan is a pension plan under which the Group pays fixed contributions into a separate entity. The Group has 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 pension plan that is not a defined contribution plan.

Obligations for contributions to defined contribution plans are expensed as the related service is provided. Prepaid contributions are recognized as an asset to the extent that a cash refund or a reduction in future payments is available.

Typically defined benefit plans define an amount of pension benefit that an employee will receive on retirement, usually dependent on one or more factors such as age, years of service and compensation. The liability 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. 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. In countries where there is no deep market in such bonds, the market rates on government bonds are used.

Remeasurements of the net defined benefit liability, which comprise actuarial gains and losses and the return on plan assets (excluding interest) are charged or credited to equity in other comprehensive income in the period in which they arise.

The Group determines the net interest expense on the net defined benefit liability for the period by applying the discount rate used to measure the defined benefit obligation at the beginning of the period to the then net defined benefit liability, taking into account any changes in the net defined benefit liability during the period as a result of contributions and benefit payments. In the income statement, the net interest expense is recognized within “Finance costs.” Other expenses related to defined benefit plans are recognized within “Employee benefit expenses.”

Past-service costs are recognized immediately in the consolidated income statement.

For defined contribution plans, the Group pays contributions to publicly or privately administered pension insurance plans on a mandatory, contractual or voluntary basis. The Group has no further payment obligations once the contributions have been paid.

**Equity**

Incremental costs directly attributable to the issue of ordinary shares are recognized as a deduction from equity. Income tax relating to transaction costs of an equity transaction are accounted for in accordance with IAS 12.

When shares recognized as equity are repurchased (treasury shares), the amount of the consideration paid, which includes directly attributable costs is recognized as a deduction from equity. Repurchased shares are classified as treasury shares. When treasury shares are sold or reissued subsequently, the amount received is recognized as an increase in equity and the resulting surplus or deficit on the transaction is presented within retained earnings.

**Earnings per share**

The number of ordinary shares for the calculation of the earnings per share is determined on the basis of the weighted average of the issued ordinary shares less the weighted average number of the treasury shares. For the calculation of diluted earnings per share, an adjusted number of shares is calculated as the sum of the total of the ordinary shares used to calculate the earnings per share and the potentially dilutive shares from share-based payment programs. The dilution from share-based payment programs is determined on the basis of the number of ordinary shares that are expected to be paid out to employees from currently held treasury shares. Earnings per share and diluted earnings per share are defined as the ratio of the attributable net income to the relevant number of ordinary shares.

## 38. Standards issued but not yet effective

A number of new standards and amendments to standards are effective for annual periods beginning after January 1, 2019, and earlier application is permitted; however, the Group has not early applied the following, for the Group relevant, new or amended standards in preparing these consolidated financial statements.

**IFRS 16 Leases**

IFRS 16 will replace IAS 17 and sets out the principles for the recognition, measurement, presentation and disclosure of leases. IFRS 16 introduces a single lessee accounting model and requires a lessee to recognize assets and liabilities for almost all leases and will therefore result in an increase of total assets and total liabilities. Under the new standard higher trading operating profit would be partially or entirely offset by higher interest expenses. This standard is mandatory for the accounting period beginning on January 1, 2019. The Group applies IFRS 16 initially on January 1, 2019, using the modified retrospective approach. The corresponding right-of-use assets will be recognized in the amount of the leasing liabilities. As of January 1, 2019, right-of-use assets and leasing liabilities aggregating some CHF 10.1 million will be recognized from the initial adoption of IFRS 16. The comparative prior-year's figures will not be restated. The adoption of IFRS 16 has no impact on equity as of January 1, 2019. With regard to the 2019 financial year, the application of IFRS 16 will lead to an increase in operating income before depreciation, amortization and impairment losses (EBITDA) of some CHF 2.9 million and to higher depreciation and amortization as well as interest expense of a combined aggregate amount of some CHF 3.0 million. The actual impact will depend on future economic conditions, the Group's latest assessment of whether it will exercise any lease renewal options and the extent to which the Group chooses to use practical expedients and recognition exemptions.

**Improvements and other amendments to IFRS**

A number of standards have been modified on miscellaneous points. None of these amendments are expected to have a material effect on the Group's consolidated financial statements.

# Statutory Auditor's Report

**To the General Meeting of VAT Group AG, Sennwald**

**Report on the Audit of the Consolidated Financial Statements**
**Opinion**
We have audited the consolidated financial statements of VAT Group 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 statement of changes in equity and consolidated statement of cash flows 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 76 to 124) 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 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.

**Key Audit Matters**

**Revenue Recognition**
Key audit matters are those matters that, in our professional judgment, 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.

KPMG

**Revenue Recognition**

**Key Audit Matter**

Revenues are an important metric considered by external and internal stakeholders. Revenues recognized for the year ended 31 December 2018 amounted to CHF 698m (2017: CHF 692m) and are primarily related to the sale of vacuum valves, bellows and service support.

Revenue is a key performance indicator and therefore in the focus of internal and external stakeholders. VAT Group recognises revenues related to the sale of goods when risks, rewards and control are transferred to the counterparty. In general, contractual agreements with customers define when risks and rewards are transferred, as specific terms and conditions are mentioned in the contracts. There is a risk that revenues may be recognised in the wrong accounting period.

There is an additional risk that revenues may be deliberately over- or understated as a result of management override resulting from the pressure management may feel to achieve planned results. This could for example occur by manipulating inputs in the Group's accounting system.

In 2018, IFRS 15 was applicable for the first time. The Group implemented the new standard using the cumulative effect method (without practical expedients), comparative figures have not been restated. A comprehensive impact analysis has been performed by VAT Group. IFRS 15 predominantly had an impact on disclosure obligations in the consolidated financial statements, but no material impact on B/S or P&L of the Group.

**Our response**

When performing the audit, we had a focus on the appropriate recognition of revenue transactions, including the Group's implementation of IFRS 15.

We performed testing of the key controls around revenue recognition, which included performing walkthroughs and testing the operating effectiveness of internal controls.

Furthermore, our procedures included detailed cut-off testing of revenue transactions to either side of the balance sheet date with reference to shipping documentation. In addition, we obtained trade debtors confirmations and performed a gross margin trend analysis to compare revenues with our expectations from past experience and management's forecasts.

In addition to the procedures described above, we considered the risk of management override by analysing delivery volumes and order intake prior to year-end in order to address the risk of an over- or understatement of revenues.

We challenged the group's impact analysis and verified the outcome by sample testing of customer contracts.

Moreover we assessed the Group's disclosures relating to revenue recognition.

For further information on revenue recognition refer to the following: Note 37 "Summary of significant accounting policies"

## 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 of the company, the remuneration report 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.

**Responsibility 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.

As part of an audit in accordance with Swiss law, ISAs and Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the consolidated financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the Group's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the consolidated financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group to cease to continue as a going concern.
- Evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the Group audit. We remain solely responsible for our audit opinion.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the consolidated financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

**Report on Other Legal and Regulatory Requirements**

In accordance with article 728a para. 1 item 3 CO and the 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.

KPMG AG

| | |
|---|---|
| Toni Wattenhofer | Jan Bellinger |
| Licensed Audit Expert | Licensed Audit Expert |
| Auditor in Charge | |

St. Gallen, 7 March 2019

# Statutory financial statements VAT Group AG for the financial year from January 1 to December 31, 2018

# Balance sheet

| As of December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| **Assets** | | | |
| Cash and cash equivalents | | 439 | 212 |
| Other receivables | 3.2 | 55 | 4,443 |
| Prepayments and accrued income | | 707 | 541 |
| **Current assets** | | **1,201** | **5,196** |
| Financial assets | 3.3 | 2,282 | 1,274 |
| Loans granted to companies in which the entity holds an investment | | 39,950 | 97,604 |
| Investments in subsidiaries | 3.1 | 502,850 | 502,850 |
| **Non-current assets** | | **545,082** | **601,728** |
| **Total assets** | | **546,284** | **606,924** |
| | | | |
| **Liabilities** | | | |
| Short-term interest-bearing liabilities due to third parties | | 29,600 | 55,764 |
| Other payables | 3.4 | 477 | 54 |
| Accrued expenses and deferred income | 3.5 | 2,852 | 1,970 |
| **Current liabilities** | | **32,929** | **57,788** |
| Long-term interest-bearing liabilities | 3.3 | 200,000 | 175,408 |
| **Non-current liabilities** | | **200,000** | **175,408** |
| **Total liabilities** | | **232,929** | **233,196** |
| | | | |
| **Equity** | 3.6 | | |
| Share capital | | 3,000 | 3,000 |
| Legal capital reserves: | | | |
| – Reserves from capital contributions | | 255,254 | 375,186 |
| – Other capital reserves | | 3,682 | 3,682 |
| Accumulated losses: | | | |
| – Loss brought forward | | –7,351 | –8,665 |
| – Gain for the period | | 59,457 | 1,314 |
| Treasury shares | 3.7 | –687 | –790 |
| **Total equity attributable to owners of the Company** | | **313,355** | **373,727** |
| **Total liabilities and equity** | | **546,284** | **606,924** |

# Income statement

| January 1-December 31<br>In CHF thousand | Note | 2018 | 2017 |
|---|---|---|---|
| Dividend income | | 64,891 | 0 |
| Interest income | | 2,527 | 4,897 |
| Other financial income | 3.8 | 993 | 6,957 |
| **Total income** | | **68,411** | **11,854** |
| Interest expenses | | –5,065 | –5,163 |
| Other financial expenses | | –1,167 | –2,519 |
| Personnel expenses | | –1,010 | –780 |
| Other operating expenses | 3.9 | –1,712 | –2,077 |
| **Total expenses** | | **–8,954** | **–10,540** |
| **Gain for the period** | | **59,457** | **1,314** |

# Notes to the financial statements VAT Group AG

### 1. General information

VAT Group AG ("the Company") is the parent company of the VAT Group. VAT Group AG was incorporated in Switzerland on February 25, 2016. The registered office of the Company is Seelistrasse 1, CH-9469 Haag, Switzerland. VAT Group AG is listed on the SIX Swiss Exchange since April 14, 2016.

### 2. Basis of preparation

### 2.1 General

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.

### 2.2 Investments in subsidiaries

Investments are valued and accounted for separately at the respective acquisition costs. If there are concrete indications that an investment is overvalued, an impairment loss is recognized.

### 3. Information on balance sheet and income statement items

### 3.1 Significant investments in subsidiaries

VAT Group AG holds the following investment as of December 31:

| Country | Company | Currency | Capital in thousands | | Share in capital and voting rights | |
|---|---|---|---|---|---|---|
| | | | 2018 | 2017 | 2018 | 2017 |
| Luxembourg | VAT Management S.à r.l. | CHF | 30 | 30 | 100% | 100% |

The indirect investments are shown in note 35 of the consolidated financial statements of VAT Group.

### 3.2 Other receivables

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Other receivables due from third parties | 55 | 17 |
| Other receivables from companies in which the entity holds an investment | 0 | 4,426 |
| **Total other receivables** | **55** | **4,443** |

### 3.3 Interest-bearing liabilities

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Short-term interest-bearing liabilities due to third parties | 29,600 | 55,764 |
| **Total short-term interest-bearing liabilities** | **29,600** | **55,764** |
| | | |
| Long-term interest-bearing liabilities due to third parties | 200,000 | 161,737 |
| Long-term interest-bearing liabilities due to companies in which the entity holds an investment | 0 | 13,671 |
| **Total long-term interest-bearing liabilities** | **200,000** | **175,408** |

The terms and conditions of outstanding loans due to third parties are as follows:

| As of December 31, 2018<br>In CHF thousand | Currency | Nominal interest rate | Year of maturity | Carrying amount |
|---|---|---|---|---|
| Revolving credit facility (RCF) | USD | USD LIBOR 1m + 0.95% | 2023 | 24,600 |
| Revolving credit facility (RCF) | CHF | CHF LIBOR 1m + 0.95% | 2023 | 5,000 |
| Fixed-rate bond | CHF | 1.50% | 2023 | 200,000 |
| **Total loans and borrowings at 31.12.2018** | | | | **229,600** |
| Thereof: | | | | |
| Current | | | | 29,600 |
| Non-current | | | | 200,000 |

| As of December 31, 2017<br>In CHF thousand | Currency | Nominal interest rate | Year of maturity | Carrying amount |
|---|---|---|---|---|
| Revolving credit facility (RCF) | USD | USD LIBOR 1m + 1.55% | 2021 | 102,501 |
| Revolving credit facility (RCF) | CHF | CHF LIBOR 1m + 1.45% | 2021 | 115,000 |
| **Total loans and borrowings at 31.12.2017** | | | | **217,501** |
| Thereof: | | | | |
| Current | | | | 55,764 |
| Non-current | | | | 161,737 |

The carrying amount of the financing expenses in connection with the revolving credit facility (RCF) amounts to CHF 2.0 million as at December 31, 2018. These expenses were capitalized and will be recognized in profit and loss over the remaining duration of the credit facility. As at December 31, 2018, CHF 0.4 million (prior year: CHF 0.5 million) are recognized within "Prepayments and accrued income." CHF 1.6 million (prior year: CHF 1.3 million) are disclosed as "Financial assets."

On May 23, 2018, VAT Group issued a fixed-rate bond with a nominal value of CHF 200.0 million, which is listed on the SIX Swiss Exchange (ISIN: CH0417086052). In connection with the bond, financing expenses in the amount of CHF 0.2 million are recognized within "Prepayments and accrued income." CHF 0.7 million are disclosed as "Financial assets." On December 31, 2018, the market value of the bond was CHF 194.5 million.

### 3.4 Other payables

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Other payables due to third parties | 20 | 27 |
| Other payables due to companies in which the entity holds an investment | 338 | 27 |
| Other payables due to governing bodies | 119 | 0 |
| **Total other payables** | **477** | **54** |

### 3.5 Accrued expenses and deferred income

| As of December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Accrued expenses and deferred income due to third parties | 2,467 | 1,521 |
| Accrued expenses and deferred income due to governing bodies | 385 | 449 |
| **Total accrued expenses** | **2,852** | **1,970** |

### 3.6 Equity

As of December 31, 2018, the share capital amounts to CHF 3.0 million and consists of 30,000,000 registered shares at par value of CHF 0.10 each.

The reserves from capital contributions consist of the premium from contribution in kind less issue stamp duty. From a fiscal point of view, any distributions made from reserves from capital contributions are treated the same as a repayment of share capital.

On March 29, 2016, a conditional capital increase of up to 1,500,000 shares was included in the articles of association of VAT Group AG which was not drawn as of December 31, 2018.

### 3.7 Treasury shares

| | 01.01.–31.12.2018 | | 01.01.–31.12.2017 | |
|---|---|---|---|---|
| | Number of shares | Average price | Number of shares | Average price |
| **Treasury shares as at January 1** | **17,547** | **CHF 45.00** | **110,000** | **CHF 45.00** |
| Purchases | 0 | | 0 | |
| Sales | 0 | | –91,063 | CHF 120.14 |
| Share-based payments | –2,283 | CHF 148.12 | –1,390 | CHF 127.57 |
| **Treasury shares as at December 31** | **15,264** | **CHF 45.00** | **17,547** | **CHF 45.00** |

On December 31, 2018, VAT Group held 15,264 treasury shares with an acquisition price of CHF 0.7 million.

### 3.8 Other financial income

Other financial income for the year 2018 consists of gains from the disposal of treasury shares and amounts to CHF 0.2 million (prior year: CHF 7.0 million). The remaining CHF 0.8 million result from net foreign exchange gains on financing activities.

### 3.9 Other operating expenses

| January 1–December 31<br>In CHF thousand | 2018 | 2017 |
|---|---|---|
| Insurance, duties and other charges | 105 | 95 |
| Rental expenses | 5 | 5 |
| Travel expenses | 41 | 92 |
| Consulting and audit fees | 532 | 756 |
| Administration expenses | 1,029 | 1,129 |
| **Total other operating expenses** | **1,712** | **2,077** |

## 4. Other information

### 4.1 Full-time equivalents

VAT Group AG does not have any employees.

### 4.2 Significant shareholders

The following shareholders owned more than 5% of voting rights as of December 31:

| Shareholder | Voting rights as of December 31, 2018 | Voting rights as of December 31, 2017 |
|---|---|---|
| Rudolf Maag | 3,100,570 | 3,100,570 |
| Partners Group | Below 5% | 1,037,486 |
| George Loening | 2,752,291 | Below 5% |
| Massachusetts Mutual Life Insurance Company | 2,467,789 | Below 5% |

### 4.3 Shares held by the Board of Directors and the Group Executive Committee

As of December 31, the members of the Board of Directors and the Group Executive Committee held the shares listed in the following table:

| As of December 31 | 2018 | 2017 |
|---|---|---|
| **Board of Directors** | | |
| Martin Komischke, Chairman | 492 | 0 |
| Ulrich Eckhardt (until May 17, 2018) | n/a | 2,500 |
| Alfred Gantner (until May 17, 2018) | n/a | 0 |
| Hermann Gerlinger | 657 | 0 |
| Heinz Kundert (since May 17, 2018) | 34,117 | 71,456 |
| Urs Leinhäuser | 3,963 | 3,736 |
| Karl Schlegel | 35,253 | 32,536 |
| Libo Zhang (since May 17, 2018) | 0 | n/a |
| **Group Executive Committee** | | |
| Michael Allison, CEO (since March 13, 2018) | 508 | n/a |
| Heinz Kundert, CEO (until March 12, 2018) | 68,234 | 71,456 |
| Andreas Leutenegger, CFO | 34,117 | 68,234 |
| Jürgen Krebs, COO | 0 | 0 |

As of December 31, 2018 and 2017, none of the members of the Board of Directors or the Group Executive Board held conversion rights or options, and no loans or credits were outstanding between the parties and the Company.

### 4.4 Shares granted to the Board of Directors

Members of the Board of Directors receive 30% of the total compensation in restricted shares. VAT Group granted 1,478 shares with a fair value of CHF 152.5 per share for the period 2017/18 (prior period: 1,390 shares). As of December 31, 2018, VAT Group AG allocated 2,132 shares (prior year: 1,247 shares) amounting to CHF 0.2 million (prior year: CHF 0.2 million) to its Board of Directors, which will be transferred in financial year 2019.

### 4.5 Significant events after the balance sheet date

There are no significant events after the balance sheet date which could impact the book value of the assets or liabilities or which should be disclosed here.

## Proposed appropriation of available earnings

Proposal for the appropriation of available earnings by the Board of Directors to the General Meeting:

### Appropriation of available earnings as proposed by the Board of Directors

| In CHF thousand | 2018 |
|---|---|
| **Balance brought forward** | **–7,351** |
| Gain for the period | 59,457 |
| **Total accumulated gains** | **52,106** |

The Board of Directors proposes to the General Meeting to carry forward accumulated gains of CHF 52.1 million.

### Appropriation of reserves from capital contributions

| In CHF thousand | 2018 |
|---|---|
| **Reserves from capital contributions as of 31.12.2018** | **255,254** |
| Dividend payment out of reserves from capital contributions | –120,000 |
| **Reserves from capital contributions carried forward** | **135,254** |

The Board of Directors proposes to the General Meeting to pay a dividend of CHF 120 million from the reserves from capital contributions.

The number of shares with dividend rights will change if the number of own shares held by VAT Group AG changes. The Board of Directors may therefore adapt the total amount of the proposed dividend to the number of shares with dividend rights at the General Meeting.

# Statutory Auditor’s Report

**To the General Meeting of VAT Group AG, Sennwald**

**Report on the Audit of the Financial Statements**
**Opinion**
We have audited the financial statements of VAT Group AG, which comprise the balance sheet as at 31 December 2018, and the income statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion the financial statements (pages 129 to 136) for the year ended 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.

**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 judgment, were of most significance in our audit of the financial statements of the current period. We have determined that there are no key audit matters to communicate in our report.

**Responsibility 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.

As part of an audit in accordance with Swiss law and Swiss Auditing Standards, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made.
- Conclude on the appropriateness of the Board of Directors' use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the entity's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the entity to cease to continue as a going concern.

We communicate with the Board of Directors or its relevant committee regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

We also provide the Board of Directors or its relevant committee with a statement that we have complied with relevant ethical requirements regarding independence, and to communicate with them all relationships and other matters that may reasonably be thought to bear on our independence, and where applicable, related safeguards.

From the matters communicated with the Board of Directors or its relevant committee, we determine those matters that were of most significance in the audit of the financial statements of the current period and are therefore the key audit matters. We describe these matters in our auditor's report, unless law or regulation precludes public disclosure about the matter or when, in extremely rare circumstances, we determine that a matter should not be communicated in our report because the adverse consequences of doing so would reasonably be expected to outweigh the public interest benefits of such communication.

**Report on Other Legal and Regulatory Requirements**

In accordance with article 728a para. 1 item 3 CO and the 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.

KPMG AG

| | |
|---|---|
| Toni Wattenhofer<br>Licensed Audit Expert<br>Auditor in Charge | Jan Bellinger<br>Licensed Audit Expert |

St. Gallen, 7 March 2019

# Shareholder Information

After a solid first-half performance – driven by strong demand across most of VAT's end markets – VAT's share price decreased significantly in the second half of 2018 as VAT's orders declined and it became clear that large capital investments by customers during 2016 and 2017 had created a temporary oversupply of fabrication equipment, especially in the memory semiconductor and OLED display industries. Share prices for all companies exposed to these sectors came under pressure as investors revised their short-term outlooks and reduced their valuations accordingly. Nevertheless, VAT's long-term growth drivers, such as Big Data, device interconnectivity, the Internet of Things and artificial intelligence remain unchallenged, and the company continued to expand its clear No. 1 market position in 2018, with steady profitability and strong free cash flow generation, allowing it to continue to offer an attractive dividend of CHF 4.00 per share.

**Broadening of the shareholder base**

After the last placement of VAT shares by Partners Group in January of 2018, private equity ownership at VAT came to an end. As a consequence, all VAT shares are now held by independent investors. As of the publication of this annual report, there are five shareholders who each own more than 3% of VAT's outstanding shares and whose cumulative shareholding amounts to about 26% of VAT's shares. The free float of VAT shares, as defined by the SIX Swiss Exchange, decreased from approximately 90% at the end of 2017 to approximately 79% at the end of 2018. The number of registered shareholders increased from about 12,000 at the end of 2017 to over 15,500 at the end of 2018.

**Share price development**


In 2018, the price of VAT shares declined from CHF 144.40 to CHF 86.30, a decrease of 40%. During the same period, the Swiss stock market as measured by the SPI ex SLI® TR Index decreased by 16%. On May 23, 2018, shareholders received for the second time a dividend of CHF 4.00 per share.

## Stock exchange listing

| | | | |
|---|---|---|---|
| **Ticker symbol** | VACN (SIX); VACN.S (Reuters); VACN SW (Bloomberg) | **Legal Entity Identifier (LEI)** | 529900MVFK7NVALR7Y83 |
| **Valor number** | 31 186 490 | **Nominal value** | CHF 0.10 per share |
| **ISIN** | CH0311864901 | **Free Float** | Approximately 89% |
| **Market capitalization as of December 31, 2018** | CHF 2.6 bn | **Number of shares outstanding** | 30,000,000 |
| **Exchange** | SIX Swiss Exchange (International Reporting Standard) | **Segment** | Mid & Small Cap Swiss shares |

## Distribution of shareholders by domicile and breakdown of registered shareholders by numbers of shares held

| Number of shares held | |
|---|---|
| Switzerland | 42% |
| Other countries | 24% |
| Shares in transit | 34% |

The vast majority of registered shares not held in Switzerland are held in the rest of Europe (mainly the UK) and the US.

| Number of shares held | |
|---|---|
| 1–100 shares | 6,144 |
| 101–1,000 shares | 8,312 |
| 1,001–10,000 shares | 995 |
| 10,001–100,000 shares | 117 |
| 100,001–1,000,000 | 16 |
| More than 1,000,000 shares | 2 |
| **Total number of shareholders** | **15,546** |

## Market Capitalization
in CHF bn

# 2.6

**Disclosure of shareholdings**

With effect from January 1, 2016, under Art. 110 of the Federal Act on Financial Market Infrastructures (Financial Market Infrastructure Act, FinMIA), anyone who acquires or sells equity securities on their own account and thereby attains, falls below or exceeds the threshold of 3, 5, 10, 15, 20, 25, 33⅓, 50 or 66⅔% of the voting rights in a company (whether or not such rights may be exercised), is subject to a reporting obligation. This obligation applies to anyone who directly, indirectly or in concert with third parties acquires or disposes of shares in a company incorporated in Switzerland whose equity securities are listed in whole or in part in Switzerland. It also applies to anyone who can exercise the voting rights attached to such equity securities at their own discretion. Disclosure must be made to the company and stock exchanges on which the equity securities in question are listed.

**Significant shareholders**

Information on significant shareholders is disclosed on page 45 of this report.

**Dividend policy**

VAT Group AG is committed to an attractive dividend policy that reflects the company's strong free cash flow generation and solid balance sheet. In line with this policy, VAT Group intends to distribute to its shareholders up to 100% of free cash flow to equity (FCFE) so long as the Group's net debt does not significantly exceed 1x EBITDA.

For the fiscal year 2018, VAT's Board of Directors is proposing to pay out a dividend of CHF 4.00 per registered share out of reserves from capital contributions.

**Disclosure policy**

VAT Group AG is committed to open and transparent communication with shareholders, financial analysts, customers, suppliers and all other stakeholders. VAT aims to communicate material developments in its businesses in a timely manner and in compliance with the rules of the SIX Swiss Exchange.

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## Dividend Payout Ratio
in % of Free Cash Flow to Equity

# 100.4

**Investor Relations**

VAT's Investor Relations team manages the company's interaction with the financial community, including attendance at key investor conferences and providing institutional investors and analysts with various opportunities to learn more about VAT Group's strategy, business operations and governance. Investor Relations is based at the Group's headquarters in Haag, Switzerland.

More information is available on the VAT Group website: http://www.vatvalve.com/InvestorRelations/investor-relations.

**Key data on VAT registered shares**

| | | 2018 | 2017 |
|---|---|---|---|
| Share capital | CHF | 3,000,000 | 3,000,000 |
| Number of shares on December 31 | | 30,000,000 | 30,000,000 |
| Nominal value per share | CHF | 0.10 | 0.10 |
| | | | |
| Shares outstanding | | 30,000,000 | 30,000,000 |
| EBITDA per share | CHF | 7.17 | 7.07 |
| Free cash flow per share | CHF | 4.13 | 3.62 |
| Book value per share | CHF | 18.79 | 18.60 |
| | | | |
| Dividend per share[1] | CHF | 4.00 | 4.00 |
| Share price high | CHF | 170.30 | 144.90 |
| Share price low | CHF | 82.70 | 86.65 |
| Closing share price on December 31 | CHF | 86.30 | 144.40 |
| Average daily trading volume | Shares | 193,873 | 115,543 |

1 Proposed by the Board of Directors

# Financial Calendar

| Date | Event |
|---|---|
| **2019** | |
| Tuesday, April 16, 2019 | Q1 2019 trading update |
| Thursday, May 16, 2019 | Annual General Meeting |
| Monday, May 20, 2019 | Ex-date |
| Wednesday, May 22, 2019 | Dividend payment |
| Thursday, August 8, 2019 | Half-year results 2019 |
| Thursday, October 24, 2019 | Q3 2019 trading update |
| | |
| **2020** | |
| Tuesday, March 3, 2020 | Full-year 2019 results |

# Technical Glossary

**Control Valve** A valve that controls pressures or gas flows in different steps of semiconductor manufacturing, by modulating its opening in response to a signal from a controller.

**Deposition** Any process that transfers a material onto a semiconductor wafer. These include physical vapor deposition (PVD), chemical vapor deposition (CVD), and molecular beam epitaxy (MBE), among others.

**Doping** A wafer fabrication process in which exposed areas of silicon are bombarded with chemical impurities to alter the way the silicon conducts electricity.

**Etching** A process for removing material in a specified area through a chemical reaction or physical bombardment.

**Fab** Common name for a semiconductor fabrication plant, a factory used to manufacture integrated circuits.

**Flat-Panel Display (FPD)** Any consumer display device with a flat (planar) surface, in contrast to the curved front of cathode ray tube displays.

**Gate Valve** A valve that regulates the flow of gases, fluids or materials by opening, closing or obstructing a port or passageway.

**Integrated Circuit (IC)** A semiconductor product of electrically connected components (such as transistors and capacitors) fabricated on the same substrate.

**Isolation Valve** Valve used, for example, to seal high-vacuum process chambers from neighboring processes that are at different pressure levels.

**Light-Emitting Diode (LED)** A semiconductor device that emits light when an electric current flows through it.

**Liquid-Crystal Display (LCD)** A type of flat-panel display that uses an array of backlit thin-film transistors to control each pixel.

**Lithography** The transfer of a pattern or image from one medium to another, such as from a photomask to a wafer.

**Load Lock** A chamber used to transfer a wafer from an environment at atmospheric pressure into and out of the vacuum environment used for processing.

**Millibar (mbar)** A unit of pressure, used to measure the level of vacuum (see "Vacuum").

**NAND** A type of flash memory often used in memory cards, USB drives, and solid-state drives.

**Nanometer (nm)** A unit of length; one billionth of a meter, commonly used in the semiconductor industry to describe device dimensions.

**Packaging** The protective container or housing for an electronic component or die, with external terminals to provide electrical access to the components inside.

**Organic Light-Emitting Diode (OLED)** A flat light-emitting technology made by placing a series of organic thin-films between two conductors. When electrical current is applied, a bright light is emitted. OLEDs can be used to make displays and lighting.

**Process Chamber** An enclosed area in which a single process is performed in the manufacture of an integrated circuit or other device.

**Photovoltaic (PV)** A process where light is converted to electricity. Solar PV is the generation of electricity from solar radiation.

**Semiconductor** A material whose electrical conductivity is between that of metals (conductors) and insulators (non-conductors) and can be modified physically or chemically to increase or decrease its conductivity.

**Substrate** The starting material for the semiconductor manufacturing process, typically silicon; also referred to as a wafer.

**Thin-Film** A layer of material ranging from fractions of a nanometer to several micrometers thick.

**Thin Film Transistor (TFT)** A transistor made by depositing thin-films on an active semiconductor layer as well as the dielectric layer and metallic contacts over a supporting (but non-conductive) substrate, i.e. a silicon wafer.

**TFT Technology** is used in liquid crystal displays (LCD) to improve image quality such as addressability and contrast.

**Transfer Valve** Valve used to move substrates such as wafers, glass panels and other materials into and out of manufacturing process chambers.

**Vacuum** A pressure below the ambient atmosphere
- Typical atmospheric pressure at sea level: 1,000 millibars (mbar)
- Pressure at typical cruising altitude for commercial aircraft: 100 mbar
- High vacuum used in coating processes: $10^{-8}$ mbar (1 one-hundred-millionth of a millibar)
- Ultra-high vacuum used in deposition processes: $10^{-10}$ mbar (1 ten-billionth of a millibar)

**Wafer** The thin, circular or nearly square slices of mono- or multicrystalline silicon on which semiconductors and PV cells are built.

# Contact

This complete report is only available in English.

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**Forward-looking Statement**
Forward-looking statements contained herein are qualified in their entirety as there are certain factors that could cause results to differ materially from those anticipated. Any statements contained herein that are not statements of historical fact (including statements containing the words "believes," "plans," "anticipates," "expects," "estimates" and similar expressions) should be considered to be forward-looking statements. Forward-looking statements involve inherent known and unknown risks, uncertainties and contingencies because they relate to events and depend on circumstances that may or may not occur in the future and may cause the actual results, performance or achievements of the company to be materially different from those expressed or implied by such forward-looking statements. Many of these risks and uncertainties relate to factors that are beyond the company's ability to control or estimate precisely, such as future market conditions, currency fluctuations, the behavior of other market participants, the performance, security and reliability of the company's information technology systems, political, economic and regulatory changes in the countries in which the company operates or in economic or technological trends or conditions. As a result, investors are cautioned not to place undue reliance on such forward-looking statements.

Except as otherwise required by law, VAT disclaims any intention or obligation to update any forward-looking statements as a result of developments occurring after the date of this report.

# OUTLOOK 2019:

VAT's mid-term growth drivers – such as the Internet of Things, cloud computing and artificial intelligence – remain firmly in place. Following several years of record growth, however, VAT expects 2019 net sales at constant foreign exchange rates and EBITDA margin to be lower compared with 2018.

VAT maintains its EBITDA margin target of 33%, but its achievement by 2020 depends on 2019 market development, underpinned by continuous improvements in the operating model, global footprint and product innovation.

PASSION. PRECISION. PURITY.