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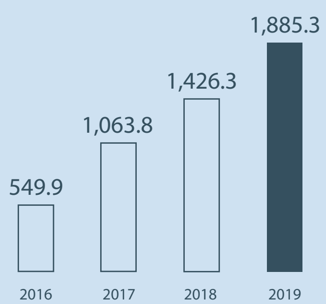
ams AG Annual Report 2019

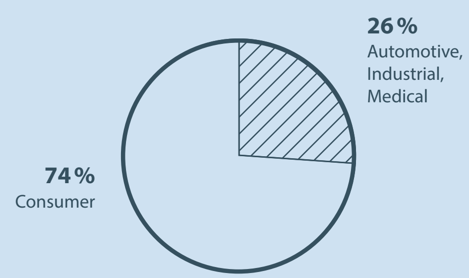
HIGHLIGHTS

In millions of EUR	2019	Changes to 2018	2018	2017
Revenues	**1,885.3**	**32%**	**1,426.3**	**1,063.8**
Gross margin (adjusted)[1]	41%		32%	43%
Gross margin (IFRS reported)	38%		27%	39%
R&D expenses	261.2	9%	239.1	214.0
Operating result (EBIT) (adjusted)[1]	391.7	207%	127.6	168.7
EBIT margin in % (adjusted)[1]	21%		9%	16%
Net result (adjusted)[3]	299.7	2,715%	10.6	127.5
Earnings per share (in EUR, basic)[3]	3.73	2,767%	0.13	1.56
Earnings per share (in CHF, basic)[2][3]	4.15	2,605%	0.15	1.74
Operating cash flow	645.7	105%	315.4	-3.6
Total order backlog (as of December 31)	239.6	-18%	291.8	541.9
Capital expenditures	181.6	-56%	412.9	582.0
Total assets (as of December 31)	4,433.4	24%	3,584.5	3,261.3
Equity ratio	38%		36%	25%
Employees (average)	8,811	-15%	10,322	7,016

Total revenues in EURm

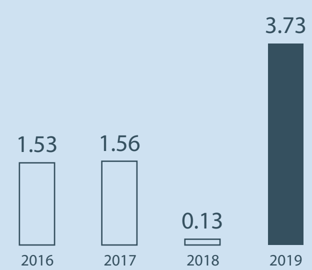


Revenues by market



Operating result (EBIT) in EURm[1]

Earnings per share (EPS) in EUR (basic)[3]



1) Excluding acquisition-related and share-based compensation costs.
2) Earnings per share in CHF were converted using the average currency exchange rate for the respective periods.
3) Net result and earnings per share excluding valuation effect of the option element of the issued USD convertible bond.

2019 was an extra-ordinary year for ams

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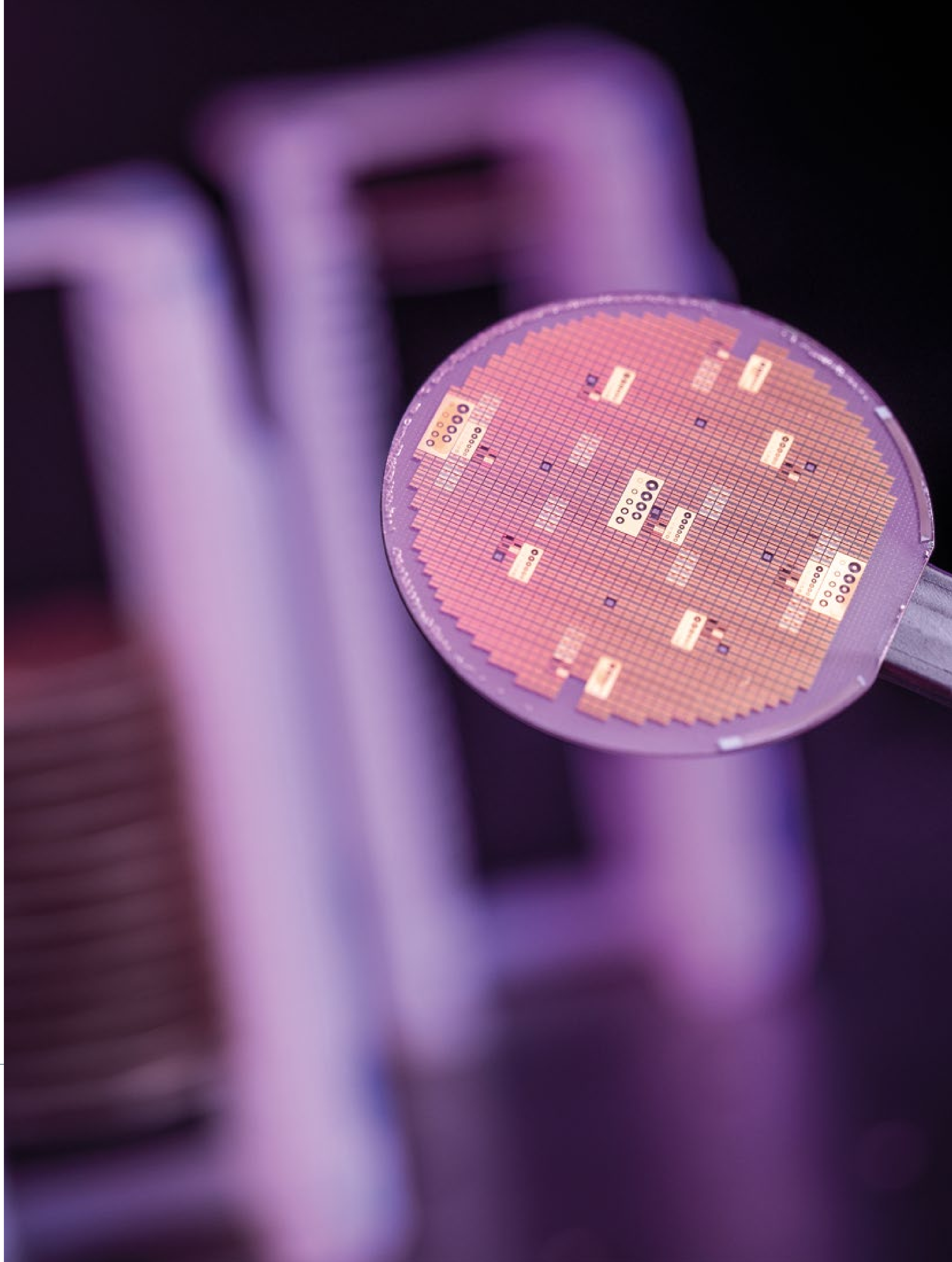

Innovative UV-C-LEDs open new markets – by Osram

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PREFACES BY THE MANAGEMENT BOARD AND THE SUPERVISORY BOARD

Management Board
Alexander Everke, CEO, Michael Wachsler-Markowitsch, CFO,
Thomas Stockmeier, COO, Mark Hamersma, CBO

Preface by the Management Board

Dear Shareholders, Customers, Suppliers, and Employees, Ladies and Gentlemen

2019 was an extraordinary year in our history and also for our future.

Our revenues crossed the two billion USD threshold last year, growing by 32% to a record level of USD 2.09 billion. At the same time, we saw a record adjusted operating profit of USD 433 million for fiscal year 2019. These achievements were particularly driven by the strong performance of our consumer business while our non-consumer businesses recorded more muted results.

The most relevant development last year, however, was our decision to pursue the highly strategic acquisition of OSRAM Licht AG (OSRAM) and our successful public tender offer for OSRAM in December. This success was the result of a highly complex and prolonged tender offer process, which lasted through most of the second half. We faced a number of meaningful challenges over the course of this process but never questioned the underlying strategic rationale for the transaction and the eventual completion of the offer. These included a contested first tender offer against a private equity bidder endorsed by the management of OSRAM, in which we did not reach the minimum acceptance level of shares, as well as navigating a complex legal framework in light of opportunistic event-driven market participants. The acquisition of OSRAM, for which we expect the tender offer to close by summer of this year, not only set a number of precedents for public takeovers in Germany but is also the largest M&A transaction in Austria to date.

We are very excited about the success of our offer because the strategic logic is compelling and clear: The expected acquisition of OSRAM is a highly complementary technology-driven strategic step to create the global leader in sensor solutions and photonics. The expected combination of ams and OSRAM brings together two leaders in optical technologies that will jointly be able to offer market-leading coverage of light emitting technologies, light detecting and sensing, optics, as well as related hardware, software and algorithms. This will create a compelling technology platform enabling breakthrough innovation for new markets and hard-to-match solutions in the optical space. As a result, the combination will drive significant long-term value and profitability for ams shareholders. With a direct shareholding of 23.4%, we are already the largest shareholder of OSRAM and expect to hold around 68% after closing of our successful tender offer. In order to re-finance a portion of the acquisition financing we completed a rights issue capital increase of EUR 1.65bn earlier this year.

Our consumer business was again our key growth driver in 2019 while optical sensing remained the largest product segment for ams. Leading in optical sensing we serve the world's largest consumer OEMs for high value consumer applications, particularly in 3D sensing and display management. Our broad 3D sensing portfolio and system expertise supports all three approaches, structured light (SL), time-of-flight (ToF), and active stereo vision (ASV), for front-facing and world-facing applications. Outstanding system capabilities drive our strong market and technology position in 3D sensing, together with our advanced high power VCSELs. Last year, we expanded our position in the Android market as new world-facing iToF systems which enable better photo quality became highly successful. We also brought ASV technology to the market which offers payment-level security 3D face authentication at lower system complexity and cost. Consequently, we expect ASV to play a significant role in 3D applications in the coming years. In addition, we expect dToF 3D technology to become important given its long distance performance and despite its technical challenges. Here we are successfully advancing development efforts towards a high value ams solution.

In display management, we introduced a significant innovation last year moving high performance proximity and light sensing invisibly behind the OLED display. This unmatched BOLED technology saw strong market success in 2019 as OEMs are keen to reduce visible components on the front side of phones. Leveraging our BOLED know-how for 3D sensing, we now feel confident to move 3D face authentication invisibly behind the display as well. We expect the full ams 3D solution including an ams NIR image sensor will be attractive for OEMs, driving new opportunities in consumer devices. Other consumer lines such as audio sensing developed positively in 2019 while we launched innovative technology for ear- and headphone active noise cancellation.

High-performance integrated LED headlight/indicator module – by Osram

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Expected combination of ams and Osram

Our automotive, industrial, and medical businesses showed a subdued performance last year given a difficult demand environment in the automotive and industrial end markets. In automotive, our business achieved solid results despite a generally unsupportive market situation. We focus on safety, driver assistance/autonomous driving, position sensing, and chassis control and serve a range of Tier 1 suppliers and OEMs. Market traction continued to increase in Asia including Japan while we undertook further significant R&D for LIDAR 3D sensing which supports assisted towards autonomous driving. Based on our VCSEL illumination know-how we won two further LIDAR illumination projects at additional Tier 1 suppliers. Adding to our range of long-term growth opportunities in automotive, in-cabin monitoring is evolving into a meaningful new optical application with a first project won last year. We are also seeing good momentum in the sizeable emerging market for automotive projected lighting.

The industrial business developed in line with muted expectations which reflected weaker end-market demand over the course of 2019. Serving the industrial automation, factory automation, HABA, and other industrial markets as a leading supplier, we address the sensor-rich areas of industrial IoT and Industry 4.0 for new applications including 3D sensing. In industrial imaging and machine vision, we are driving innovation based on our high performance voltage domain global shutter technology. Our medical business saw good growth last year, leveraging our leadership in Medical Imaging for computed tomography (CT) and digital X-ray. We continued to expand our business in Asia and introduced an industry-first ASSP solution for CT imaging that offers innovative monolithic integration of sensing and analog-to-digital conversion. Leading in next generation medical endoscopy, we are successful with our NanEye cameras, the world's smallest cameras for endoscopy.

Our technology portfolio is strong and growing while driving our ability to innovate and differentiate. We use M&A as a tool to accelerate our strategy, which was never more evident than last year with the public tender offer for OSRAM. Actively managing our technology portfolio, we concluded the previously reported joint venture for our environmental business earlier this year and divested our MEMS microphone interface IC assets and IP to long-time customer Knowles Corporation in December 2019. Although that business commands a strong market position the portfolio alignment helps our continuing focus on optical technologies.

We continue to invest strongly into R&D to underline our leading technology position, while our hybrid manufacturing model combines outsourcing with differentiated in-house manufacturing. Last year saw a significant redesign of our manufacturing processes in Singapore as we optimized the extensive capital expenditures of the singular investment cycle 2017/2018. We were able to drive production efficiency and yields strongly higher at lower levels of labor and materials, which resulted in a meaningfully better profitability of our Singapore manufacturing. After successfully completing our internal VCSEL production line last year, we are now ramping volumes as envisaged, which will continue through the current year. This enables us to exploit differentiation opportunities in high power VCSELs through both design and manufacturing.

2019 demonstrated the strength of our business model with robust profitability and growth in the second half following a solid performance in the first half. We drove profits and cash flow from a high value portfolio while honoring our commitment to responsible ESG business practices. Given the pending acquisition of OSRAM we have decided to suspend our cash dividend policy for fiscal year 2019 to concentrate on implementing the transaction. The expected combination with OSRAM and our financial position are supported by strong cash flows which we expect to generate from our business. Reflecting the Covid-19-related macro-economic and end market impacts we remain vigilant focusing on business performance, cash flow generation and the requirements for moving ahead with the combination of ams and OSRAM.

The Supervisory Board offered constructive support for our plans and backed the major strategic decisions of last year. The Supervisory Board was deeply involved in evaluating the OSRAM acquisition and pursuing the transaction through numerous challenges. We are thankful for their endorsement and active participation in this multi-faceted process. Importantly, we would like to thank our customers, partners, shareholders and, above all, the employees of ams. Our global success is built around the creativity, ingenuity, energy, and commitment of our employees worldwide. They are the most important driver for our business working together as "one ams".

This year we focus on executing the OSRAM acquisition, our most significant strategic step to date while driving further differentiation and innovation from the ams portfolio. We do this against the backdrop of the current Covid-19 crisis which has profoundly changed the way all of us work and conduct our business worldwide. We have taken extensive measures to safeguard the health and wellbeing of our staff and work closely with our suppliers and customers to limit the impact on our business. The commitment of our employees is exemplary and we would like to thank them again for their steadfastness during this trying period. At the same time, we are keen to exploit our medical sensing expertise to support Covid-19 control efforts. We see possibilities to accelerate advances in diagnostics through cooperation.

Notwithstanding the Covid-19 situation, we command a very strong market position concentrating on leadership in our focus areas and pursuing long-term profitable growth across end markets. The expected combination with OSRAM will be essential as we move forward on the path to become not only a global leader in sensor solutions and photonics but the worldwide leader in optical technologies.

Alexander Everke CEO	Michael Wachsler-Markowitsch CFO	Dr. Thomas Stockmeier COO	Mark Hamersma CBO

Preface by the Supervisory Board

Dear Shareholders,

ams has not been left unaffected by the current pandemic. To date, we have achieved our goal of protecting the health of our employees, and remaining a reliable partner to our customers, suppliers and finance partners. Although we will still have to live with and work under unavoidable restrictions for a while, we do not see a change in the medium and long-term prospects for our relevant markets and technologies.

2019 was the most successful year in the history of ams. We surpassed our ambitious operational targets despite a deteriorating worldwide economic outlook. With net sales exceeding $2 billion and an adjusted operating margin of 21%, our company posted record figures. The leverage ratios which remained high in 2018 have been substantially reduced as planned. To the benefit of our customers, our company proved capable of developing and integrating new technologies quickly and efficiently, and in marketing these profitably. The latter aspect is particularly important to us as a company looking after your interests as our shareholders. I would like to thank our customers and business partners, and particularly our employees and management for their commitment and congratulate them on this outstanding performance.

The Supervisory Board's main task during the previous year was to reach a decision regarding the public takeover offer to the shareholders of OSRAM Licht AG. The Supervisory Board considered the following criteria as critically important for this endeavor: the level of strategic and technological fit, securing solid financing without restricting the further development of the ams group even when considering volatile macro-economic periods, and the availability of strong management capacities in both companies to realize the strategic potential over the medium term and push forward with the process of integration. Following a series of Supervisory Board meetings and discussions with the Management Board and the advisors involved, the Supervisory Board unanimously decided in favor of both takeover bids. We confirmed your support with a 99.6% vote in favor of the capital increase necessary for the successful financing, delivered at the extraordinary general meeting held on 24 January 2020.

The transaction generated many headlines, particularly in the German media, and we are aware that alternatives were pointed out. Nevertheless, interlocking two internationally leading semiconductor and photonics companies with a complementary market presence and technical expertise ranging from optical sensor technology to laser applications and special light sources opens up new applications and opportunities, which would not have been accessible to either company individually in the medium term. The potential of the new group will therefore be greater than the sum of its individual companies.

Over the previous financial year, the Supervisory Board fulfilled its responsibility in accordance with the law and the company's articles of association, through holding seven Supervisory Board meetings, a strategy meeting, numerous committee meetings and direct face-to-face discussions between the Supervisory Board members, the Management Board and the management. The Supervisory Board was given regular, prompt and comprehensive verbal and written information and updates regarding the general performance of the business, the financial position and other significant issues. Apart from the matters already mentioned, the focus of our work was on the development of a long-term performance-based incentive scheme, strategic decisions regarding the audio and environmental sensing business, management succession planning, the roadmap for software development, silicon and laser technologies, the process for preparing and auditing the annual financial statements, the internal audit function, the risk management system, and the internal control system.

All members attended the Supervisory Board and committee meetings in 2019, and they evaluated the work processes and decision-making of the previous years by way of a self-assessment that was externally supervised and based on structured interviews and questionnaires. Following the annual general meeting 2019, the Supervisory Board was strengthened with Brian Krzanich joining as a new member. As former CEO of Intel and CEO of CDK Global, Brian is regarded as one of the leading representatives of the technology industry in the United States, and we are pleased to have him on board.

The Shareholder Rights Directive II (SRD II), the provisions of which include detailed rights of shareholders to receive information and vote on management remuneration policies and shareholding schemes, was implemented into the national law of Austria. We will therefore present relevant documents to you at this year's annual general meeting. The remuneration policy of ams has two aims: We want to be able to recruit and retain the leading high-achievers in the technical and commercial fields within Europe, the United States and Asia, who will strongly advance the development of the ams Group. We therefore regularly compare our remuneration system with those of international competitors. Furthermore, the management's remuneration is predominantly determined by the overall performance and business success of the company. The Supervisory Board is firmly of the view that this approach will secure the long-term, positive development of the ams group, in a way that also benefits our shareholders.

We thank you for your support, and we are confident that we will together overcome the current health-related and economic challenges.

Hans Jörg Kaltenbrunner
Chairperson of the Supervisory Board

OUR COMPANY

“Sensing is Life” for us

Our Vision

For ams, “Sensing is Life” and our passion is in creating sensor solutions that make devices and technology smarter, safer, more environmentally friendly and easier to use. We are shaping the world with sensor solutions, leading the way in forging continuous connections between people and technology, and envisioning a seamless experience between the two.

Our Company & Strategy

ams’ sensor solutions play an important role in the products and technologies that define our world today – from smartphones and mobile devices to safer driver-assisting vehicles, smart homes and buildings, industrial automation, and medical diagnostics.

Our current corporate strategy targets leadership in sensor solutions for optical, image and audio sensing with a strong focus on optical technologies. We have taken decisive and consistent steps towards this strategic goal and actively manage an advanced technology and product portfolio in our sensing areas.

We focus on industry-leading differentiation and innovation as key success factors for our business. Our sensor solutions excel in complex applications requiring high sensitivity, extreme precision, small form factor, and low power consumption. We serve leading OEMs around the globe with integrated high performance systems that may encompass sensing and related hardware, system and application software, and state-of-the-art algorithms.

Our solutions help take the industry forward while creating important market advantages for our customers. Our technology empowers customers to succeed, allowing them to create products that improve key areas of our lives and enable exciting new end-user experiences.

To implement this strategy and drive technology leadership, we use technology-focused acquisitions as a strategic tool alongside our strong internal R&D efforts.

Last year, we decided to pursue the acquisition of OSRAM Licht AG (OSRAM), a global leader in light emitting technologies, as a transformational strategic step to create the global leader in sensor solutions and photonics.

The expected combination of ams and OSRAM is highly complementary and based on a clear strategic rationale: to combine light emission, light sensing, optics and related technologies into a market-leading portfolio for high value optical applications. This expected combination will accelerate us to win in new breakthrough optical solutions across all end markets – consumer, automotive, industrial and medical. At the same time, it will expedite the diversification of our revenue mix, enhance our manufacturing footprint with clear scale and cost advantages, and leverage the complementary market access and customer relationships. The expected combination will also drive significant ongoing synergies for our company and shareholders.

The expected acquisition of OSRAM builds on the previous acquisitions of Heptagon, the global leader in micro-optics and high-performance optical packaging, and Princeton Optronics, a leader in high power Vertical Cavity Surface-Emitting Lasers (VCSELs), as well as smaller technology additions over the last years. These acquisitions, together with our significant own R&D investments, form the core of our innovation platform for optical technologies. The expected combination of ams and OSRAM will take this platform to a very new level, strongly expanding our opportunities for long-term growth and market success.

Following the expected closing of the transaction, which we expect to happen in the coming months, we will start integrating both companies to harness the competencies, know-how, energy and commitment of the ams and OSRAM employees for our combined future.

Quantum dots, a major innovation in LED color rendering – by Osram

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Latest LED technology for high performance lighting – by Osram

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Our Talent

With around 8,500 employees worldwide, we are one ams. Our employees are the most valuable asset for the company and the most important factor in our leadership position globally. Working together across locations and continents creates our market success and allows us to imagine sensor solutions that make our lives better, safer and more easy to navigate.

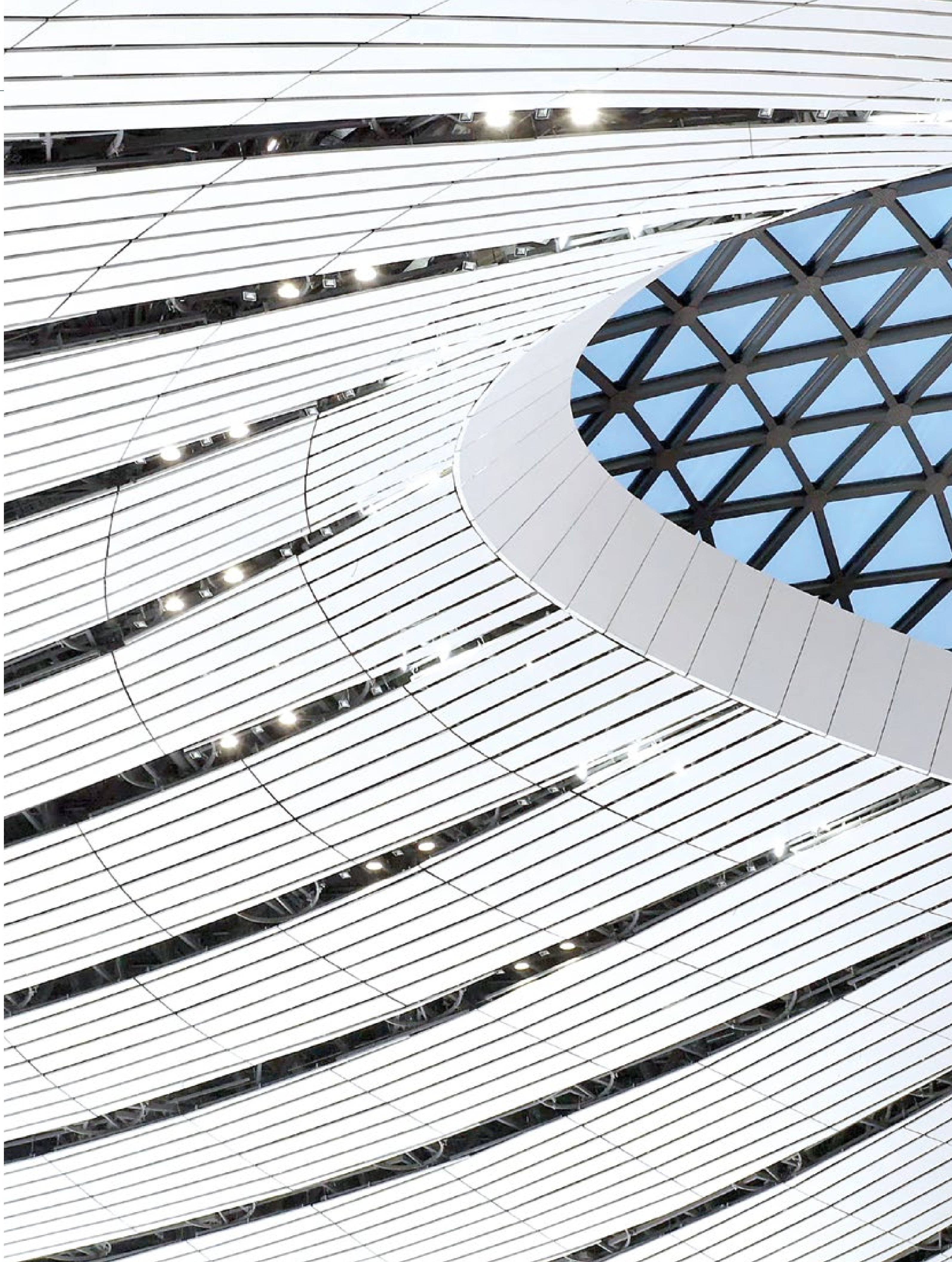
Being successful helps us attract and retain the best and brightest talent in the industry as we offer exciting opportunities and challenges in a highly professional environment. We embrace a wide range of ingenious, creative and unconventional thinkers, who are key drivers of the continuous innovation and leading-edge technologies that we offer our customers worldwide.

The core values of ams define our culture, which is aimed at pushing boundaries. We empower our employees and hold them accountable while pursuing a long-term strategy. We expect integrity in everything we do and want our staff to be loyal, authentic, trustworthy, and true role models. Diversity has been strongly embodied in our culture for a long time. Over 60 nationalities are currently working at ams in locations on three continents. Women comprised about 50% of our total employee base in 2019. We strive to increase their proportion in our technical and engineering areas with women currently accounting for around 17% of our engineering staff.

A central belief for ams is to recognize every employee's effort and commitment and value how everyone contributes to our success in highly competitive markets. We want to offer an attractive, dynamic and positive work environment that supports our strategic goals and our staff's personal development. Our market success creates a wide range of opportunities for personal growth that are highly regarded in the industry.

In 2019 we welcomed a number of qualified industry and functional professionals at ams who supported the expansion of our business in different areas. Strengthening our skills and expertise on a global basis remains a key objective for ams as we implement our strategy for profitable growth. The expected combination of ams and OSRAM will allow us to build on the combined competencies of both companies' staff to create an even stronger employee base globally. At our manufacturing locations in Singapore, Austria, and the Philippines we continue to be a major employer of skilled labor.

We look forward to coming together with OSRAM as a combined company. For this, we plan to focus on leveraging the shared elements of the two companies' cultures to build a common understanding of where we want to go. Our aim is to harness the energy and commitment by which both companies' employees are driving ams and OSRAM forward today. On this basis we want to create a platform to nurture an evolved combined culture as we go through the planned integration process.



Manufacturing

We implement a hybrid manufacturing concept where we combine internal production capacity with strong external manufacturing partnerships to create flexibility and competitive advantages.

We operate production sites in Austria, mainly for front-end CMOS wafer manufacturing, in the Philippines for testing and related production steps, and in Singapore for optical manufacturing and packaging back-end. The Singapore locations we added in 2016 following the acquisition of Singapore-based Heptagon and then implemented very substantial expansion investments to support our growth. Last year we completed an investment into a high volume production line for advanced VCSEL light source in Singapore. This internal production capacity allows us to exploit differentiation opportunities in high power VCSELs through both design and manufacturing. The mass production ramp-up of the facility, which is fully automotive qualified, started at the end of last year and is expected to continue through 2020.

Across these sites, our approach to in-house manufacturing is defined by a focus on areas where our production processes and technologies create high levels of differentiation. The successful development of our business underlines the advantages of this hybrid model based on outsourced and internal supply chains in front-end CMOS wafer manufacturing, optical manufacturing and packaging, and VCSEL manufacturing.

We completed a major two-year investment cycle at the end of 2018 which was particularly geared towards our Singapore manufacturing. As planned, we then recorded significantly lower investments last year that strengthened specific aspects of manufacturing. Based on our strategic positioning we expect to continue focused manufacturing investments going forward.

The expected combination of ams and OSRAM will add manufacturing expertise and capacities in important areas of technology. On this basis, we expect to enhance our global manufacturing footprint with scale and cost advantages through the anticipated integration of ams and OSRAM.

Corporate Responsibility

ams conducts its business following high standards for professional practices, ethical behavior and environmental responsibility worldwide. Our business activities are governed by our company code of conduct as the mandatory charter for all our business functions. The code of conduct which is published on our website is a binding set of principles and procedures for all ams staff that ensures consistent, responsible, and accountable business practices. We actively monitor compliance with the code of conduct while providing secure feedback channels for employees on a global basis. We are also actively working with suppliers and supply chain partners to comply with the provisions of our code of conduct.

We have been a signatory to the United Nations Global Compact for over 10 years, the world's largest corporate strategic policy initiative for responsible business conduct and sustainability. The United Nations Global Compact is committed to human rights, labor standards, environmental protection, and anti-corruption measures, and comprises 10,409 members in 173 countries. Adhering to the Global Compact includes safeguarding labor standards such as the freedom of association, the prohibition of forced and child labor, and the avoidance of unsafe work practices. As part of our commitment we strive to improve our performance as Global Compact signatory on a continuous basis.

Protecting the environment and the sustainability of resources while being successful as a business is an important element of our commitment to corporate responsibility. We pursue the goal to lower our global carbon emissions footprint relative to the size of our business and continue to promote technologies that allow us to reduce our consumption of electricity and natural gas. To this end, our manufacturing locations in Austria and the Philippines have been certified according to the Environmental Management System DIN EN ISO 14001 for a number of years.

Underlining our commitment, we successfully received ISO 14001 Environmental Management System certification for all three production locations in Singapore in 2019. This reflects a remarkable accomplishment given the scale of the manufacturing facilities and the relatively short time frame. We manage, track and review environmental protection measures and activities for the whole group within the established ISO 14001 framework. Last year we implemented various measures which enabled a total reduction of 1.2 GWh of electrical energy used at our headquarters in Austria. These impressive energy savings resulted from upgrading air handling units, fans and free-cooling ventilation systems to state-of-the-art technology, reducing non-contaminated exhaust volumes and upgrading lighting to LED-based systems.

As a group, we make detailed information about our emissions footprint available on a yearly basis via the Carbon Disclosure Project (CDP). The Carbon Disclosure Project with more than 6,800 participants is broadly recognized as the leading international program for corporate disclosure of environmental information to stakeholders. We have been contributing to CDP since 2009 creating a long-term track record of quality disclosure.

We are also committed to ensuring that our products comply with international regulations regarding managing hazardous substances. These programs encompass compliance with standards such as REACH, RoHS, ODS and California Proposition 65. We have additionally implemented a comprehensive initiative to manage conflict minerals compliance in our direct materials as well as our supply chain. Our product environmental program covers new product developments as well as existing products to ensure they adhere to these requirements through monitoring and validating our suppliers and subcontractors.

We believe we hold responsibility as a business to engage with a larger group of stakeholders transcending our business focus. Consequently, we have been supporting a variety of social initiatives and organizations at the community up to the international level for many years. This includes a multi-year cooperation comprising several activities with "SOS Children's Villages", a renowned charitable organization which supports children in need. A further example illustrating our wide-ranging approach is the sponsorship of the Austria team in the Homeless Football World Cup, an international initiative offering homeless persons the opportunity to engage in a sports competition with counterpart teams from other countries. We support young talents in our community where in return we ask them to participate in charitable or scientific events that involve ams or our employees. We also organize job application seminars and internships for persons that are experiencing difficulties in finding a job to help them re-enter the labor market. In addition, we strive to offer regular relevant volunteer opportunities for our staff at several ams locations.

For the expected combination of ams and OSRAM we plan to align the corporate responsibility initiatives of both companies in the anticipated integration process with a view to further promote corporate responsibility at the combined company.

Blue laser revolutionizes metal processing – by Osram

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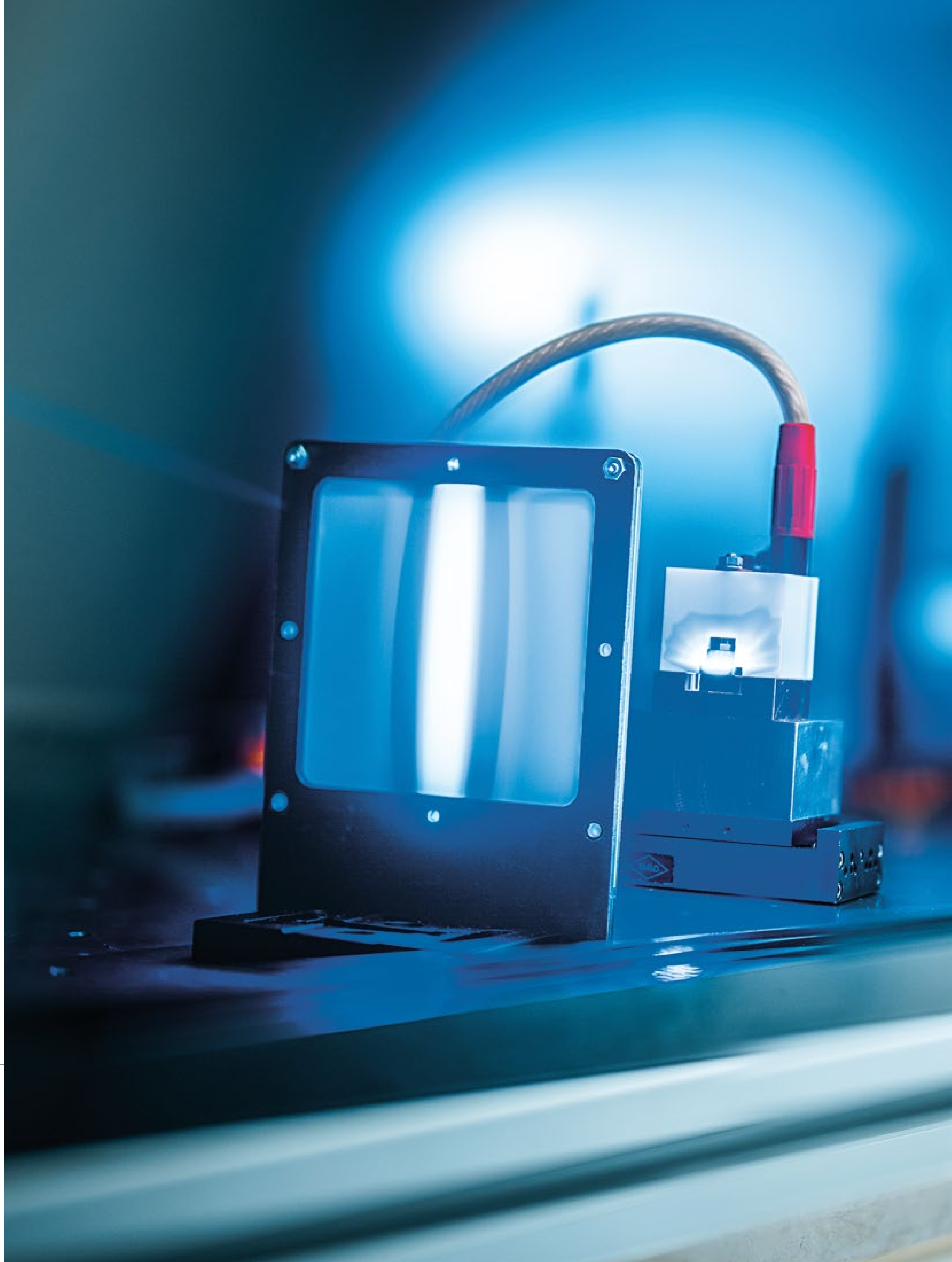

ams is a worldwide leader in sensor solutions

ams is a worldwide leader in sensor solutions focused on optical, image and audio sensing. Serving many of the world's leading companies, we power high performance applications in the mobile, consumer, automotive, industrial, and medical end markets.

Optical sensing

We hold a clear leadership position in optical sensing worldwide. We continue to strategically focus our business around optical sensing which already comprises the major share of our total business and is the most relevant driver of long-term growth for ams.

Within optical sensing, 3D sensing is a key market for ams, as three-dimensional data opens up significant new opportunities to capture and interpret the world around us. 3D sensing continues to establish pervasive new applications across end markets which help make our lives easier, safer and more comfortable. The range of use cases continues to expand in the consumer market where the technology was adopted first, while automotive and industrial/medical applications are emerging or heading towards first adoption. We are a leading supplier of 3D sensing with an unmatched portfolio of differentiated optical technologies, Vertical Cavity Surface Emitting Lasers (VCSEL), software, and extensive system know-how and capabilities. This allows us to offer solutions in all 3D approaches, structured light (SL), indirect and direct time-of-flight (iToF/dToF), and active stereo vision (ASV). Leveraging our portfolio, we pursue closely aligned roadmaps for 3D technologies to drive innovation and address evolving market needs.

We serve high volume consumer 3D sensing platforms at leading smartphone OEMs for both front-facing and world-facing applications where our high performance VCSEL illumination positions us strongly across architectures. World-facing iToF 3D systems have been more recently introduced in smart devices enabling camera enhancement features for better picture quality which are very successful with consumers. As the technology continues to be adopted, we supply different VCSEL illumination solutions into this recent growth market. We also view dToF technology as an important upcoming element of 3D sensing which offers performance advantages as applications continue to evolve. We are pursuing active developments in this attractive area based on our illumination and sensing portfolio.

Expanding the range of 3D sensing technologies, we played a key role in introducing ASV technology last year with a first smartphone implementation. ASV offers attractive advantages as it combines strong 3D performance, which includes security features supporting secure payment transactions, with reduced system complexity and lower total system cost. We continue to receive positive market feedback for ASV, which is highly suited for diverse 3D applications across end markets, and expect it to be a significant technology going forward. Accelerating our 3D solution capability, image sensor specialist SmartSens partnered with us last year for near-infrared (NIR) image sensing for 3D applications. Adding high quantum efficiency (QE) NIR image sensors with advanced optical performance enables us to create fully integrated ams 3D systems. We have already demonstrated our first full ASV solutions that combine ams illumination, NIR sensing, software and biometrics.

3D sensing is advancing beyond the consumer market with increasing momentum demonstrated by the strong industry efforts in automotive 3D sensing. Automotive LIDAR is now established as a core technology enabling higher level assisted driving, leading towards autonomous driving. A clear leader and early mover in LIDAR illumination, we have confirmed three major program wins for LIDAR 3D VCSEL illumination at different global Tier 1 suppliers. Our addressable high power VCSEL arrays offer clear advantages in different LIDAR architectures and the very significant life-time values of these design-wins underline the strength of our VCSEL and 3D expertise. In-cabin monitoring is evolving into another meaningful new optical application in automotive where use cases include driver alertness, driver recognition and monitoring of seating spaces. We are well positioned in this emerging area as confirmed by a first design-win for 3D ToF illumination at a tier 1 supplier and a miniaturized full ams 3D system solution using ASV and ams NIR sensing. As a further VCSEL-based application, automotive projected lighting is a growth area where we leverage our optics competencies in micro-lens projector systems for new comfort and safety lighting features such as welcome light carpets. Looking further, we are already addressing emerging applications in the industrial market. While 3D sensing is still at an early stage today, the large industrial automation market offers a wide range of opportunities for 3D systems.

High-efficiency green LED for personal health devices – by Osram

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MOVING FORWARD
Expected combination of ams and Osram

We are a leading provider of advanced light and proximity sensing for display management in mobile devices. As OEMs pursue the ongoing trend towards maximized screens and bezel-less smartphones, they are keen to remove front-side functions from the device screen. We have introduced a significant innovation which hides high performance proximity and light sensors invisibly behind an OLED display. Our unequaled behind OLED (BOLED) sensing analyzes the smallest amounts of light passing the display, allowing OEMs to advance large screen designs. Since their introduction last year, our BOLED solutions have seen strong market success with adoption continuing at major smartphone OEMs. Utilizing our BOLED expertise for innovation in 3D sensing, we have developed a breakthrough technology that enables OEMs to move front-facing 3D sensing for face recognition invisibly behind the display. This innovation will offer the high security and strong convenience of 3D face recognition without visible components on the device front, a very attractive proposition for consumer OEMs. Using ASV technology, we are quickly advancing the development of a full BOLED 3D system solution.

Our spectral sensing technology, based on our proprietary IP, allows us to develop strongly differentiated new applications. We have introduced an innovative solution for highly accurate automatic white balancing (WB) for smartphone cameras, which is already shipping into a first smartphone platform. Correct white balancing is a key parameter for picture quality and color expression in photography. We use a detailed spectral analysis of the light environment to achieve visibly higher picture quality and vivid natural colors. Other new optical sensing solutions we supply for smartphone cameras detect artificial light flicker and power precise autofocus via long-distance 1D ToF sensing.

In the promising area of optical biosensing, we address the trend to monitor personal health and bring diagnostics closer to the point-of-care. Our personal health solution measures blood pressure, an important health indicator, at up to medical grade accuracy together with heart rate, vein elasticity, vagal tone, and pulse transit time. These parameters help create a snapshot of personal health which also enables long-term monitoring. We are also driving major innovation in the development of a miniature spectral sensing device to analyze medical samples in any location. Eliminating the need for health workers to send body fluid samples to a lab, a complete spectral analysis system the size of a smartphone accessory will provide quality results rapidly and on the spot.

New LED solutions for automotive signalling – by Osram

ams + OSRAM
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Imaging

We hold a leading position in advanced image sensing for the medical and industrial markets based on our leadership in medical imaging and global shutter image sensor technology. At the same time, we are expanding our portfolio in near-infrared (NIR) image sensing for applications like 3D sensing. Building on a partnership with image sensor specialist SmartSens, we offer advanced NIR sensors with high quantum efficiency (QE) which delivers improved optical performance. In medical imaging, our sensor solutions for computer tomography, digital X-ray and mammography enable significant diagnostic advantages while minimizing radiation exposure for patients. As the leader in this market, we continue to expand our business in Asia with several regionally based OEMs. Recently, we introduced a highly innovative industry-first ASSP sensing solution for CT imaging for wider market use, where previously only fully customized solutions were available. Based on monolithic integration of sensing and analog-to-digital conversion, we offer OEMs high performance imaging at significantly lower system cost and complexity. At the same time, doctors and patients benefit from high resolution at low radiation doses. We also play a leading role in next generation medical endoscopy where our NanEye micro cameras offer high-quality imaging for medical endoscopes. As the world's smallest cameras for endoscopy, NanEye solutions bring better diagnostics and higher safety to doctors and patients.

Our industrial image sensing solutions focus on high-performance global shutter technology powering applications in advanced machine vision, inspection, traffic control and high-end imaging. As an industry leader, we drive innovation and are at the technology forefront of high resolution image capture at ultra-high frame rates. Leveraging our global shutter capabilities, we also advance into new markets such as 3D sensing for consumer and emerging 3D applications in household appliances and access. Our 3D expertise, together with the SmartSens partnership, enables us to develop full system solutions for new use cases.

Audio sensing

In audio sensing we concentrate on specialty solutions for consumer devices. Our active noise cancellation (ANC) technologies ensure excellent audio quality, suppressing unwanted ambient noise for audio devices such as earbuds, headphones and headsets. Offering analog, digital and hybrid ANC, we achieve very small form factors and very low power consumption for wireless and wired designs. On this basis, we have built a strong position in the growth market for true wireless stereo (TWS) earbuds. Driving innovation, we introduced a new ANC solution last year that enables highest quality noise cancellation for loose-fitting earbuds, the more convenient and comfortable choice for consumers. In addition, our augmented hearing technology allows important acoustic information to selectively by-pass noise cancellation.

For many years, we held the leading position in the high volume market for MEMS microphone interfaces. Late last year we divested these activities to our customer Knowles Corporation in line with our focus on new markets in optical sensing. We see the potential to pursue optical technologies as a novel approach for high quality micro-scale audio microphones.

Other product lines

Next to our focus areas in sensing, we continue to be successful in several other product lines on an opportunistic basis. Drawing on our power management know-how we supply an advanced power management component into a high-volume consumer application for device charging. We are also a leading supplier of contactless position sensing solutions, which are immune to stray field interference, for the industrial and automotive markets. Applications encompass high resolution industrial sensing and measurement and a range of automotive uses in the powertrain, chassis control and in-cabin sub-segments.

Our Global Network

Europe

Austria
Headquarters

Belgium

France

Germany
2 locations

Italy

Netherlands

Portugal

Spain

Switzerland
3 locations

United Kingdom

Asia

PR China
4 locations

India

Japan

Philippines

Singapore
3 locations

South Korea

Taiwan

North America

USA
3 locations

Tailored LED technology to optimize growth – by Osram

ams+OSRAM
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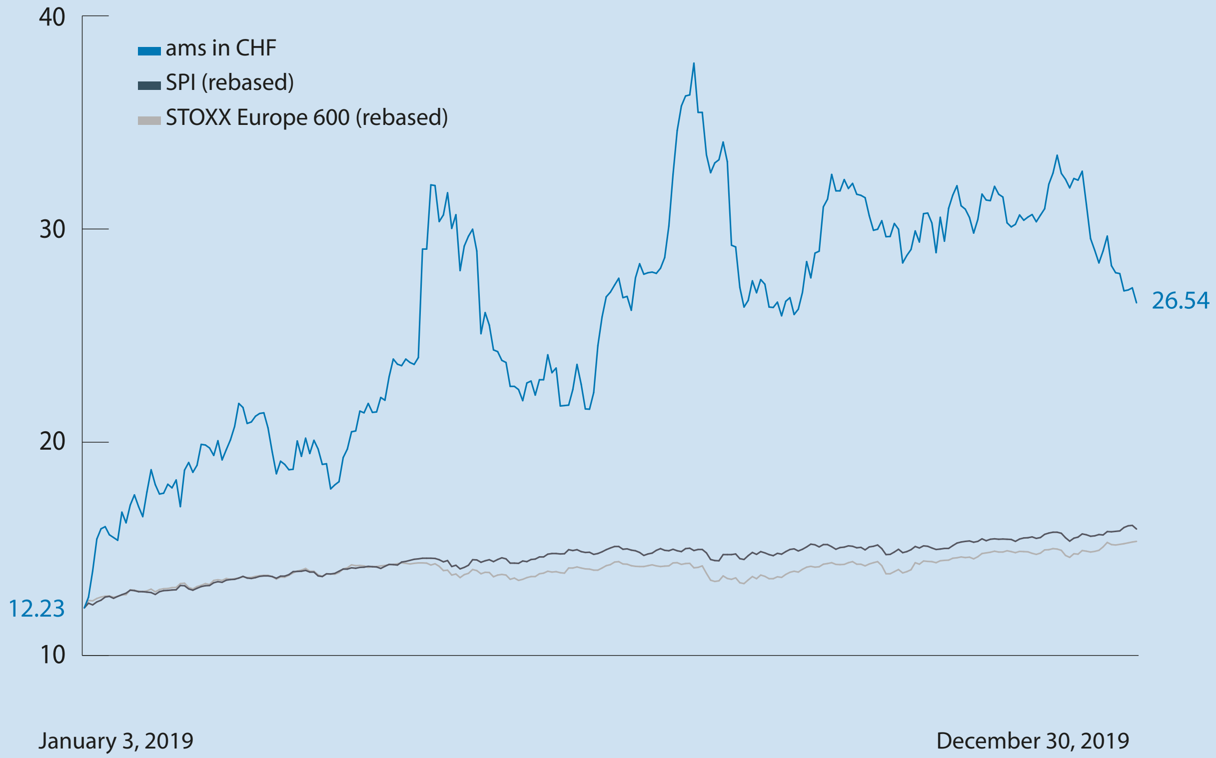
INVESTOR RELATIONS AND EXECUTIVE BODIES

ams share price development[1)]



[1)] Historic data adjusted for recent capital increase

Investor Relations

The ams share recorded a very strong full year price performance in 2019 which reflected ams' market success and its successful sensor solutions strategy creating growth opportunities for the future including the expected acquisition of OSRAM Licht AG (OSRAM). On this basis, the ams share continues to offer significant potential for future value appreciation.

Following a very positive start in the first quarter of the year the ams share price saw a further substantial increase in the second quarter driven by short-term momentum. After a downward reaction towards mid-year ams' business performed very well in the third quarter and second half, particularly given high demand for consumer solutions. This drove associated further strength in the share price without major impact from ams preparing for and moving through the first and then second tender offer for OSRAM. Different market views on the OSRAM acquisition following the successful tender offer then influenced the share price towards year-end, together with first effects of the Covid19 outbreak. Clearly reflecting ams' strong success in 2019 including the OSRAM tender offer, the ams share ended the year an outstanding 117% higher compared to the beginning of the year.

In 2019, ams decided to suspend its cash dividend policy for fiscal year 2018 to focus on strengthening its business reflecting a more volatile end market and macro-economic situation. In order to support the expected acquisition of OSRAM ams has also decided to suspend its cash dividend policy for fiscal year 2019. ams has completed its recent share buyback program in March 2019 under which the company bought back a total of 6,753,586 shares, equivalent to 8.0% of total issued shares at year-end 2019. In 2019 ams bought back 1,308,471 shares, equivalent to 1.55% of total issued shares. ams resumed its share buyback scheme in April 2020 after having placed all of its treasury shares with institutional investors in February 2020 in view of the upcoming rights issue given that treasury shares do not receive subscription rights under Austrian law. ams plans to use a major portion of treasury shares resulting from its buyback activities to cover employee long-term incentive plans.

At the Annual General Meeting in June 2019, all agenda items subject to a vote were approved with an overwhelming majority.

ams continued its broad investor relations activities in 2019 which were mainly built around its quarterly reports and regular presentations to research analysts, press, and institutional investors. ams held extensive road shows in Europe, North America and Asia/Pacific through the year, including activities related to the successful public tender offer for OSRAM. In addition, ams attended a number of international investor conferences offering access to existing shareholders and potential new investors. As ams' business presence in the Asia/Pacific region continues to expand Asia/Pacific as well as U.S. investors showed further strong interest in ams last year. Consequently, the North America and Asia/Pacific regions were again a focus of ams' investor relations activities. Given ams' strong growth to a USD 2 billion revenue company last year, this helped increase the visibility of the ams share on a global scale.

The "Investor" section of the company website www.ams.com offers a comprehensive range of financial reports, press releases, presentations, audio releases, general meeting information and additional data on the ams share.

ISIN: AT0000A18XM4
Securities code: 24924656
Ticker symbol (SIX Swiss Exchange): AMS
Reuters / Bloomberg: AMS.S / AMS SW

Executive Bodies

Management Board

Alexander Everke (CEO)
Michael Wachsler-Markowitsch (CFO)
Dr. Thomas Stockmeier (COO)
Mark Hamersma (CBO)

Supervisory Board

Guido Klestil (Honorary Chairperson)

Hans Jörg Kaltenbrunner (Chairperson)
Michael Grimm (Deputy Chairperson)
Loh Kin Wah
Tan Yen Yen
Prof. Dr. Monika Henzinger
Jacob Jacobsson (until June 5, 2019)
Brian Krzanich (from June 5, 2019)
Johann Eitner (employee representative)
Andreas Pein (employee representative)
Bianca Stotz (employee representative)

CORPORATE GOVERNANCE

As an Austrian company listed in Switzerland, ams AG ("ams") is subject to the compulsory regulations of the SIX Swiss Exchange's directive concerning information on corporate governance ("Swiss Corporate Governance Directive"). The Swiss Corporate Governance Directive is available at https://www.six-exchange-regulation.com/dam/downloads/regulation/admission-manual/directives/06_16-DCG_en.pdf. This chapter also contains the Corporate Governance report information according to the stipulations of Austrian law as far as applicable to ams.

In this context, ams points out that Austrian Corporate Law differs from the Swiss model in terms of the structure of its corporate bodies, their duties and their accountability. Hereinafter, the Austrian terms for the corporate bodies will be used. Corporations that are not constituted according to the Swiss Code of Obligations are required correspondingly to meet the regulations of the Swiss Corporate Governance Directive, which is formulated in close correspondence with the Swiss Code of Obligations. Consequently there follows a brief description of the particular features of the Austrian organizational structure:

– The Management Board is responsible for company management and representation of the company; it holds the monopoly on company management and representation. It is not subject to instructions by the shareholders or the Supervisory Board, acting rather on its own responsibility and without instructions. Where the Swiss Corporate Governance Directive calls for information on the Executive Board, corresponding details on the Management Board are provided. Nevertheless, the function of the Management Board does not correspond exactly with that of the Swiss Executive Board.

– The Supervisory Board is in charge of appointing and dismissing the Management Board and, in particular, supervising it. Furthermore, specific legal transactions also require the Supervisory Board's approval. Where the Swiss Corporate Governance Directive calls for information on the Administrative Board corresponding details on the Supervisory Board are provided. Nevertheless, the function of the Supervisory Board does not correspond exactly with that of the Swiss Administrative Board.

– The Annual General Meeting, functioning as the supreme means of decision-making body for a company, is responsible for appointing and dismissing the members of the Supervisory Board and the appointment of the auditor. Where the Swiss Corporate Governance Directive calls for information on the General Meeting corresponding details on the Annual General Meeting are provided. The Swiss and Austrian legal systems differ with regard to these two institutions.

1. Corporate Structure and Shareholders

1.1 Corporate Structure

ams, with headquarters in Premstaetten, Austria, has been officially listed on the main segment of the SIX Swiss Exchange since May 17, 2004 (securities number 24924656, ISIN AT0000A18XM4). On the reporting date, the company had a market capitalization of approximately CHF 3.2 billion. ams' business activity is divided into the business segments Consumer, Non-Consumer and Foundry. The Segment "Consumer" is comprised of products and sensor solutions targeting the mobile, consumer and communications markets. The segment "Non-Consumer" is comprised of products and sensor solutions targeting the industrial, medical, and automotive markets. In the "Foundry" segment, ams reports the contract manufacturing of analog/mixed signal ICs based on its customers' designs. The company manages its business via a Management Team, which includes managers responsible for managing the business areas within the framework of the strategy defined by the Management Board. These managers report directly to the Management Board of ams. Further information on the business segments is provided in the Notes to the Consolidated Financial Statements under item 2 (page 90 of this report).

The company has active unlisted subsidiaries; there are no listed subsidiaries. The following table lists the company's direct active subsidiaries:

Company	Head office	Equity in EUR	Percentage of shares held
ams France S.à.r.l.	Vincennes	-13,761	100 %
ams International AG	Rapperswil	134,345,302	100 %
ams Italy S.r.l.	Milan	1,535,785	100 %
ams R&D UK Ltd.	Launceston	399,061	100 %
ams Sensors Germany GmbH	Jena	7,998,597	100 %
ams Sensors Asia Pte. Ltd.	Singapore	25,386,419	100 %
ams Japan Co. Ltd.	Tokyo	694,052	100 %
ams Asia Inc.	Calamba City	26,841,841	100 %
ams Semiconductors India Private Ltd.	Hyderabad	487,704	100 %
ams R&D Spain S.L.	Valencia	816,542	100 %
Aspern Investment Inc.	County of Kent	4,270,825	100 %
AppliedSensor Sweden AB	Linkoeping	24,329	100 %
CMOSIS International BV	Berchem	74,490,723	100 %
Heptagon Advanced Micro-Optics Pte. Ltd.	Singapore	464,672,941	100 %
Opal Bidco GmbH	Frankfurt	25,912	100 %
ams Offer GmbH	Ismaning	20,739	100 %
ams Sensors Taiwan Pte. Ltd.	Taiwan	536,706	100 %

1.2 Significant Shareholders
Since January 1, 2016 ams is subject to article 120 of the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA) and the Ordinance of the Swiss Financial Market Supervisory Authority on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (FMIO-FINMA). Pursuant thereto, ownership interests in companies with registered office outside of Switzerland whose equity securities are mainly listed in whole or in part in Switzerland must be notified both to the issuer company and to SIX Swiss Exchange when the holder's voting rights reach, increase above or fall below certain thresholds. These notification thresholds are 3%, 5%, 10%, 15%, 20%, 25%, 33 1⁄3%, 50% and 66 2⁄3% of voting rights.
On the reporting date, the following ownership interests had been notified to ams:

Temasek Holdings Private Limited	5.40%
BlackRock, Inc.	4.97%
Schroders plc	3.18%

Information on significant shareholders or groups of shareholders filed with ams and the Disclosure Office of SIX Swiss Exchange in accordance with article 120 FMIA can also be viewed on the Disclosure Office's publication platform at https://www.six-exchange-regulation.com/en/home/publications/significant-shareholders.html

1.3 Cross Shareholding
No cross shareholdings exist at this time.

2. Capital Structure

2.1 Capital
As of December 31, 2019, ams' ordinary capital amounted to nominally EUR 84,419,826.00, divided up into 84,419,826 no-par-value shares with a calculated nominal value of EUR 1.00 per share (Articles of Association are available at https://ams.com/corporate-governance).

2.2 Authorized and Conditional Capital in Particular
(the figures shown below reflect the situation at the time of authorization)
(Articles of Association are available at https://ams.com/corporate-governance)

Authorized Capital
In June 2018 the Management Board was authorized by the Annual General Meeting to increase – if required in several tranches - the share capital by up to EUR 8,441,982.00 by issuing up to 8,441,982 new shares with a nominal value of EUR 1.00 per share (no-par value shares) against cash and/or contribution in kind and to determine, in agreement with the Supervisory Board, the terms of issue and further details of the implementation of the capital increase (Authorized Capital 2018).

Conditional Capital
The Management Board was authorized in June 2015 to conditionally increase the share capital pursuant to § 159 paragraph 2 sub-par 3 Austrian Stock Corporation Act (AktG) in a manner that the share capital is increased up to EUR 5,000,000 by issuance of up to 5,000,000 no-par bearer shares (no-par value shares) for the purpose of granting stock options to employees, officers and directors of the Company and any company affiliated within the scope of the Performance Stock Unit Plan (PSP) 2014-2029. The issue price is calculated based on the stock exchange price before granting of the respective stock options, whereupon the issue price in any case is at least the amount of the share capital attributable to each no-par share. The Supervisory Board is authorized to decide changes in the Articles of Association resulting from the conditional capital increase. The other terms of issue are based on the provisions of the Long Term Incentive Plan (LTIP 2014) approved by the Management Board on October 17, 2014 which is the alternative name adopted for the PSP 2014-2029. Each option under the plan granted entitles each participant to purchase one share of the Company. The available options were to be granted during the year 2014 for the first time after prior resolution by the LTIP committee. All options granted must be exercised ten years after granting date at the latest. The exercise price for the new shares is EUR 1.00. Issuance of the options is subject to the following criteria: a) approval of the plan by the annual general meeting – this was fulfilled by the authorization in June 2015 described above – ; b) exercisability of 50% of the options depends on an increase of earnings per share measured over a period of three years compared to the earnings per share of the year prior to the respective grant; c) exercisability of the remaining 50% of the options depends on the comparison of total shareholder return over a period of three years to a defined benchmark group of semiconductor companies. The earliest date for exercise of options is three years after grant and the LTIP committee's decision about fulfilment of the above criteria. Additional information on the plan is available on page 95 of this report.

The Management Board was authorized in June 2017 to conditionally increase the share capital pursuant to § 159 paragraph 2 sub-par 1 Austrian Stock Corporation Act (AktG) in a manner that the share capital is increased by up to EUR 8,441,982 by issuance of up to 8,441,982 no-par bearer shares with a nominal value of EUR 1.00 per share (no-par value shares) for the purpose of the issuance of financial instruments pursuant to § 174 Austrian Stock Corporation Act (AktG) (Conditional Capital 2017). In September 2017, the Management Board decided to place a convertible bond committing a portion of the Conditional Capital 2017 of 3,273,858 new ordinary no-par bearer shares (no-par value shares) as underlying for the possible conversion of the convertible bond. In February 2018, the Management Board decided to place another convertible bond committing a further portion of the Conditional Capital 2017 of 4,410,412 new ordinary no-par bearer shares (no-par value shares) as underlying for the possible conversion of the convertible bond. Consequently, 7,684,270 shares of the Conditional Capital 2017 have been committed.

2.3 Changes in Capital
In total, the ams Group's shareholders' equity amounted to EUR 828.63 million as of December 31, 2017, EUR 1,293.75 million as of December 31, 2018 and EUR 1,689.67 million as of December 31, 2019. Information about the changes in shareholders' equity over the last two reporting years is provided in the section entitled "Consolidated Statement of Changes in Shareholders' Equity according to IFRS from January 1, 2019 until December 31, 2019" in the financial section of this Annual Report (page 74).

2.4 Shares and Participation Certificates
On the date of reporting, ams' share capital consisted of 84,419,826 common no-par-value shares issued to bearer with a calculated nominal value of EUR 1.00 per share. Every bearer of a common share has the right to vote and is entitled to receive dividends; there are no preferential rights. All shares are equal in terms of the company's residual assets; all capital was paid in. There are no participation certificates.

2.5 Profit Sharing Certificates
There are no profit sharing certificates.

2.6 Restrictions on Transferability and Nominee Registration
The company only has bearer shares outstanding. There are no restrictions on transferability or corporate rules on nominee registration.

2.7 Convertible Bonds and Option Plan
In September 2017, the Management Board passed a resolution to place a convertible bond. Consequently, the company issued a convertible bond in an aggregate nominal amount of USD 350 million with a 5-year maturity and a conversion premium of 50%, resulting in a conversion price of USD 106.91 per share. The convertible bond has 3,273,858 new ordinary no-par bearer shares (no-par value shares) underlying for the possible conversion. These new ordinary no-par bearer shares are part of the Conditional Capital 2017, which was authorized in the Annual General Meeting in June 2017.

In February 2018, the Management Board passed a resolution to place another convertible bond. Consequently, the company issued a convertible bond in an aggregate nominal amount of EUR 600 million with a 7-year maturity and a conversion premium of 45%, resulting in a conversion price of EUR 136.04 per share. The convertible bond has 4,410,412 new ordinary no-par bearer shares (no-par value shares) underlying for the possible conversion. These new ordinary no-par bearer shares are part of the Conditional Capital 2017 which was authorized in the Annual General Meeting in June 2017.

In connection with the acquisition of TAOS Inc., the company committed to grant options to certain employees of TAOS Inc. by issuing a Stock Option Plan, which – as far as legally possible - matches the number of options and the option plan which has been granted to those employees under the TAOS Inc. - „Equity Incentive Plan 2000". To fulfill this obligation, the management board of ams adopted a new Stock Option Plan 2011 (SOP 2011), which the company's Supervisory Board approved on July 9, 2011. The SOP 2011 comprises unvested options and vested options. Each option granted entitles each employee to purchase one share of the company. For holders of unvested options the exercise price equals the original exercise price under the TAOS Inc. plan. This price is in the range of USD 0.19 and USD 3.96. Certain employees of TAOS Inc., who held a small number of TAOS Inc. shares („Small Shareholders"), were granted exercisable options for shares of the Company as compensation for shares of TAOS Inc. held by them prior to the transaction (vested options). The option exercise price for these options is CHF 8.27 which is the average of the market price of the shares of the company on the SIX Swiss Exchange within 30 days following the date of grant of options. The term of the unvested options will remain unchanged compared to the original TAOS Inc. plan. The options will expire between September 3, 2017 and June 8, 2021. The options of the Small Shareholders expire ten years after the date of issuance, therefore on July 12, 2021. In total, 1,130,720 options were distributed from SOP 2011.

The Supervisory and Management Boards decided to adopt a new Stock Option Plan (SOP 2013) on August 28, 2013. The SOP 2013 comprises a maximum of 2,000,000 options, of which (i) up to 1,575,000 options may be granted to employees and executive employees and (ii) up to 235,000 options may be granted to the Chairman of the Management Board / Chief Executive Officer and up to 190,000 options may be granted to the Chief Financial Officer. This corresponds to 2.8% of the nominal capital of the Company at that time. Each option entitles the relevant employee, executive employee and/or managing director (collectively "Participants") to acquire one no-par value ordinary share of ams. The available options were to be granted during the year 2013 after prior resolution by the SOP committee. All options granted must be exercised by June 30, 2021.The exercise price for the new shares corresponds to the average strike price within the last three months before the granting of the stock options. For 50% of the granted options,

options can be exercised to the extent of 33% of the grant on the first, second and third anniversary of the options grant date at the earliest. For the other 50% of the granted options, the earliest date for exercising is the third anniversary of the options grant date depending on the achievement of the following criteria: (i) The benchmark growth of the market (sales growth of the analog semiconductor market as published by WSTS) has to be surpassed in the period 2013-2015 with stable gross margins (not to be lower than in 2012; adjusted for extraordinary impacts related to a positive long-term development of the business such as e.g. acquisition costs or financing costs). If this does not apply to the whole period but only to single calendar years, a quota of one third of the exercisability for the relevant year has to be taken into account. (ii) Over the period 2013-2015 an increase of earnings per share has to be achieved. If this does not apply to the whole period but only to single calendar years (provided that earnings per share are not lower than in 2012), a quota of one third of the exercisability for the relevant year has to be taken into account. In total, 1,571,005 options were distributed from SOP 2013.

The Supervisory and Management Boards decided to adopt a Long Term Incentive Plan (LTIP 2014) on October 17, 2014. The LTIP 2014 comprises a maximum of 5,124,940 options which corresponded to approximately 7% of the share capital of the Company at the time. Each option granted entitles each participant to purchase one share of the Company. The available options were to be granted during the year 2014 for the first time after prior resolution by the LTIP committee. All options granted must be exercised ten years after granting date at the latest and the exercise price for the new shares is EUR 1.00. Issuance of the options is subject to the following criteria: a) approval of the plan by the annual general meeting; b) exercisability of 50% of the options depends on an increase of earnings per share measured over a period of three years compared to the earnings per share of the year prior to the respective grant; c) exercisability of the remaining 50% of the options depends on the comparison of total shareholder return over a period of three years to a defined benchmark group of semiconductor companies. The earliest date for exercise of options is three years after grant and the LTIP committee's decision about fulfilment of the above criteria. In 2019 no options from LTIP 2014 were granted to employees and management of the Company since the plan has ended in 2018 (2018: 470,990 options). In total, 2,906,270 options have been distributed from LTIP 2014.

On June 9, 2017, the Supervisory and Management Boards adopted a Special Stock Option Plan (SSOP 2017). The SSOP 2017 comprises a maximum of 2,400,000 options which corresponded to approximately 3% of the share capital of the Company at the time. Each option granted entitles each participant to purchase one share of the Company for an exercise price of EUR 27.56. The available options were granted once in 2017 after prior resolution by the LTIP committee. All granted options must be exercised by June 30, 2027. In each case, 17% of the associated options can be exercised one, two, three, four and five years after grant. The remaining 15% of the options may be exercised six years after grant. In total, 2,362,000 stock options were granted from SSOP 2017.

The Supervisory Board and the Management Board adopted a Special Long Term Incentive Plan (SLTIP 2018) during the financial year 2018, which became effective on October 11, 2018. The SLTIP comprises a maximum of 350,000 options. This corresponds to approximately 0.5% of the share capital of Company at the time. Each option granted entitles each participant to purchase one share of the Company for an exercise price of EUR 43.41. The available options have been granted once in 2018 after prior resolution by the LTIP committee. All granted options must be exercised by October 11, 2028. One-third of the options can be exercised after one, two and three years after the grant. During the financial year 2019 no options were granted from SLTIP 2018 (2018: 321,730 options). In total, 321,730 stock options were granted from SLTIP 2018.

In 2019 the Supervisory Board and the Management Board adopted a Special Stock Option Plan (SSOP 2019), which became effective on February 5, 2019. The SSOP 2019 serves as a replacement for the expired options under LTIP 2014 from the grant in fiscal year 2016. The SSOP 2019 comprises a maximum of 660,510 options. This corresponds to 0.78% of the Company's share capital at the time. Each option granted entitles each participant to purchase one share of the Company for an exercise price of EUR 20.63. The available options have been granted once in 2019 following a resolution of the LTIP Committee. All options granted must be exercised by February 5, 2029. During the financial year 2019 660,510 stock options were granted from SSOP 2019 (2018: 0). In total, 660,510 stock options were granted from SSOP 2019.

On June 30, 2019, the Supervisory Board and the Management Board adopted a new Long Term Incentive Plan (LTIP 2019) to replace LTIP 2014, which became effective on September 9, 2019. The LTIP 2019 grant comprises a maximum of 1,266,297 options in the fiscal year 2019, this corresponds to 1.5% of the Company's share capital. Overall, the LTIP 2019 plan comprises of approximately 7.5% of the Company's share capital over the course of 5 years (2019-2023). LTIP 2019 includes three different types of options: PSU (Performance Stock Unit), RSU (Restricted Stock Units) and SPSU (Special Performance Stock Units). The vesting of PSUs depends on the development of the share price of ams AG compared to a defined peer group of semiconductor companies as well as the achievement of the earning per share targets. PSUs will become exercisable 3 years after grant date. The RSUs and SPSUs can be exercised within 4 years after grant date. Each year one quarter of the total tranche of RSUs and SPSUs become exercisable. Each granted PSU and RSU entitles the participants to purchase one share of the Company for an exercise price of EUR 1.00. Each granted SPSU entitles the participants to purchase one share of the Company for EUR 33.57. All granted options must be exercised by June 30, 2029. In total, 1,266,297 stock options were granted from LTIP 2019.

3. Supervisory Board

On the reporting date, the company's Supervisory Board was composed of nine members, of whom three were employee representatives. The members were not employed as members of the company's or a subsidiary's management board over the last four years and are therefore non-executive. The company's Articles of Association are available at https://ams.com/corporate-governance.

3.1 / 3.2 / 3.3 / 3.4 Members of the Supervisory Board, Other Activities, Vested Interests, Cross-Involvement, Election and Terms of Office
Insofar as nothing to the contrary is mentioned below, no material activities, vested interests or cross-involvements exist regarding the members of the Supervisory Board. Under the Corporate Governance Directive and the relevant comment by SIX Swiss Exchange, activities and vested interests are only indicated in listed Swiss and foreign organizations or ones that operate in the same or a related industry sector as the company. The information below shows committee memberships as of the reporting date, as well as former members, which were part of the Supervisory Board during the year under review.
The Supervisory Board members have been classified as independent or non-independent members according to the article 14 of the Swiss Code of Best Practice for Corporate Governance.

Hans Jörg Kaltenbrunner (Chairman), born in 1957, Austrian citizen, independent member. Member of the Supervisory Board since 2009, Chairman since 2013. Re-elected in 2018, current term of office until 2022. Having studied at the Vienna University of Business and Economics, Hans Jörg Kaltenbrunner began his professional career at the Austrian Trade Delegation in Taipei, Taiwan as Deputy Trade Delegate in 1982. From 1985-1994, he assumed management positions at the Hong Kong branch and in the asset management group of Creditanstalt-Bankverein. Following appointments to the management boards of RHI AG and Austria Mikro Systeme AG (ams AG), he has been a partner of Andlinger & Company since 2002 and has served as a member of management and supervisory boards of international industrial companies in this capacity.

Michael Grimm (Vice Chairman), born in 1960, German citizen, non-independent member. Member of the Supervisory Board since 2009. Re-elected in 2018, current term of office until 2022. Michael Grimm studied Management at the University of Frankfurt and worked as a tax consultant and auditor at Arthur Andersen Wirtschaftsprüfungsgesellschaft, lately as partner and head of the Leipzig office. From 1997 until 2001 he was at Hoechst AG with responsibility for group accounts and was involved in the transformation of Hoechst AG into Aventis. From 2002 until 2005 Michael Grimm was director of finance, accounting and investments at Grohe Water Technology AG & Co. KG, then Managing Director of Triton Beteiligungsberatung GmbH, an investment company with holdings in medium-sized companies in Germany and Sweden. Since 2008 he has been Commercial Director of Dr. Johannes Heidenhain GmbH. Since January 2019, Michael Grimm is a member of the Management Board of Diadur SE, member of the Supervisory Board of Dr. Johannes Heidenhain GmbH and Deputy Chairman of the Supervisory Board of MD Elektronik GmbH. Since Dr. Johannes Heidenhain GmbH is a long-term customer and shareholder of ams AG, Michael Grimm is classified as a non-independent member according to Swiss Code of Best Practice for Corporate Governance.

Brian Matthew Krzanich, born in 1960, U.S. citizen, independent member. Member of the Supervisory Board since June 5, 2019, current term of office until 2022. Brian Matthew Krzanich joined Intel in 1982 as an engineer and held different management positions in numerous departments, such as SVP and GM of Manufacturing and Supply Chain and EVP & COO (Chief Operating Officer) responsible for global manufacturing, supply chain, human resources and information technology. In 2013 Brian Krzanich was appointed as the CEO of Intel. He led Intel's corporate strategy and operations, including development of Intel's business model and identifying emerging technologies. While serving in this role, Mr. Krzanich was credited for diversifying Intel's product offerings and workforce. Brian Krzanich is currently President and CEO of CDK Global, a leading supplier of integrated software along with digital marketing and advertising solutions to the retail automotive industry worldwide. He has served the Boards of Deere & Company and the Semiconductor Industry Association. Brian Krzanich holds a bachelor's degree in chemistry from San Jose State University.

Loh Kin Wah, born in 1954, Malaysian citizen, independent member. Member of the Supervisory Board since 2016. Re-elected 2019, current term of office until 2022. Kin Wah Loh has over 40 years of management experience in world leading semiconductor enterprises. He was formerly Executive Vice President, Global Sales and Marketing of NXP Semiconductors, President and Chief Executive Officer of Qimonda AG, and Executive Vice President, Communication Group of Infineon Technologies AG. He is currently Chairman of Synesys Technologies Pte Ltd and Independent Director of AEM Holdings Ltd. Kin Wah Loh holds an Honors degree in Chemical Engineering from the University of Malaya, Kuala Lumpur, and a postgraduate certified diploma in accounting and finance from ACCA (UK).

Tan Yen Yen, born in 1965, Singapore citizen, independent member. Member of the Supervisory Board since 2018, current term of office until 2022. Yen Yen Tan held several different senior level positions in the technology and telecom sector, such as, President, Asia Pacific for Vodafone Global Enterprise, Senior Vice President of Applications for Oracle Asia Pacific, Vice President and Managing Director for Hewlett-Packard Singapore (HP) and Regional Vice President and Managing Director of Asia Pacific (South) for SAS Institute. In addition she served as the Chairman of the Singapore Infocomm Technology Federation, was Director of Infocomm Development Authority (IDA) of Singapore and Director of Defence Science and Technology Agency. Yen Yen Tan's current non executive board roles include Director of Singapore Press Holdings, Director of OCBC Bank and Chairman of Singapore Science Centre. She has a degree in Computer Science from National University of Singapore and an Executive MBA degree with Helsinki School of Economics Executive Education.

Prof. Dr. Monika Henzinger, born in 1966, German citizen, independent member. Member of the Supervisory Board since 2018, current term of office until 2022. Monika Henzinger received her PhD from Princeton University and was working as a Director of Research for Google. From 2005 until 2009, she was a professor at the School of Computer & Communication Sciences of EPFL (École polytechnique fédérale de Lausanne), heading the Laboratory of Theory and Applications of Algorithms. In 2013 she was awarded a Dr. h. c. degree from the Technical University of Dortmund, Germany. She has published over 150 scientific articles, is the co-inventor of over 80 patents, is a fellow of the ACM as well as the EATCS and is a member of the Austrian Academy of Science. Currently Monika Henzinger is a Professor at the University of Vienna, Austria, heading the research group of "Theory and Applications of Algorithms".

Jacob Jacobsson, born in 1953, Swedish and U.S. citizen. Member of the Supervisory Board from 2011, until June 5, 2019. Jacob Jacobsson has held CEO positions at Blaze DFM, Inc., Forte Design Systems and SCS Corporation, and executive positions at Xilinx Inc., Cadence Design Systems, and Daisy Systems. He has served on the board of directors at Actel Corp., and currently serves on the boards of a number of privately-held companies in the United States and Europe. He was a member of the board of directors for TAOS Inc. since 2003. Prior to his management career, Jacob Jacobsson was active in the fields of IC design and automated design of semiconductor chips. He holds M.S. degrees in Computer Science and Electrical Engineering from the Royal Institute of Technology (KTH, Stockholm) and a B.A. degree from the University of Stockholm.

Johann C. Eitner (Employee Representative), born in 1957, Austrian citizen. Member of the Supervisory Board since 1994. Re-elected in 2018, current term of office until 2023. Chairman of the Workers' Council and Employee Representative on the Supervisory Board since 1994. During his more than 35-year career, Johann Eitner has been employed as an electrician in various positions and, since 1984, as supervisor in the mask lithography department at ams. He was trained as an electrician.

Andreas Pein (Employee Representative), born in 1964, Austrian citizen. Member of the Supervisory Board since February 2016, current term of office until 2023. Member of the Employee Council since 1998 and Chairman of the Employee Council from February 2016 to August

2016. Andreas Pein joined the company in 1986 as a data preparation technician in the mask lithography department. In 2002, he moved to the IT department where he worked as an automation engineer. Since 2018 he has been working full-time as the deputy chairman of the Employees' Works Council.

Bianca Stotz (Employee Representative), born in 1988, Austrian citizen. Member of the Supervisory Board since October 2017, current term of office until 2023. She joined the company in 2003 and has been a member of the Employee Council since 2005. After completing her education as an electronic technician with a focus on micro-technology, Bianca Stotz gained experience in semiconductor technology in various manufacturing areas of ams. Since 2011 she has been working in the field of training and certification of apprentices in technical and production-oriented vocations.

On June 5, 2019 the AGM elected Brian M. Kranzich to the Supervisory Board, replacing Jacob Jacobsson, who has been a member of the Supervisory Board since 2011. The AGM also re-elected Loh Kin Wah as a member of the Supervisory Board until 2022.

Unless decided otherwise by the Annual General Meeting, election periods for members of the Supervisory Board are for the longest period admissible acc. to § 87 subsect. 7 of the Austrian Stock Corporation Act, i.e. until the end of the Annual General Meeting that decides on their discharge for the fourth business year after the election. For this purpose, the business year in which they were elected is not included in the calculation. Individual election or election as a group are both possible under the Articles of Association (available at https://ams.com/corporate-governance) and the Austrian Stock Corporation Act. The Articles of Association do not stipulate any staggering of the Supervisory Board members' terms of office.

3.5 Internal Organization
3.5.1 Allocation of tasks in the Supervisory Board
Both the Management Board and the Supervisory Board have rules of procedure. The Supervisory Board has a Chairman and a Vice Chairman. The Supervisory Board can appoint one or more committees from its midst for the purpose of preparing its negotiations and resolutions or monitoring the implementation of its resolutions. The Supervisory Board of ams has formed the following committees: Compensation Committee, Audit Committee, Nomination Committee, Technology Committee and Convertible Bond Committee.

3.5.2 Members list, tasks and area of responsibility for all committees of the Supervisory Board

The information below shows committee memberships as of the reporting date.

– Compensation Committee
The Compensation Committee is responsible for negotiating and passing resolutions on the relationship between the company and the members of the Management Board except resolutions on appointments and dismissals of members of the Management Board (signing, adaption and termination of the employment contracts for members and remuneration for the Management Board, etc.). The members of this committee are Hans Jörg Kaltenbrunner (Chairman) and Michael Grimm.

– Audit Committee
The Audit Committee is, amongst other matters, in charge of examining the annual financial statements, the management report and the proposal on the appropriation of profits, preparing the reports to be submitted to the Annual General Meeting and discussing the audit report with the auditor. The members of this committee are Michael Grimm (Chairman), Tan Yen Yen and Andreas Pein.

– Nomination Committee
The Nomination Committee is responsible for preparing proposals to the Supervisory Board regarding appointments to executive positions that become available on the Management Board, strategies for succession planning and proposals to the Annual General Meeting regarding appointments to positions that become available on the Supervisory Board. The members of this committee are Brian Krzanich (Chairman), Hans Jörg Kaltenbrunner, Kin Wah Loh, Johann C. Eitner and Bianca Stotz.

– Technology Committee
The Technology Committee is responsible for reviewing and assessing targets set to measure short- and long-term technical performance and its commercial results, recommendations regarding important technology strategies, including R&D developments, as well as the protection of the company's intellectual property and evaluation of future trends in technology. The members of this committee are Kin Wah Loh (Chairman), Monika Henzinger, Brian Krzanich, Andreas Pein and Bianca Stotz.

– Long Term Incentive Plan Committee
The long-term incentive plan committee (the "LTIP Committee") is responsible for preparing the general policy and parameters of the long-term incentive plan (the "LTIP") of the ams Group for a final decision by the Supervisory Board and the annual Shareholders' Meeting to the extent required by law. Furthermore, it shall (i) periodically commission an external expert to review the general market conditions and advise on changes to the LTIP, (ii) review, change and approve the Management Board's proposal to award long-term incentives to employees of the ams Group and (iii) decide and approve the long-term incentives to members of the Management Board.The LTIP Committee consists of at least three members. The chairperson of the Supervisory Board and his or her deputy are always members of the LTIP Committee and the chairperson of the Supervisory Board also chairs the LTIP Committee. The members of this committee are Hans Jörg Kaltenbrunner (Chairman), Johann C. Eitner and Michael Grimm.

3.5.3 Working procedures of the Supervisory Board and its committees
The meetings of the Supervisory Board (SB) are presided over by the Chairman and, in his absence, by a Vice Chairman. Resolutions are passed by simple majority of the votes cast. In case of equality of votes, the Chairman's vote is decisive. The SB is entitled to request written reports on corporate affairs and managerial issues from the Management Board at any time. In principle, the Management Board also attends the SB meetings. Unless the chairman of the meeting decides otherwise the Management Board is merely granted an advisory vote. 10 days in advance of a SB meeting, the members of the SB receive the meeting agenda, which has been aligned with the Chairman, and extensive information on the agenda items. The members of the SB can pose questions to the Management Board and request additional information via an internal communications tool. In the SB meeting the Management Board provides details on the development of the business including human resources, on the financial performance and on the progress of longer-term technical and commercial projects. Extensive time is allocated to discussions with the Management Board and within the SB. In accordance with the Management Board by-laws resolutions on investments, acquisitions and other proposals by the Management Board are a further important element of each SB meeting.

The SB committees are entitled to adopt a resolution which is binding for the Supervisory Board only in cases where the committee has been granted such decision-making power by the Supervisory Board in advance. The Supervisory Board appoints a committee member as Committee Chairman and an additional committee member as the Chairman's deputy. Committee resolutions are passed by simple majority of the votes cast. In case of equality of votes, the Committee Chairman's vote is decisive.

The Supervisory Board normally convenes five times a year. During the past year, the Supervisory Board convened a total of seven times in meetings and held one additional strategy session. The Supervisory Board meetings lasted an average of around six and a half hours. The Compensation Committee convened a total of seven times with sessions lasting an average of around one hour. The Audit Committee convened a total of five times with sessions lasting an average of around one hour. The Nomination Committee convened one time with the session lasting one hour. The Technology Committee convened a total of three times with sessions lasting an average of around five hours. All members attended all meetings of the Supervisory Board and its Committees, with the exception of one member missing one meeting.

In addition, the Chairman and Deputy Chairman of the Supervisory Board held scheduled monthly telephone conferences with all members of the Management Board and frequent one-one telephone conferences with individual members of the Management Board.

3.6 Definition of Area of Responsibility
The Management Board of ams acts on its own responsibility and is not subject to instructions from the shareholders or the Supervisory Board. Specific legal transactions individually listed in the Austrian Stock Corporation Act require approval by the Supervisory Board. Amongst other responsibilities including succession planning and nomination and compensation of Board members, the Supervisory Board supervises the business conduct of the Management Board. This includes discussing regular updates on the company's financial and business development internally and with the Management Board and approving the company's budget for the following year. The Management Board clears the company's strategic orientation with the Supervisory Board and discusses the status of strategy implementation with the Supervisory Board at regular intervals.

3.7 Information and Control Instruments vis-à-vis the Management Board
The company possesses a Risk Management System, a Management Information System (MIS) and an internal audit function. Within the framework of the Risk Management System, recognizable risks in numerous areas of the company are compiled and assessed at least twice a year. Further details on the Risk Management System are given in item 8 of the Group Management Report. The principal results are subsequently evaluated by the Management Board and brought to the attention of the Supervisory Board. The company's MIS compiles a multitude of performance indicators from various areas of the company as well as comprehensive financial information and promptly makes them available to management as processed files in electronic form. The Supervisory Board receives monthly and quarterly reports based on information from the MIS. The internal audit function compiles four audit reports per year which are made available to the Supervisory Board and cover specific areas of audit jointly defined by the Management and Supervisory Boards.

4. Management Board

4.1 / 4.2 Members of the Management Board, Other Activities and Vested Interests
Insofar as nothing to the contrary is mentioned below, no material activities or vested interests exist regarding the members of the Management Board.

Alexander Everke, born in 1963, German citizen. Member of the Management Board since October 2015 and Chairman of the Management Board since March 2016. Contract term until 2021. Alexander Everke started his career in the semiconductor industry in 1991 with Siemens as Marketing Manager and Director. In 1996 he joined the Siemens spinoff Infineon as Vice President Sales responsible for the Memory Products Division. In 2001 he became Senior Vice President Sales responsible for the Global Sales Organization of Infineon. His final position with Infineon was Senior Vice President and General Manager for the Chip Card & Security ICs Business Unit before joining NXP Semiconductor UK as General Manager in 2006. In 2007 Alexander Everke became a Member of the NXP Management Team and served as Executive Vice President and General Manager for the Business Units Multimarket Semiconductors, High Performance Mixed Signal and Infrastructure & Industrial reporting in all roles directly to the CEO of NXP Semiconductor. Alexander Everke holds a Master diploma in Electrical Engineering and a Master degree in Business Administration.

Michael Wachsler-Markowitsch, born in 1968, Austrian citizen. Member of the Management Board responsible for finance since February 2004. Contract term until 2020. He has been with ams since 2001, holding the position of Chief Financial Officer (CFO) since 2003. During his more than 20-year career, Michael Wachsler-Markowitsch was finance director of Ahead Communications AG and worked as a consultant and auditor for international mandates at KPMG Austria. He has extensive experience in accounting, corporate finance and tax consultancy. Michael Wachsler-Markowitsch studied Business Administration at Vienna University of Business and Economics (Magister degree) and founded Dynaconsult GmbH, an IT consulting firm, during the same period. He is member of the Management Board of the Styrian Federation of Industry and heads the representative body for the electrical and electronics industries at the Styrian Chamber of Commerce. In March 2020 ams has announced that Michael Wachsler-Markowitsch will step down from his position in the Management Board of ams in the second quarter 2020, with a view to standing for election to the Supervisory Board of ams in 2022.

Dr. Thomas Stockmeier, born in 1958, German citizen. Member of the Management Board responsible for operations since October 2014. Contract term until 2020. He joined ams in April 2013 as Executive Vice President and General Manager of the Industrial & Medical business. In July 2014, he was appointed Executive Vice President and General Manager of the Division Sensors and Sensor Interfaces as well as Corporate

Technology. Dr. Thomas Stockmeier has 35 years of broad experience in the electronics industry, gained with ABB in Switzerland and the U.S. where he spent 13 years holding various positions in R&D and management. Before joining ams, he worked at SEMIKRON for 13 years as Member of the Management Board and Chief Technology Officer (CTO) responsible for R&D, Operations, and Quality. Dr. Thomas Stockmeier received a Diploma Degree in Material Science and a Doctorate Degree in Electrical Engineering from the University of Erlangen-Nuremberg.

Mark Hamersma, born in 1968, Dutch citizen. Member of the Management Board responsible for Business Development since January 2018. Contract term until 2020. He joined ams in early 2016 as General Manager for the Division Environmental and Audio Sensors and head of Strategy and M&A. Mark Hamersma has 24 years of experience in the high-tech industry in strategy and business development, M&A and general management roles. Since joining ams he helped formulate ams' sensor solutions strategy and closed more than ten M&A and partnership deals. Before ams, Mark Hamersma was a Senior Vice President at NXP Semiconductors where over a period of 11 years he was responsible for Corporate Strategy, M&A, Strategic Marketing and Corporate Communications, and was General Manager of Emerging Businesses. Prior to that, Mark was a partner at McKinsey & Company focused on clients in the high-tech, telecoms and private equity sectors.

4.3 Management Contracts
There are currently no management contracts.

5. Compensation, Shareholdings and Loans

5.1 Content and Method of Determining Compensation and Share Ownership Programs
The Annual General Meeting is in charge of determining the remuneration of the company's Supervisory Board. A shareholder may submit a proposal for resolution to the Annual General Meeting.

The Compensation Committee determines the fixed compensation and the criteria for the variable remuneration of the individual Management Board members for the term of the respective contract. The targets for the variable remuneration on an annual basis are determined by the Compensation Committee and by the LTIP Committee for the share ownership programs of the individual Management Board members. The Management Board members do not have a right to attend these meetings. The Supervisory Board is informed about the developments in this process at least once. In the year under review, an external consultant was involved in the proceedings, who also provides support in drafting the contracts of the Management Board.

The amount of the annual variable part of the Management Board remuneration is determined according to the fulfillment of annually determined performance targets for the members of the Management Board. For the annual variable part of the remuneration paid in 2019 for the performance in 2018, the amount was based on targets for revenues for 40%, operating result (EBIT) for 30% and net debt ratio (Net Debt/EBITDA) for 30%. The determination of the annual compensation includes an external benchmarking of the remuneration and remuneration structure with respect to comparable positions in the global electronics and semiconductor industry. These include companies from the European, Anglo-American and Asian regions, which are active in the semiconductor as well as optical, audio and imaging sensor industries. These include companies such as STMicroelectronics N.V., Broadcom Limited, Maxim Integrated, Analog Devices, Infineon and ASE. Further details are given below in section 5.2 regarding the remuneration and under Note 4 "Expenses" of the Notes to the Consolidated Financial Statements (page 93-100 of this report) regarding regarding the terms and structure of the share ownership programs.

The annual variable part of the remuneration paid in 2019 was 20% of the basic remuneration for the Chairman of the Management Board (CEO), the CFO, the COO and the CBO.

In case of severance, two Management Board members receive a severance pay of two gross monthly salaries per year of service up to a maximum of two yearly gross salaries. In case of termination or non-extension of their Board membership, these Management Board members have a claim in the amount of the severance pay. There are no further claims from company pension schemes or in case of termination of Board membership. D&O insurance is in place for members of the Management Board and for members of the Supervisory Board.

5.2 Remuneration report in keeping with Arts. 14 to 16 Ordinance against Excessive Compensation at Listed Joint-Stock Companies (OaEC)
The remuneration of the salary component of the Management Board is largely dependent on the variable component, which depends mainly on the economic and financial success of the previous year. Regarding compensation for acting Board members, the relevant details are available below. In the year under review, former Board members were not granted any compensation or severance pay. Regarding clauses on changes of control please refer to section 7.2

	Chairman of Management Board (CEO)		Management Board total	
Remuneration (in thousands of EUR)	**2019**	**2018**	**2019**	**2018**
Salary				
Salary, not variable	715	640	1,974	1,839
Salary, variable*	137	300	400	869
Options				
Options (value at allocation, subject to performance criteria)	6,455	1,222	14,437	4,000
Non cash benefit				
Car and others (non cash benefit)	12	12	33	26
Expenses for precautionary measures				
Contribution to accident insurance	0	2	0	4

* Total variable salary of the Management Board paid in the financial years 2019 and 2018. The total variable salary of the Management Board for the financial year 2019 shown in note 29 of the Notes to the Consolidated Financial Statements (page 137 of this report) differs as it is calculated as the net effect of the release of the provision for the variable salary for 2019, the provision for the variable salary for 2020 and the payout in 2019.

The company's executive officers hold 34,400 shares and call options for the purchase of 1,925,994 shares of ams AG as of December 31, 2019 (34,400 shares and call options for the purchase of 1,861,259 shares as of December 31, 2018).

During the year under review 0 (2018: 25,540) call options to purchase shares of ams AG under the LTIP 2014, 0 (2018: 0) call options to purchase shares of ams AG under SLTIP 2018, 192,518 call options to purchase shares of ams AG under LTIP 2019 and 83,270 call options to purchase shares of ams AG under the SSOP 2019 were allocated to the Chairman of the Management Board. 0 call options under LTIP 2014 (2018: 77,380), 0 (2018: 35,560) call options to purchase shares of ams AG under the SLTIP 2018, 425,235 call options to purchase shares of ams AG under LTIP 2019 and 201,950 call options to purchase shares of ams AG under the SSOP 2019 were allocated to the Management Board in total. The strike price is EUR 1.00 for LTIP 2014 options, EUR 43.41 for SLTIP 2018 options, EUR 1.00 for LTIP 2019 options and EUR 20.63 for SSOP 2019 options.

For conditions, criteria, objectives and valuations of the call options for shares of ams AG based on the LTIP 2014, SLTIP 2018, LTIP 2019 and SSOP 2019 please refer to Note 4 "Expenses" of the Notes to the Consolidated Financial Statements (page 93-100 of this report). Persons related to the Management Board members held 1,250 shares and 0 options to purchase shares of ams AG as of December 31, 2019 (1,250 shares and 0 options as of December 31, 2018).

The remuneration of the company's Supervisory Board amounted to EUR 780 thousand (2018: EUR 538 thousand). All remunerations were or are be paid directly by the company. No member of the Supervisory Board supplied consulting services in the year under review (2018: EUR 5 thousand). The company has no consulting agreements with its known shareholders. The remuneration for the Supervisory Board members presented shows the amounts actually paid during the fiscal year. The remuneration for fiscal year 2019 will be determined in the Annual General Meeting on June 3, 2020. Persons related to the Supervisory Board members held no shares and no options to purchase shares of ams AG as of December 31, 2019 (0 shares and 0 options as of December 31, 2018).

Supervisory Board remuneration 2019

in thousands of EUR	Function	Supervisory Board gross remuneration, fixed	Refund of travel expenses	Number of shares held as of Dec. 31	Number of options held as of Dec. 31
Name					
Hans Jörg Kaltenbrunner	Chairman	125	14	0	0
Michael Grimm	Vice Chairman	105	8	0	0
Jacob Jacobsson	Member (until June 5, 2019)	135	13	54,000	0
Yen Yen Tan	Member	85	41	0	0
Monika Henzinger	Member	85	2	0	0
Kin Wah Loh	Member	100	35	0	0
Brian Krzanich	Member (since June 5, 2019)	0	31	0	
Johann Eitner	Employee representative	0	0	0	0
Bianca Stotz	Employee representative	0	0	0	0
Andreas Pein	Employee representative	0	0	0	335
		635	**145**	**54,000**	**335**

Supervisory Board remuneration 2018

in thousands of EUR	Function	Supervisory Board gross remuneration, fixed	Refund of travel expenses	Number of shares held as of Dec. 31	Number of options held as of Dec. 31
Name					
Hans Jörg Kaltenbrunner	Chairman	105	0	0	0
Prof. Dr. Siegfried Selberherr	Vice Chairman (until June 6, 2018)	85	2	0	0
Michael Grimm	Vice Chairman	80	0	0	0
Klaus Iffland	Member (until June 6, 2018)	65	0	0	0
Jacob Jacobsson	Member	65	21	54,000	0
Yen Yen Tan	Member (since June 6, 2018)	0	10	0	0
Monika Henzinger	Member (since June 6, 2018)	0	0	0	0
Kin Wah Loh	Member	65	40	0	0
Johann Eitner	Employee representative	0	0	0	0
Bianca Stotz	Employee representative	0	0	0	0
Andreas Pein	Employee representative	0	0	0	335
		465	**73**	**54,000**	**335**

6. Shareholders' Right of Participation

6.1 Voting Rights and Representation Restrictions
All shareholders of ams hold common bearer shares. Every share entitles its bearer to one vote at the Annual General Meeting. There are no voting right restrictions. Voting by proxy is only possible with a written power of attorney which remains with the company.

6.2 Statutory Quorums
The resolutions passed by the Annual General Meeting require the majority of the votes cast (simple majority) insofar as the Austrian Stock Corporation Act or the Articles of Association do not foresee a larger majority or additional requirements. ams' Articles of Association do not call for a higher number of votes than those required by the Austrian Stock Corporation Act.

6.3 Convocation of the Annual General Meeting
Pursuant to the Austrian Stock Corporation Act, the Annual General Meeting is convened by the Management Board. In accordance with the company's Articles of Association, the Annual General Meeting shall be convened at least 28 days prior to the appointed date. The convocation is published in the "Wiener Zeitung" and announced in "Finanz & Wirtschaft".

6.4 Agenda
In compliance with the Austrian Stock Corporation Act, the agenda proposed for the Annual General Meeting shall be published in connection with the convocation of said meeting. Within 21 days prior to the date of the Annual General Meeting, a minority of 5% of the ordinary capital may demand that the agenda of a previously convened Annual General Meeting shall be supplemented. Those proposing must have been in possession of the shares for at least three months prior to making their proposal.

6.5 Inscriptions into the Share Register
The company only has bearer shares outstanding and therefore does not keep a share register.

7. Changes of Control and Defense Measures

7.1 Duty to Make a Public Offer
Since ams is an Austrian corporation mainly listed in Switzerland, the regulations of the Swiss Federal Act on Financial Market Infrastructures and Market Conduct in Securities and Derivatives Trading (Financial Market Infrastructure Act, FMIA) regarding public takeover offers apply at the reporting date. Under article 135 para. 1 FMIA, anyone acquiring equity securities with 33 1/3% or more of all voting rights must mandatorily make a public tender offer. The Articles of Association of ams (available at https://ams.com/corporate-governance) contain neither an opting-up clause (in other words, they do not raise this percentage threshold) nor an opting-out clause (i.e., they do not waive the requirement of a tender offer). At the same time, the regulations of Austrian takeover law relating to offer obligations do not apply to ams.

7.2 Clauses on Changes of Control
At the reporting date, no clauses on changes of control existed in agreements or plans involving members of the Supervisory Board, the Management Board or other members of management.

8. Auditors

8.1 Duration of the Mandate and Term of Office of the Lead Auditor
The existing auditing mandate was assumed by KPMG Alpen-Treuhand GmbH, now KPMG Austria GmbH, Wirtschaftsprüfungs- und Steuerberatungsgesellschaft, Vienna, in 2005. Its election as auditor for the year under review was confirmed at the Annual General Meeting on June 5, 2019. The audit partner responsible for this mandate, Helmut Kerschbaumer, took office for the first time for fiscal year 2015.

8.2 Auditing Fees
The auditing firm charged auditing fees amounting to EUR 341 thousand during the year under review.

8.3 Additional Fees
The auditing firm charged fees for additional consulting services amounting to EUR 117 thousand during the year under review, mostly related to M&A activities.

8.4 Supervisory and Control Instruments Pertaining to the Audit
The auditor reports to the Supervisory Board's Audit Committee both orally and in writing on a regular basis, typically several times over the course of the year. In the period under review, the auditor reported in five Audit Committee meetings, which were held in January, March, April, October, and December 2019 and attended one Supervisory Board meeting.

The auditor is monitored and evaluated by the Supervisory Board's Audit Committee at regular intervals. The auditor is selected on the basis of a tendering process that takes a catalog of criteria into account. The auditor's remuneration is regularly evaluated against prevailing market fees. The lead auditor for the company rotates every five years.

9. Information Policy

ams is committed to an open and transparent information policy towards the stakeholders. Important information on the development of business and the share price (reports, financial information and share price data) is available on the company website www.ams.com in the section "Investor". The financial calendar is available at https://ams.com/investor-calendar. The company's ad-hoc publications are available at https://ams.com/ad-hoc and can be subscribed via https://ams.com/investor-contact. Share-price-influencing events are published promptly through the media and on the website. ams issues quarterly reports regarding the development of its business. The publications are made available in electronic form at https://ams.com/financial-reports. The Annual Report may also be made available in a printed version. For the company's contact details, refer to the publishing information at the end of the Annual Report (page 150 of this report).

Advancement of Women
ams is committed to facilitating the career development of women in management positions and to increasing the share of women in its workforce over the medium term. However, as a highly technical company in a high-tech industry it remains difficult for ams to increase the ratio of women in management positions in Austria as well as internationally. The share of women in management positions (except Management Board members) was 18% in fiscal year 2019 (16% in fiscal year 2018). The overall share of women in the company's workforce was 50% in fiscal year 2019 (56% in fiscal year 2018). According to its Code of Conduct, ams refrains from any form of discrimination based on, for example, race, religion, political affiliation, sexual orientation and, in particular, gender.

FINANCIAL INFORMATION FOR FISCAL YEAR 2019

1. Overview of the Economic Environment and the Past Financial Year

The global semiconductor sector showed a very subdued development in 2019, driven by an increasingly volatile economic environment in key regions. Total global semiconductor industry sales in 2019 showed a 12.1% decline to USD 412.1 billion, while in 2018 the market volume increased by 13.7% to USD 468.8 billion. The analog semiconductor market relevant for ams declined by 8.3% to USD 53.9 billion last year (previous year: USD 58.8 billion). The optoelectronics market, which is partly also relevant for ams, grew by 9.3% to USD 41.6 billion in 2019 (previous year: USD 38.0 billion)[1].

ams is a leader in advanced sensor solutions based on its focus on innovation and more than 35 years of experience in sensors and analog semiconductors. ams recorded substantial growth in 2019 serving more than 8,000 customers globally, and increased its market presence in Asia/Pacific, Europe, and North America. Optical sensing continued to command the largest share of group revenues as the most important business area for ams.

As a major step forward on its strategic path focused on optical sensing, ams last year decided to pursue the highly strategic acquisition of OSRAM Licht AG, a leading global provider of light emitting technologies and photonics. In December 2019, ams was successful with its public tender offer for OSRAM Licht AG surpassing the required acceptance threshold. The transaction is expected to close by mid-year 2020 creating a worldwide leading player in sensor solutions and photonics.

ams' business segment "Consumer" comprises the products and sensor solutions for the market Consumer & Communication. ams' consumer business is an important supplier of advanced sensor solutions for smartphones and consumer devices worldwide and was again the company's key growth driver last year.

Within the consumer business, optical sensing solutions including 3D sensing and advanced display management comprised the majority of revenues and are therefore important revenue streams for the group overall. Leading in optical sensing, ams offers a broad portfolio of high performance solutions for 3D sensing including VCSEL-based illumination and NIR image sensors, advanced display management including behind-OLED sensing, ultra-compact proximity sensing, spectral and bio-sensing, and other optical applications. ams continued to drive innovation in optical technologies last year and introduced significant new technologies and product solutions to the market.

ams is a leading supplier of 3D sensing technology serving an increasing range of consumer 3D sensing applications and implementations. ams' wide-ranging 3D sensing portfolio and system expertise including 3D hard- and software supports all three approaches, structured light (SL), time-of-flight (ToF), and active stereo vision (ASV), for front-facing and world-facing applications. ams' advanced high power VCSELs, the company's optics competencies and its unequaled hard- and software portfolio enabling broad system capabilities are driving ams' market and technology position in 3D sensing.

Last year, ams shipped very substantial volumes of 3D sensing solutions to the leading smartphone OEMs globally and was able to expand its position in the Android market. ams currently supplies high quality 3D sensing illumination in all technologies SL, ToF and ASV and serves different customer needs across these approaches. ams' differentiated VCSEL technology is recognized for its excellent performance in 3D sensing applications. As a result and supported by ams' 3D system know-how, ams has built an attractive market position in high value VCSEL solutions for consumer 3D sensing. A key development for ams in 2019 was the introduction of world-facing iToF systems in smartphones, driving strongly increasing volumes of ams VCSEL 3D illumination solutions for world-facing iToF. These iToF systems enable camera enhancement features for better picture quality which are highly successful with consumers and are therefore expected to see wider adoption.

ams helped introduce the ASV 3D technology to the market last year, shipping into a first smartphone implementation of small form factor ASV. ASV offers high 3D performance including support for payment grade security at lower system complexity and total system cost. ams therefore expects ASV to establish a significant market position in 3D applications going forward. ams is receiving additional positive market feedback for the technology including OEM interest for ASV in mobile computing. In addition, ams expects dToF technology to play an important role in the future as 3D sensing applications continue to evolve and dToF offers performance advantages. ams pursues active development efforts in this promising area while OEM interest continues to increase.

Last summer, ams announced a partnership with image sensor specialist SmartSens for near-infrared (NIR) image sensing with high quantum efficiency (QE) which enables advanced optical performance. ams recently presented an ASV system design that includes a NIR sensor incorporating ams IP. The design combines ams illumination, sensing, software and biometrics into a fully integrated ams 3D system solution demonstrating ams' unequaled system capabilities and portfolio for 3D sensing. ams has further development activities in the area of NIR 3D system solutions that combine illumination and sensing. Driving the expansion of 3D sensing end markets, ams gained an industrial ASV design-win in a household device for a global OEM while market interest in industrial access applications is increasing. ams also introduced a highly accurate long-distance 1D ToF solution for precise distance capture last year for which ams gained a first design-win for laser detect autofocus (LDAF) in a high volume smartphone platform.

In other optical sensing, ams underscored its market leading position in display management for high performance ambient light and proximity sensing. ams introduced a significant innovation allowing OEMs to move high performance proximity and light sensing invisibly behind OLED displays. The unequaled BOLED light sensing technology saw outstanding market success already last year as OEMs are keen to pursue maximized screen-to-body ratio and bezel-less phone designs. Adoption is expanding quickly with ams already supplying BOLED solutions to a broad range of high volume Android smartphone and mobile device platforms by now. The ability to remove bezel-placed elements from the device front is expected to drive further design wins and adoption across leading mobile device OEMs. ams also introduced flicker detection sensing which improves picture quality by detecting artificial light flicker and is seeing growing adoption at Android OEMs. Across technologies, ams shipped a wide range of display management solutions to a broad base of consumer OEMs in 2019.

1) Source: WSTS, February 2020

Building on its unmatched BOLED capabilities, ams is working to move front-facing 3D sensing for face authentication invisibly behind the display. Development is progressing well and ams expects to present a demo implementation of a BOLED full ams ASV 3D system solution in the current year. Supporting the market trend to reduce visible components on the device front, ams expects this technology to create attractive new opportunities in consumer devices.

Significant R&D activities for new and future optical sensing, 3D sensing and VCSEL illumination continued through 2019. Leveraging spectral sensing technology, ams introduced a highly innovative solution for extremely accurate automatic white balancing in smartphone cameras using lower resolution spectral sensing. Correct white balancing plays an essential role in photography to realize best picture quality and color expression. Through detailed spectrum analysis of the light environment the solution offers previously impossible white balancing accuracy that approaches professional grade. This enables significantly higher picture quality and vivid natural colors for mobile devices. As a result, ams won a first design in a high end smartphone platform to be launched in 2020. ams remains engaged with OEMs for its optical sensing-based personal health solution which measures blood pressure and additional parameters in high quality, providing outstanding accuracy and extensive health data. In parallel, ams pursues medical grade certification for optical blood pressure measurement in the United States. Customer implementation of other spectral sensing in consumer devices developed more slowly than previously envisaged.

ams' audio sensing and other consumer product lines shipped in high volume to a range of OEMs and contributed attractively to 2019 results. MEMS microphone interfaces where ams has been a market leader showed a positive business development again last year. In December 2019, ams announced and closed the divestment of its MEMS microphone interface IC assets including related IP to Knowles Corporation, a long-time customer of ams, for USD 58 million in cash. While the profitable business commands a strong market position, this portfolio alignment supports ams' continuing focus on optical technologies. ams holds a leadership position in active noise cancellation for the growing ear- and headphone market serving accessory and device OEMs. Last year ams introduced an industry-first solution for high quality digital noise cancelling in loose-fit true wireless earbuds which has since gained a first design win with a large consumer OEM.

ams' automotive, industrial, and medical businesses showed an overall muted performance in 2019 reflecting a difficult market environment in the automotive and industrial markets during the year. Focused on high value sensing solutions, ams benefited from its diversified range of non-consumer end markets and continued to drive innovation as a leading supplier to global OEMs. The automotive, industrial and medical businesses recorded a more positive trend towards the end of the year in the fourth quarter.

ams' automotive business achieved solid results last year despite a generally weakening demand situation in the automotive market worldwide. Demand trends turned increasingly muted across world regions in 2019, resulting in a more subdued market environment. Focused on safety, driver assistance/autonomous driving, position sensing, and chassis control, ams' automotive portfolio serves a range of Tier 1 suppliers, OEMs and market segments with a wide spectrum of sensing solutions. Leading automotive system suppliers rely on ams' differentiated solutions as market traction continues to increase in Asia including Japan.

ams continued its significant R&D investments for advanced LIDAR architectures where ams' VCSEL illumination technology is seeing very good traction with major automotive players. Next to the large-scale 3D true solid-state LIDAR illumination program for ZF, the leading tier 1 system supplier, in conjunction with IBEO, ams has active LIDAR engagements in different geographies and won two further LIDAR illumination projects at two additional tier 1 system suppliers last year. ams' addressable high power VCSEL arrays offer significant system-level advantages for different scanning architectures as ams supports several architectures with complete subsystems including dedicated current driver ICs.

In-cabin monitoring is evolving into a meaningful new optical application in automotive as OEMs and Tier 1 suppliers show strong interest in different 2D/3D use cases. ams sees attractive opportunities for its portfolio technologies in this attractive market and has won a first 3D ToF illumination project at a global tier 1 supplier. Recently, ams showcased a full ams 3D system solution for highly miniaturized dashboard-integrated driver recognition based on ASV with ams illumination and NIR sensing. The sizeable emerging market for automotive projected lighting is also showing good momentum with ams' customer base expanding last year. Advanced VCSEL/micro-lens projector systems enable new comfort and safety features as well as differentiated lighting applications such as welcome light carpets.

ams' industrial business performed in line with muted expectations against the background of weaker end market demand over the course of 2019. ams remains a leading supplier of industrial sensing solutions to OEMs worldwide serving the industrial automation, factory automation, HABA, and additional industrial markets. ams' broad and differentiated industrial portfolio addresses market developments in sensor-rich industrial IoT and Industry 4.0 as new applications including 3D sensing create growth opportunities for the coming years. ams' industrial imaging and machine vision business continued to leverage its industry-leading global shutter technology with new designs last year. In high performance image sensing, ams offers innovative solutions for a range of growth applications. 3D sensing applications are starting to emerge in the fields of household appliances and access where 3D technology creates new optical sensing markets. The SmartSens partnership allows ams, together with its internal hard- and software capabilities, to design full system solutions for new 3D use cases.

ams' medical business recorded a very positive performance and significant growth in 2019 despite a generally challenging macro-economic environment worldwide. ams confirmed its market-leading position in Medical Imaging for computed tomography (CT), digital X-ray, and mammography which was again the core driver of ams' medical business in the year under review. ams continued to expand its medical imaging business in Asia serving multiple OEMs based in Asia. ams is a leader in next generation medical endoscopy offering the world's smallest cameras for endoscopy and shipping NanEye solutions in volume to several customers. Recently, ams introduced an industry-first ASSP sensing solution for CT imaging where previously only fully customized solutions were available. Based on monolithic integration of the sensing and analog-to-digital conversion, the innovative solution offers OEMs high performance imaging at significantly lower system cost and complexity. At the same time, doctors and patients benefit from high resolution diagnostics at low radiation doses.

In January 2020, ams closed the joint venture transaction for its environmental sensing activities which had been announced in spring 2019.

The joint venture with Wise Road Capital, in which ams holds a minority shareholding, will allow the business to successfully address growth opportunities in environmental and related applications with a focus on Asia. Related to the joint venture creation, ams received an undisclosed consideration in cash.

In operations, ams significantly redesigned and improved manufacturing processes in its Singapore locations in 2019. As a result, production efficiency and yields increased strongly with lower levels of labor and materials required when compared to the previous manufacturing setup. These achievements allowed ams to record meaningfully better profitability in its Singapore manufacturing operations compared to the previous year. ams' front-end wafer manufacturing in Austria was again fully utilized in 2019.

ams successfully completed the construction of its internal VCSEL production line in 2019. The production ramp of the front-end facility started, as envisaged, at the end of the year and is expected to extend through this current year. The investment allows ams to exploit differentiation opportunities in high power VCSEL technology through both design and manufacturing. Combining scalable outsourced and internal VCSEL capacity positions ams to support expected future volume needs in this growth area.

2. Business Results

2.1 Development of Revenues

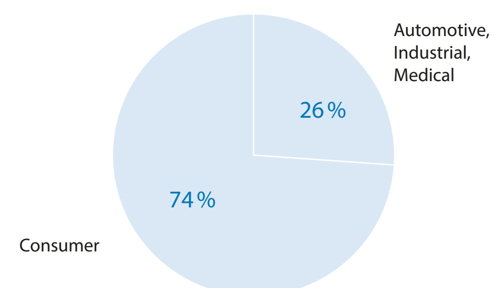
Consolidated group revenues for the financial year 2019 increased by 32% to EUR 1,885.3 million compared to EUR 1,426.3 million in 2018. This development was primarily due to the exceptional growth in demand in the target market Consumer (+39%) in conjunction with solid overall demand for ams' solutions in the Automotive, Industry and Medical markets (AIM). The revenue increase in the company's Consumer business was particularly driven by further deployment of optical sensing solutions in 3D sensing and high-quality light sensors for advanced display management, as well as the business development of leading smartphone manufactures using ams-solutions. At the same time, ams' Automotive, Industry and Medical businesses were able to contribute attractively against the backdrop of a more subdued worldwide development of demand.

The revenue distribution by markets is shown below:

Revenue distribution by markets

in millions of EUR	2019	% of revenues	2018	% of revenues	Change in %
Consumer	1,398.7	74%	1,007.9	71%	+39%
AIM	486.6	26%	418.4	29%	+16%
	1,885.3		**1,426.3**		

Revenue distribution by markets



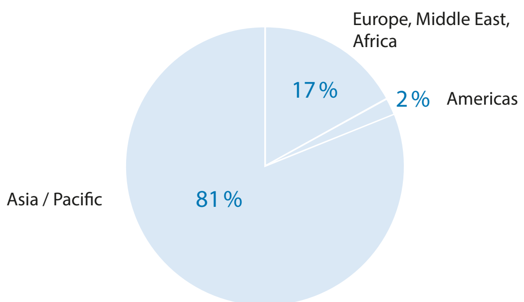
The distribution of revenues by region does not reflect the demand situation in ams' target markets but the geographic billing location of the company's customers. Business in the Asia / Pacific region showed a significant increase in 2019 compared to the previous year, particularly due to higher revenues from a major Asian customer.

The expansion of the company's sales and distribution network continued last year enabling the addition of new customers and a higher market presence in all regions. Based on this development, ams expects all regions to continue to contribute to the overall growth of the company.

The revenue breakdown by region (based on billing location) is shown below:

in millions of EUR	2019	% of revenues	2018	% of revenues	Change in %
EMEA	315.9	17%	259.4	18%	+22%
Americas	37.1	2%	78.0	6%	-52%
Asia / Pacific	1,532.2	81%	1,088.9	76%	+41%
	1,885.3		**1,426.3**		

Revenue breakdown by region



2.2 Orders Received and Order Backlog

Orders received reflect the positive business development across all major markets with EUR 1,819.6 million in 2019 in comparison to the previous year of EUR 1,258.0 million in 2018.

ams' year-end order backlog decreased by 18% to EUR 239.6 million on December 31, 2019 compared to EUR 291.8 million at year-end 2018. This high level nevertheless constitutes an excellent starting point for 2020.

Revenues and orders developed as follows:

in millions of EUR	2019	2018	Change in %
Revenues	1,885.3	1,426.3	+32%
Orders received	1,819.6	1,258.0	+45%
Total order backlog	**239.6**	**291.8**	**-18%**

2.3 Earnings

Gross profit increased to EUR 722.9 million in 2019 compared to EUR 387.9 million in the previous year. The company's full year gross margin excluding acquisition-related amortization and share-based compensations costs increased to 41% compared to 32% in 2018, gross margin including acquisition-related amortization and share-based compensations costs also increased to 38% compared to 27% in the previous year. The improved utilization of production capacities in Singapore in 2019 had a positive effect on the gross margin. This improved capacity utilization resulted from significantly higher customer volumes in the consumer business compared to 2018. Furthermore, the price trend for the Company's products was stable overall.

Research and development costs, as well as marketing and sales expenses showed an increase in 2019 compared to the previous year. This development resulted from significant product development efforts and an optimization of sales activities as personnel costs showed a further increase. Administrative costs were also higher compared to the year before mostly due to an increase in personnel costs.

Due to the increase in sales and improved capacity utilization, operating result (EBIT) (including acquisition-related amortization and share-based compensations costs) increased by EUR 315.8 million to EUR 328.7 million. EBITDA (earnings before interest and taxes plus depreciation and amortization) increased by EUR 396.4 million to EUR 621.9 million.

Net result for 2019 increased to EUR 299.8 million compared to EUR 93.4 million in 2018. The return on equity reached 18% compared to 7% for 2018 while the return on revenues increased by 9.0 percentage points to 16% (2018: 7%).

in millions of EUR	2019	2018	Change in %
Gross profit on revenues	722.9	387.9	+86%
Gross margin (excluding acquisition-related and share-based compensation costs)	41%	32%	
Gross margin (including acquisition-related and share-based compensation costs)	38%	27%	
EBITDA	621.9	225.5	+176%
Operating result (EBIT)	328.7	12.9	+2,448%
EBIT margin (including acquisition-related and share-based compensation costs)	17%	1%	
Financial result	-12.9	78.4	-117%
Result before tax	315.8	91.3	+246%
Net result	299.8	93.4	+221%
Return on equity	18%	7%	
Return on revenues	16%	7%	

2.4 Assets and Financial Position

The balance sheet structure shows a high ratio of fixed to total assets which is common in the semiconductor industry, at the same time intangible assets reflect the acquisitions concluded during the last years. The share of intangibles and property, plant and equipment in the total assets decreased from 68% in 2018 to 51% in the reporting period 2019.

The investments in fixed assets affecting cash (capital expenditures) of EUR 181.6 million were lower than the current depreciation and amortization of EUR 280.2 million and amounted to 10% of full year revenues (2018: 29%). The ratio of equity to fixed assets reached 75% in 2019 compared to 53% in the previous year, thus reflecting the investments in fixed assets, strategic investments and the increase in equity compared to 2018.

In the past fiscal year, the Company acquired 19.99% of OSRAM Licht AG as part of a strategic transaction.

The fixed assets include a deferred tax asset of EUR 8.5 million (previous year: EUR 16.3 million). Under the current tax legislation, this tax asset can be carried forward indefinitely but is expected to be used to offset profit taxes within the next five years.

Inventories amounted to EUR 210.2 million at the end of 2019 (2018: EUR 309,9 million). In particular, the improved internal production planning, combined with high capacity utilization and a constant inventory turnover rate, led to a year-on-year reduction of inventories.

Trade receivables at balance sheet date increased to EUR 201.9 million in the fourth quarter (2018: EUR 121.0 million). The average period of outstanding receivables showed an increase compared to the previous year.

Financial liabilities increased by EUR 263.2 million to EUR 2,082.2 million from EUR 1,819.0 million in 2018 as a result of drawing long-term credit lines – exploiting the historically low interest rate levels – for acquisitions and strategic investments. Consequently, net debt increased to EUR 1,581.8 million in 2019 compared to a net debt position of EUR 1,193.9 million in 2018. Group equity increased by 31% to EUR 1,689.7 million due to the improved operating result.

Regarding financial instruments we refer to the information in the notes.

in millions of EUR	**2019**	**2018**		**2019**	**2018**
Assets			**Equity and liabilities**		
Inventories	210.2	309.9	Financial liabilities	2,082.2	1,819.0
Trade receivables	201.9	121.0	Trade liabilities	135.5	175.9
Other current assets	716.2	663.3	Other liabilities	364.4	174.8
Fixed assets	3,296.6	2,474.1	Provisions	161.7	120.9
Deferred tax asset	8.5	16.3	Shareholders' equity	1,689.7	1,293.8
Total assets	**4,433.4**	**3,584.5**	**Total equity and liabilities**	**4,433.4**	**3,584.5**

Given the higher level of equity the company's debt-to-equity ratio decreased to 123% compared to 141% in the previous year. At the same time, the equity ratio increased to 38% (2018: 36%).

	2019	**2018**
Equity ratio	38%	36%
Debt to equity ratio	123%	141%
Equity to fixed assets ratio	75%	53%

These figures are directly derived from the group financial statements.

2.5 Cash Flow

The operating cash flow increased significantly to EUR 645.7 million in 2019 compared to EUR 315.4 million in the previous year. This increase was primarily due to the improved operating result. The cash flow from investing activities was EUR -914.4 million (2018: EUR -414.7 million) including EUR -181.6 million of expenditures for intangible assets, property, plant and equipment (2018: EUR -412.9 million) and EUR -8.1 million for company acquisitions (2018: EUR -24.8 million).

Additionally the Cash flow from investing activities was driven by the purchase of shares from Osram Licht AG amounting to EUR 777.4 million. Free cash flow amounted to EUR -268.8 million (2018: EUR -99.3 million). The company's available liquidity decreased by EUR 124.8 million to EUR 500.4 million at the end of 2019. The cash flow from financing activities amounted to EUR 143.1 million in 2019 compared to EUR 406.5 million in the previous year.

in millions of EUR	**2019**	**2018**	**Change in %**
Operating cash flow	645.7	315.4	+105%
Cash flow from investing activities	-914.4	-414.7	-121%
Free cash flow	-268.8	-99.3	-171%
Cash flow from financing activities	143.1	406.5	-65%
Effects of changes in foreign exchange rates on cash and cash equivalents	1.0	-2.4	+140%
Cash and cash equivalents	500.4	625.2	-20%

3. Research and Development

ams' technological leadership in the design and manufacture of high performance sensor solutions is based on almost 40 years of intensive research and development activities. In order to secure and strengthen its leading position, the company makes significant investments in research and development on a continuous basis. Research and development expenses amounted to EUR 261.2 million last year, or 14% of revenues, compared to EUR 239.1 million in the previous year (17% of revenues). These R&D activities have enabled ams' growth in recent years and are the basis of an extensive product and design pipeline for the coming years. The average number of employees in research and development was 1,293 in 2019 (2018: 1,321).

ams' R&D activities mainly encompass optical, image and audio sensing technologies for the company's end markets Consumer, Automotive, Industrial and Medical. Additionally, the development of related software and algorithms has become an integral part of ams' R&D activities. Together, these ongoing investments in R&D have allowed ams to successfully position itself as a provider of sensor solutions in contrast to single component suppliers.

Recent product developments based on ams' R&D activities include behind-OLED light sensing solutions, illumination solutions for 3D sensing applications in structured light, time-of-flight and active stereo vision, high-power VCSEL emitters for automotive ADAS (Advanced Driver Assistance Systems), active noise cancellation for loose-fitting true wireless earbuds, and high QE NIR image sensors for 3D sensing.

Focus areas in technology development include advanced optical designs and micro-optics, high power VCSEL emitters, optical coatings enabling superior filter and light selectivity capabilities, NIR and hyperspectral imaging sensors as well 3D sensing system solutions.

ams' R&D activities again allowed the filing of a large number of international patents and the publication of numerous papers in international specialist journals and at trade conferences last year.

4. Purchasing and Manufacturing

In purchasing, ams was able to reduce the cost of raw materials and assembly services slightly last year which had a positive effect on the gross profit margin. Given continuously rising personnel costs the cost pressures in manufacturing nevertheless remain high.

The production facilities in Singapore recorded increased capacity utilization due to higher customer volumes in the consumer segment and improved planning for fiscal year 2019. Internal production capacity of the Austrian production location was fully utilized throughout the year 2019. Any unabsorbed fixed costs have been recorded in the income statement.

Gross margin excluding acquisition-related amortization and share-based compensations costs increased to 41% compared to 32% in 2018, gross margin including acquisition-related amortization and share-based compensations costs increased as well to 39% from 27% in the previous year. This positive development was mainly due to product mix effects and the improved operating result.

Given the positive demand environment for its products and solutions ams expects another year of very high capacity utilization for 2020.

5. Employees

On average, ams had 8,811 employees in 2019 (2018: 10,322) of which 1,361 worked at the company headquarters in Premstaetten (2018: 1,374). The decrease of 1,511 employees comprises the departure of 28 employees in research and development, 1,717 employees in production and the addition of 234 employees in General and Administration. At 31.12.2019, the ams group employed 8,609 employees (2018: 9,884).

ams recognizes its responsibility as an important employer in the region. The company again offered a wide range of internal and external training and development opportunities for all employees last year and provided training positions for apprentices.

ams attempts to retain its employees with the help of a long-term remuneration model. A profit sharing program for all ams employees augments the existing employee stock option and incentive programs by way of an attractive direct component. The profit sharing program expresses ams' belief that the company's employees are its most important success factor and honors every employee's contribution to ams' success.

Due to the development of earnings in the previous year, no distribution was made in 2019 (2018: EUR 1.6 million). The profit-sharing payout depends on the pre-tax operating result in relation to annual sales (EBT margin).

Moreover, active internal and employee communications as well as regular employee events which form a company tradition serve to ensure the employees' identification with the company.

6. Environment

Acting responsibly towards the environment is a basic principle for ams in all business operations. ams is dedicated to meeting the highest environmental standards as well as using resources and the environment conservatively. ams has therefore been certified to ISO 14001:2004 for a number of years.

Sustainability as well as efforts to preserve environmental resources and reduce energy costs and carbon dioxide emissions are major concerns for ams which have been supported by a range of activities for many years. Based on a thorough analysis of ams' carbon dioxide emission sources in 2009, measures to achieve further reductions in carbon dioxide emissions are being defined each subsequent year.

ams also submits information on its carbon dioxide emissions to the Carbon Disclosure Project, a global transparency initiative which has created the world's largest freely available database of corporate carbon dioxide emissions.

7. Subsidiaries and Branch Facilities

ams currently has subsidiaries in Switzerland, Italy, Germany, Slovenia, France, Belgium, the Netherlands, the United Kingdom, Spain, Portugal, Sweden, the U.S., the Cayman Islands, the Philippines, China, Japan, Korea, India, Taiwan, Malaysia and Singapore. The subsidiaries in the USA, Switzerland, Italy, Spain, the United Kingdom, Slovenia, Germany, Japan, Taiwan, Malaysia and India carry out development, marketing and sales activities, while the subsidiaries in France and China are active in marketing and sales and technical support. The subsidiary in the Philippines is responsible for production activities in testing, while the subsidiary in Korea is responsible for sales and assembly in the region. The subsidiary in Singapore conducts production, marketing, sales and research and development activities. Branch facilities exist in Hong Kong, Singapore and Thailand.

Principal shareholdings: The investment in NewScale Technologies, Inc., Victor, New York (USA), has been reduced to 29.0%. NewScale Technologies develops piezo-based miniature motor technologies and licenses products and technologies to industrial partners. The investment in 7Sensing Software NV, Leuven, Belgium, amounts to 30.0% of the shares and has been reduced by 5% compared to the previous year. 7Sensing Software NV develops software-solutions for 3D Sensing, which are applicable in the consumer business.

In 2019, ams acquired significant shareholdings including 19.99% of OSRAM Licht AG, Munich (DEU) and 49.0% of Jinan Smart Sensing Sensor Co, Ltd, Shanghai (CHN). OSRAM Licht AG is a globally active company that manufactures light sources and systems for special applications, semiconductor-based lighting products (LED) and professional luminaires and solutions. Jinan Smart Sensing Sensor Co, Ltd.is a holding for a future leading global supplier of high-performance CMOS imaging systems and a pioneer in the video surveillance industry.

8. Risk Management

Operating on a global basis, the ams group is exposed to a variety of risks that are inextricably linked to business activities. In order to identify, evaluate and counteract these risks in a timely manner, ams has developed and implemented tight internal risk management systems. This risk management system was implemented and benchmarked against best practices in conjunction with external advisors. The risk management process in place requires the business units to constantly monitor and evaluate risks. Regular risk reports are prepared for the management board and supervisory board. This ensures that major risks are identified and counteraction can be taken at an early stage.

The internal audit function complements the risk management process. In close alignment with the supervisory board's audit committee it aims to analyze internal processes and if necessary propose improvements.

Business Interruption Risk

The company's state-of-the-art 200mm manufacturing facility went into operation in 2002. Although more than 15 years old the facility is regarded as comparatively new by analog semiconductor industry standards. In addition, the continuous maintenance and renewal process ensures uninterrupted operation of the production facility. Therefore the risk of breakdowns or prolonged downtime is relatively low. In addition, this risk is being minimized further by preventive maintenance activities. The business interruption risk is additionally insured for the replacement price and against loss of earnings for 18 months. ams' insurer, FM Global, has awarded the company – as one of a select number of semiconductor manufacturers – the HPR (highly protected risk) status.

Financial Risks

Risk management is handled centrally by the treasury department in accordance with guidelines issued by the management board. These detailed internal guidelines regulate responsibility and action parameters for the areas affected. The treasury department evaluates and hedges financial risks in close cooperation with the business units.

Receivables and Credit Risk

ams operates a strict credit policy. The creditworthiness of existing customers is constantly checked and new customers undergo a credit evaluation. Under ams' treasury and risk management policy, investments in liquid securities and transactions involving derivative financial instruments are only carried out with financial institutions that have high credit ratings. As of the balance sheet date there were no significant concentrations of credit risk.

Interest Rate Risk

Interest rate risk – the possible fluctuation in value of financial instruments due to changes in market interest rates – arises in relation to medium and long-term receivables and payables (especially borrowings). ams' treasury policy ensures that part of the interest rate risk is reduced by fixed-interest borrowings. On the liability side, 70% of all amounts owed to financial institutions are at fixed rates. Of the remaining borrowings on a floating rate basis (30%), 42% will be repaid over the next two years. The remaining floating rate borrowings undergo continual checks with regard to the interest rate risk. On the asset side, the interest rate risks are primarily attached to time deposits and securities in current assets that are tied to the market interest rate.

Foreign Exchange Risk

Financial transactions in the semiconductor industry are predominantly carried out in US dollars. To hedge the currency risk, all transaction and conversion risks are constantly monitored. Within the group, cash flow streams in the same currency are offset (netting). Currency fluctuations during foreign currency transactions mainly concern the US dollar. From the company's point of view, due to the current extreme volatility in the currency markets, it is not reasonable to engage in economically feasible, efficient, and low risk currency hedges.

Product Liability and Quality Risk

The products manufactured by ams are integrated into complex electronic systems. Faults or functional defects in the products produced by ams may have a direct or indirect effect on the property, health or life of third parties. The company is not in a position to reduce or exclude its liability towards consumers or third parties in sales agreements. Every product that leaves the company undergoes several qualified checks regarding quality and function. In spite of quality control systems certified to ISO/TS 16949, ISO/TS 13485, ISO 9001 und ISO 14001, product defects may occur and possibly only show up after installation and use of the finished products. Although this risk has been appropriately insured, quality problems could negatively impact ams' assets, financial and earnings position.

Patent Infringement Risk

ams manufactures complex ICs using various process technologies, line widths and production facilities. Like industry competitors, the company constantly has to develop these technologies further. Should ams infringe any existing patents while consistently monitoring processes, production methods, and design blocks protected under patent law as well as related comprehensive licensing, this may negatively impact the assets, financial and earnings position of the company as well as the ams share price.

Market Risk

ams operates in a high technology industry where short product life cycles meet constantly new innovations. Disruptive technologies which reach market maturity within a short period of time and which have not been co-developed by ams or for which the technological process competence is missing, can lead to a decline of the market share of ams in the affected sector. The internal market monitoring system identifies trends at an early stage, evaluates them and tries to distinguish them from inflationary expectations (hypes). Technological competencies required in the future are included early on in the technology roadmap, which is an integral part of medium- to long-term strategic planning. The regular coordination process (during the year) between the divisions and R&D also ensures that the product roadmaps and the technology roadmap cover the market priorities set by the divisions.

9. Events after the Balance Sheet Date

The closing of the transaction in connection with the investment in Jinan Smart Sensing Sensor Co in cooperation with Wise Road Capital on January 13, 2020, to which ams transferred its portfolio of environmental sensor solutions, has to be mentioned as a significant event after the balance sheet date.

In early 2020, the rapid spread of corona viruses and associated responses have negatively affected manufacturing and supply chain processes in a number of countries in the Asia, Australia and the Pacific region ("Asia/Pacific") on which the ams Group depends for its raw materials and parts or as a major customer base. It is not yet clear whether or to what extent this will continue to impact consumer behaviour, purchasing and demand trends, or manufacturing and supply chains in the affected countries and regions or whether the affected countries and regions will expand. If precautionary measures, such as the closure of manufacturing facilities or travel limitations, continue for a significant length of time, or if additional measures are implemented that would have a further negative impact, this will negatively impact the ams Group's ability to source component parts utilized in its production activities or may negatively impact the demand from customers for ams product to be used in the assembly of their products. In addition, if coronavirus (or precautionary measures put in place in response to coronavirus) has a negative impact on end-market consumer demand, in particular in key end-markets, this may result in reduced demand for the ams Group's products. At the time of statement of the consolidated financial statements, the Management Board of the Company is not aware of any material negative effects of the corona virus on the Group.

On January 24, 2020, the shareholders' extraordinary general meeting approved a capital increase of up to EUR 1,649,000,000.00, according to § 149 ff AktG against cash contribution and while maintaining the subscription right of the shareholders, in connection with the financing the transaction of OSRAM Licht AG (see note 22 in the notes to the consolidated financial statements).

10. Outlook

Uncertainties about the development of the world economy, private consumption and global industrial production prevail for the current year in a more complex macro-economic environment globally. ams is therefore subject to potential end market volatility, customer performance that may be difficult to anticipate, and potential unforeseen changes in demand trends and semiconductor industry dynamics.

At the same time, ams sees itself strongly positioned in its markets based on the expected launch of new technologies for attractive sensing applications, continuing high volume shipments, and production ramps of various design-wins. For the sensor and analog segments of the worldwide semiconductor industry, market researchers assume the market volume to expand in 2020 and currently expect year-on-year growth in the low single-digit percentage range (WSTS, February 2020). Consistent with these expectations, ams currently expects to record another year of profitable growth in 2020 for its existing business.

However, should global semiconductor demand and the macro-economic environment develop unfavorably in 2020 and/or the USD show notable weakness, ams would experience a meaningful impact on the development of its business and earnings, both on a stand-alone as well as on the expected consolidated basis including the OSRAM business.

Consistent with its growth strategy, ams pursues a continued leadership position in its strategic business areas with a clear focus on optical applications. ams will continue to pursue this approach following the expected addition of the OSRAM business. The unchanged mid-term priorities for ams – on a stand-alone basis as well as on the expected consolidated basis including the OSRAM business – are expanding the company's business with key accounts worldwide and a further profitable penetration of ams' global end markets and customer base.

ams leverages its market-leading expertise in sensor solutions, optical and imaging technologies through its strategy of focusing on long-term attractive sensing markets, particularly in the optical field. This creates a broadening spectrum of growth opportunities across the consumer, automotive, industrial and medical markets which ams anticipates to expand significantly following the expected addition of the OSRAM business.

Building on its technical excellence, ams expects to benefit from upcoming sensing applications in smartphones and other mobile devices and the expanding use of advanced sensor technologies in automotive, industrial, and medical applications.

11. Other Information

Regarding information concerning equity and investments please refer to the notes of the financial statements.

Premstaetten, February 24, 2020

ams AG, Premstaetten

Alexander Everke Chairman of the Management Board CEO	Dr. Thomas Stockmeier Member of the Management Board COO	Michael Wachsler-Markowitsch Member of the Management Board CFO	Mark Hamersma Member of the Management Board CBO

Consolidated Income Statement

acc. to IFRS January 1, 2019 until December 31, 2019

in thousands of EUR	Note	2019	2018
Revenues	2	1,885,265	1,426,306
Cost of sales	4	-1,162,327	-1,038,386
Gross profit		**722,938**	**387,920**
Research and development	4	-261,180	-239,064
Selling, general and administrative	4	-174,968	-142,098
Other operating income	3	62,537	10,388
Other operating expense	4	-18,765	-3,747
Result from investments in associates	14	-1,846	-514
Result from operations		**328,716**	**12,885**
Finance income	5	48,331	130,926
Finance expenses	5	-61,278	-52,483
Net financing result		**-12,946**	**78,443**
Result before tax		**315,769**	**91,328**
Income tax result	6	-15,953	2,088
Net result		**299,816**	**93,416**
Basic Earnings per Share in EUR	24	3.74	1.14
Diluted Earnings per Share in EUR	24	3.64	0.61

Consolidated Statement of Comprehensive Income

acc. to IFRS from January 1, 2019 until December 31, 2019

in thousands of EUR	Note	2019	2018
Net result		**299,816**	**93,416**
Items that will never be reclassified to profit and loss (after income taxes)	6		
Remeasurements of defined benefit liability	21	-2,867	2,115
FVOCI equity instruments - net change in fair value	25	65,854	250
Items that may be reclassified to profit and loss (after income taxes)	6		
FVOCI debt instruments - net change in fair value		0	-501
Exchange differences on translating foreign operations	22	28,050	83,146
Other comprehensive income		**91,037**	**85,010**
Total comprehensive income		**390,853**	**178,426**

Consolidated Balance Sheet

acc. to IFRS as of December 31, 2019

in thousands of EUR	Note	Dec. 31, 2019	Dec. 31, 2018
Assets			
Cash and cash equivalents	7	500,414	625,158
Trade receivables	8	201,892	121,015
Inventories	9	210,178	309,924
Other receivables and assets	10	129,696	38,021
Assets held for sale	27	86,097	0
Total current assets		**1,128,277**	**1,094,117**
Property, plant and equipment	11	1,130,078	1,206,516
Intangible assets	12	1,127,974	1,221,635
Rights of use	13	122,820	0
Investments in associates	14	27,878	2,960
Deferred tax assets	15	8,548	16,333
Other long term assets	16	1,803	7,327
Financial assets	16	886,033	35,645
Total non-current assets		**3,305,134**	**2,490,416**
Total assets		**4,433,412**	**3,584,534**
Liabilities and shareholders' equity			
Liabilities			
Interest-bearing loans and borrowings	17	781,594	220,022
Trade liabilities		135,461	175,887
Income tax liabilities		19,649	16,455
Provisions	18	112,711	80,673
Other liabilities	19	153,396	55,552
Liabilities in regard to assets held for sale		1,336	0
Total current liabilities		**1,204,147**	**548,589**
Interest-bearing loans and borrowings	17	1,300,597	1,599,013
Employee benefits	21	48,981	40,319
Deferred tax liabilities	15	62,612	65,666
Other long-term liabilities	19	127,407	37,193
Total non-current liabilities		**1,539,598**	**1,742,191**
Shareholders' equity			
Issued capital	22	84,420	84,420
Additional paid-in capital	22	719,056	709,958
Treasury shares	22	-134,133	-118,462
Other reserves	22	9,902	-18,148
Retained earnings		1,010,423	635,986
Total shareholders' equity and reserves		**1,689,667**	**1,293,754**
Total liabilities and shareholders' equity		**4,433,412**	**3,584,534**

Consolidated Statement of Cash Flows

acc. to IFRS from January 1, 2018 until December 31, 2018

in thousands of EUR	Note	2019	2018
Operating activities			
Result before tax		315,769	91,328
Depreciation (net of government grants)	11, 12, 13	280,205	212,600
Depreciation on assets held for sale	27	12,950	0
Expense from stock option plans (acc. to IFRS 2)	4	32,998	16,613
Changes in other long-term liabilities		3,920	768
Result from sale of plant and equipment	3, 4	708	-106
Result from sale of financial assets	5	0	-57
Result from investments in associates		1,846	514
Net financing cost	5	12,946	-78,386
Change in provisions and employee benefits		41,021	36,245
Result from sale of discontinued business units	3	-51,815	0
Changes in inventories		86,904	-49,461
Changes in trade and other receivables		-80,083	173,187
Changes in trade and other payables		-3,335	-76,632
Income taxes paid		-8,368	-11,205
Cash flows from operating activities		**645,667**	**315,409**
Investing activities			
Acquisition of intangibles, property, plant and equipment		-181,600	-412,943
Acquisition of subsidiary, net of cash acquired	1	-8,099	-24,803
Acquisition of other financial investments	23, 27	-809,862	-3,264
Proceeds from sale of plant and equipment		245	40
Proceeds from the sale of discontinued business area		26,671	0
Proceeds from the sale of discontinued business units	3	51.582	0
Proceeds from sale of financial assets		0	23,090
Interest received		6,638	3,213
Cash flows from investing activities		**-914,426**	**-414,667**
Financing activities			
Proceeds from borrowings		571,971	329,448
Repayment of borrowings		-238,677	-316,900
Repayment of finance lease liabilities		-19,267	-77
Proceeds from issue convertible bond		0	612,000
Buyback of convertible bonds		-72,432	0
Acquisition of treasury shares		-31,153	-185,834
Sale of treasury shares		4,335	11,970
Interest paid		-22,875	-16,536
Transaction costs from loans	23	-48,840	0
Dividends paid		0	-27,575
Cash flows from financing activities	**26**	**143,061**	**406,495**
Change in cash and cash equivalents		-125,698	307,237
Effects of changes in foreign exchange rates on cash and cash equivalents		955	-2,410
Cash and cash equivalents pledged as security	23	0	31,975
Cash and cash equivalents at begin of period		625,158	288,356
Cash and cash equivalents at end of period	**7**	**500,414**	**625,158**

Consolidated Statement of Changes in Shareholders' Equity

acc. to IFRS from January 1, 2019 until December 31, 2019

	Issued capital	Additional paid-in capital	Treasury shares	Other reserves	Retained earnings	Total share-holders' equity
Total equity as of January 1, 2018	**84,420**	**577,592**	**-190,812**	**-211,399**	**568,281**	**828,082**
Net result	0	0	0	0	93,416	93,416
Remeasurement of defined benefit liability	0	0	0	0	2,115	2,115
Valuation of financial instruments	0	0	0	0	-251	-251
Exchange differences on translating foreign operations	0	0	0	83,146	0	83,146
Comprehensive income	**0**	**0**	**0**	**83,146**	**95,280**	**178,426**
Share based payments	0	-5,275	0	0	0	-5,275
Dividends paid	0	0	0	0	-27,575	-27,575
Optionright convertible bond	0	93,570	0	0	0	93,570
Capital increase	0	53,682	0	0	0	53,682
Commitment for share buyback	0	-9,610	-75,227	110,104	0	25,266
Purchase of treasury shares	0	0	-185,834	0	0	-185,834
Sale of treasury shares	0	0	333,412	0	0	333,412
Total equity as of December 31, 2018	**84,420**	**709,958**	**-118,462**	**-18,148**	**635,986**	**1,293,754**
Net result	0	0	0	0	299,816	299,816
Remeasurement of defined benefit liability	0	0	0	0	-2,867	-2,867
Valuation of financial instruments	0	0	0	0	65,854	65,854
Exchange differences on translating foreign operations	0	0	0	28,050	0	28,050
Comprehensive income	**0**	**0**	**0**	**28,050**	**362,803**	**390,853**
Share based payments	0	20,888	0	0	0	20,888
Buyback convertible bond	0	-11,791	0	0	11,634	-156
Purchase of treasury shares	0	0	-31,153	0	0	-31,153
Issue of treasury shares	0	0	15,481	0	0	15,481
Total equity as of December 31, 2019	**84,420**	**719,056**	**-134,133**	**9,902**	**1,010,423**	**1,689,667**

Notes to the Consolidated Financial Statements

1. Significant Accounting Policies

ams AG ("the Company") is a company located in 8141 Premstaetten, Austria. The Company is a global leader in the design, manufacture and sale of high performance analog and analog intensive mixed signal integrated circuits, some of which are manufactured to customer specific applications, as well as sensor solutions mainly for optical, imaging and audio sensor solutions. The consolidated financial statements for the year ended December 31, 2019 represent the parent company ams AG and its subsidiaries (together referred to as the "Group").

On February 24, 2020 the consolidated financial statements according to IFRS as of December 31, 2019 were completed and released for approval by the Supervisory Board.

(a) Statement of Compliance

The consolidated financial statements comply with International Financial Reporting Standards as issued by the International Accounting Standards Board (IASB) and all obligatory interpretations as issued by the International Financial Interpretations Committee. Furthermore these consolidated financial statements are in accordance with the International Financial Reporting Standards as to be applied in the European Union as per the business year 2019, as well as additional requirements relating to §245a UGB.

New or amended standards and interpretations that have been applied for the first time during the business year:

Standard	Content	Initial application IASB[1)]	Initial application EU[2)]
New standards and interpretations			
IFRS 16	Leases	January 1, 2019	January 1, 2019
IFRIC 23	Uncertainty over income tax treatments	January 1, 2019	January 1, 2019
Amended standards and interpretations			
IFRS 9	Prepayment Features with Negative Compensation	January 1, 2019	January 1, 2019
IAS 28	Long-term Interests in Associates and Joint Ventures	January 1, 2019	January 1, 2019
IAS 19	Plan Amendment, Curtailment or Settlement	January 1, 2019	January 1, 2019
Annual improvements (2015-2017 cycle)	Various Amendments to IFRS 3, IFRS 11, IAS 12 and IAS 23	January 1, 2019	January 1, 2019

1) Standards to be applied for financial years which begin on or after the effective date according to the respective pronouncements of the International Accounting Standards Board.
2) The IFRS are to be applied for business years that begin on or after the effective date according to the respective EU regulation.

IFRS 16 Leases

IFRS 16 establishes a comprehensive framework for determining the accounting treatment of leases (rental relationships). IFRS 16 replaces the existing lease guidance, including IAS 17 Leases, IFRIC 4 Determining whether an Arrangement contains a Lease, SIC-15 Operating Leases - Incentives and SIC-27 Evaluating the Substance of Transactions Involving the Legal Form of a Lease.

IFRS 16 introduces a single accounting model that requires leases to be recognized in the lessee's balance sheet. A lessee recognizes a right of use that constitutes his right to use the underlying asset and a liability arising from the lease for the obligation to pay the lease. The right of use is subsequently amortised over the expected term of the contract. The payment of the lease obligations is split into a reduction of the lease liability and an interest portion recognized under financial expenses. The first-time application was based on the modified transitional regime as of January 1, 2019.

ams has identified all leasing contracts existing in the Group at the date of first-time application that were previously classified as operating leases and determined the corresponding carrying amounts. ams uses of the exemptions for short-term rental contracts (rental period <12 months) and for rental contracts for low-value items (value < USD 5,000).

The lease liabilities correspond to the present value of the future lease payments for the remaining term of the lease, taking into account the exercise of extension and withdrawal options, applying the marginal interest rate on borrowed capital relevant for the respective lease agreement on the balance sheet date. The right of use is measured at the amount of the lease liability, adjusted for deferred lease payments.

ams shows the right of use separately as a separate balance sheet item. The leasing liability is shown under other liabilities (current and non-current).

In thousands of EUR	January 1, 2019
Right of use Assets	68,294
Lease liability	67,145

The right of use assets amounting to EUR 68,294 thousand comprises EUR 64,047 thousand for land and buildings (offices, production buildings or warehouses) and EUR 4,247 thousand for other equipment and assets (vehicles and other items).

The average marginal borrowing rate is 2.37 % p. a. for determining the present value of the lease liability.

The lease liability is derived from the operating lease obligations reported in the consolidated financial statements as of December 31, 2018 as below:

In thousands of EUR	
Operating lease commitments as of 31 December 2018	**80,929**
Discounted using the borrowing rate as of 1 January 2019	72,786
Finance lease obligations as of December 31, 2018	107
- Application of the simplification rules	-4,137
- Deferrals from previous periods	-1,149
Lease liability as of January 1, 2019	67,145

Due to the application of IFRS 16, amortization of rights of use amounting to EUR 19,453 thousand and interest expenses for lease liabilities amounting to EUR 2,117 thousand were recognized in the current reporting period.

IFRIC 23 Uncertainty over income tax treatment

IFRIC 23 clarifies the accounting treatment of uncertainties relating to income tax risks. An item must be recognized in the financial statements if the entity concludes that it is not probable that the competent tax authority will accept the chosen tax treatment. The enterprise must also assume that the tax authority will assess the tax treatment and has full knowledge of all relevant information. IFRIC 23 has no material impact on the consolidated financial statements of ams.

Already published but not yet mandatory standards, amended or new standards that could be relevant for the group:

Standard/Interpretations	Content	Initial application IASB[1]	Initial application EU[2]
Amended standards and interpretations			
IFRS 9, IAS 39, IFRS 7	Interest rate benchmark reform	January 1, 2020	
IAS 1 and IAS 8	Definition of Material	January 1, 2020	January 1, 2020
IFRS 3	Plan Amendment, Curtailment or Settlement Definition of a Business	January 1, 2020	
IFRS Conceptual Framework	Changes to the references to the framework	January 1, 2020	January 1, 2020

The amendments or new versions of standards and interpretations listed in the table are not voluntarily applied in advance. The changes and the expected effects of the future first-time application of these new standards are not material for the consolidated financial statements of the Group.

(b) Basis of Preparation

The financial statements are presented in EUR and rounded to the nearest thousand. The use of automated calculation systems may lead to rounding differences in totals of rounded amounts and percentages.

With the exception of the following material items, individual assets are valued on the basis of historical production and acquisition costs:

- Certain financial assets: fair value
- Derivative financial instruments are stated at their fair value
- Employee benefits: fair value of the defined benefit liability (or asset)
- Share-based payments: fair value
- Accruals: Present value of expected future cashflows

[1] Standards to be applied for financial years which begin on or after the effective date according to the respective pronouncements of the International Accounting Standards Board.
[2] The IFRS are to be applied for business years that begin on or after the effective date according to the respective EU regulation.

(c) Basis of Consolidation

(i) Subsidiaries
Subsidiaries are all companies that are under the controlling influence of the Company. Control exists when the Company is exposed to (has rights to) variable returns from its involvement with the investee, and has the ability to affect those returns through its power over the subsidiary. The financial statements of the subsidiaries are included in the consolidated financial statements from the date that control commences until the date that control ceases.

Comments on the local financial statements of subsidiaries: A local audit of the subsidiary ams R&D UK Ltd. and ams Sensors UK Ltd. as well as Incus Laboratories Ltd. was waived. All members agree to the exemption in accordance with section 479A of the UK Companies Act 2006. For ams Sensors Germany GmbH the facilities according to §264 par 3 HGB Germany are utilized for the year 2019 (as well as for year 2018).

(ii) Business combinations
The acquisition method is used for all business combinations, at the time the Company obtained control. The value of the consideration transferred as well as the identifiable assets acquired and the liabilities assumed are generally measured at fair value. If the fair value is higher than the assets acquired a goodwill is indicated. This is tested for impairment annually and whenever there are indicative signs of impairment in accordance with IAS 36. If a gain arises from an acquisition at a price below fair value, this is recognized immediately in profit or loss. Acquisition related costs are recognized in profit or loss immediately. All contingent consideration are recognized at fair value, subsequent changes are recognized in profit or loss.

There were no business combinations in the 2019 financial year. The cash outflow in the amount of EUR 8,099 thousand relates to the subsequent payment obligation in connection with KeyLemon S.A. acquired in 2018.

(iii) Transactions eliminated on consolidation
Intra-group balances and transactions, and any results from intra-group transactions, are eliminated in preparing the consolidated financial statements.

(iv) 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 interest 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.

(v) Investments in associates
Investments in associates are accounted using the equity method if the company has a significant influence on the investee (associate), but does not have control or joint control.
Under the equity method, on initial recognition the investment in an associate or a joint venture are recognized at cost including all transaction costs. After the initial recognition the consolidated profit or loss includes the share of the profit or loss of the investee until the significant influence ceases. If there are any indications that an investment may be impaired and the carrying amount is less than the recoverable amount an impairment loss has to be recognized as an expense. If a favorable change of the recoverable amount occurs, a reversal of the recognized impairment loss is possible in the future.

(d) Foreign Currency

(i) Foreign currency transactions
Transactions in foreign currencies are translated into EUR at the average foreign exchange rate at the date of the transaction.

Monetary assets and liabilities denominated in foreign currencies at the balance sheet date are translated into EUR at the foreign exchange rate at that date and provided from the ECB (European Central Bank). Foreign exchange rate differences are recognized in the income statement.

(ii) Financial statements of economic independent foreign entities
The functional currency of the mother company is the Euro (EUR). The functional currency of entities domiciled outside the EUR zone is their respective domestic currency or US Dollar (USD).

Accordingly, the assets and liabilities of these entities including acquisition related goodwill from subsidiaries outside the Eurozone are translated into EUR at the average foreign exchange rates at the balance sheet date. Revenues and expenses of foreign entities are translated into EUR at the average foreign exchange rates of the year. Translation differences are recognized directly within other comprehensive income.

In the case of loss of control the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal.

(iii) Net investment in a foreign operation
If settlement of a monetary item receivable from or payable to a foreign subsidiary is neither planned nor likely to occur in the foreseeable future, then foreign currency differences arising from such item form part of the net investment in the foreign operation. Accordingly such differences are recognized in OCI and accumulated in the translation reserve.

In the case of loss of control the cumulative amount in the translation reserve related to that foreign operation is reclassified to profit or loss as part of the gain or loss on disposal.

(e) Property, Plant and Equipment

(i) Owned assets
Items of property, plant and equipment are stated at cost less accumulated depreciation and impairment losses and net of government grants. The cost of internally generated assets includes the cost of materials, direct labor, directly attributable proportion of production overheads and borrowing costs for qualified assets.

(ii) Depreciation
Depreciation on property, plant and equipment is charged to the income statement on a straight-line basis over the estimated useful life of the assets. Land is not depreciated. The estimated useful life is as follows:

Buildings	15 – 40 years
Plants, technical equipment and machines	4 – 12 years
Other equipment	4 – 10 years

Due to the application of the cost of sales method the annual depreciation is distributed over all cost positions.

(iii) Asset restoration obligation
For rented buildings in some cases an obligation exists to return the rented object to the lessor in the original state existing at the date of lease inception (asset restoration obligation).
The projected cost of restoration is recognized as part of the cost of plant and equipment as well as a provision for the asset restoration obligation.

Provision for restoration costs is measured at the present value of the expenditure expected to be required to settle the obligation using a pre-tax discount rate that reflects the current market assessment of the time value of money and the risks specific to the obligation. The increase in the provision due to the passage of time is recognized in the statement of comprehensive income as finance expense. Changes in the estimated amount of the expenditure lead to an adjustment of the recognized cost of plant and equipment.

(f) Intangible Assets

(i) Intangible assets acquired by the Group
Intangible assets, which are acquired by the Group, are stated at cost less accumulated amortization and impairment losses. The goodwill arising out of business combinations is recognized at cost less accumulated impairment losses.

(ii) Amortization
Amortization of intangible assets is charged to the income statement on a straight-line basis over the estimated useful economic life of the assets, unless it is not an intangible asset with indefinite useful lives or goodwill. The estimated useful life is as follows:

Patent and licenses	5 years
Customer base	7 – 18 years
Technology	5 – 15 years

Due to the application of the cost of sales method the annual depreciation is distributed over all cost positions. All intangible assets, with the exception of non-depreciable intangible assets such as goodwill, have a definite useful life.

(iii) Research and Development
Expenditures on research activities, expecting to gain new scientific or technical knowledge and understanding, are expensed as incurred and are recognized as expenses for Research and Development.

Development expenditures are capitalized only if the expenditure can be measured reliably, the product or process is technically and commercially feasible, future economic benefits are probable and the Company intends to and has sufficient resources to complete development and to use or sell the asset. Other expenses for Research & Development are recognized in profit or loss as incurred. Subsequent to initial recognition, development expenditure is measured at cost less accumulated amortization and any accumulated impairment loss. Therefore the group recognized development costs amounting to EUR 38,288 thousand (2018: EUR 43,336 thousand) as addition to the intangible assets during the business year 2019.

(g) Assets from Leasing/Rental Relationships

If the Group enters into rental or lease agreements, it recognizes a lease liability in the amount of the present value of the future lease payments and a right of use for the leased asset in the same amount. The lease liabilities correspond to the present value of future lease payments for the remaining term of the contract, taking into account the exercise of extension and withdrawal options. The interest rate applied is determined on the balance sheet date taking into account the risks specific to the object, the Group's marginal borrowing costs and the term of the contract.

The right of use is measured at the amount of the lease liability, adjusted for deferred lease payments. The right of use is subsequently amortized over the expected term of the lease. The payment of the lease instalments is divided into a reduction of the lease liability and an interest portion recorded under financial expenses.

The Group uses relief provisions for short-term leases (lease term less than one year) and leases of minor value (value less than USD 5,000).

(h) Financial Instruments

(i) Recognition and Measurement
Financial assets and financial liabilities are recognized at the date on which they arise. For purchases or sales of financial assets at market rates, which are either measured at amortized cost or at fair value through profit or loss, they are initially recognized on the settlement or value date. Derivative financial instruments and non-derivative financial instruments that are measured at fair value through profit or loss are initially recognized on the value date.

A financial asset (other than a trade receivable) or a financial liability is initially measured at fair value. Financial assets and financial liabilities are either interest-bearing items or items whose value is measured financially. An item that is not measured at FVTPL will incur transaction costs directly attributable to its acquisition or issuance. Trade receivables are initially valued at the transaction price.

(ii) Classification and subsequent assessment
Upon initial recognition, a financial asset is allocated to the following classes:

- At amortized cost
- FVOCI debt instruments (investments in debt instruments that are measured at fair value with changes in other comprehensive income)
- FVOCI equity instruments (equity investments measured at fair value with changes in other comprehensive income)
- FVTPL (at fair value with changes in profit or loss)

Financial assets are not reclassified after initial recognition unless the Group changes its business model to manage its financial assets. In this case, all affected financial assets are reclassified on the first day of the reporting period following changes in the business model.

A financial asset is measured at amortized cost if both of the following conditions are met and it has not been designated as FVTPL:

- It is held as part of a business model whose objective is to hold financial assets to collect the contractual cash flows
- The terms and conditions of the financial asset give rise to payment flows at fixed dates, which represent only repayments and interest payments on the principal amount outstanding

A debt instrument is designated as FVOCI if both of the following conditions are met and it has not been designated as FVTPL:

- It is held within the framework of a business model whose objective is both to hold financial assets for the collection of contractual cash flows and in the sale of financial assets, and
- Its terms and conditions lead to payment flows at fixed dates which are solely payments of principal and interest on the outstanding principal amount

Upon initial recognition of an equity investment that is not held for trading, the Group may irrevocably choose to recognize subsequent changes in fair value through other comprehensive income. This choice is made on a case-by-case basis for each investment. All financial assets that are not measured at amortized cost or FVOCI are valued at FVTPL. This includes also all derivative assets. The classification of whether the Group designates an equity instrument as FVTPL or FVOCI is based on an individual assessment of each transaction. For transactions with particularly high strategic significance, the FVOCI classification is generally chosen.

For those financial assets allocated to the individual valuation categories, the following rules apply to the subsequent valuation and to the recording of profits and losses:

Classification	Method of valuation
Financial assets at FVTPL	These assets are measured at fair value. Net gains and losses, including interest or dividend income, are recognized in profit or loss.
Financial assets at amortized cost	These assets are subsequently measured at amortized cost using the effective interest method. The amortized cost is reduced by impairment losses. Interest income, foreign exchange gains and losses and impairments are recognized in profit or loss. Likewise, a gain or loss arising on derecognition is recognized in the income statement.
Debt instruments at FVOCI	These assets are measured at fair value. Interest income calculated using the effective interest method, foreign exchange gains and losses and impairments are recognized in profit or loss. Other net gains or losses are recognized in other comprehensive income. Upon derecognition, the accumulated other result is reclassified to the income statement. In 2019, this resulted in valuation effects of EUR 0 thousand (2018: EUR -501 thousand).
Equity investments at FVOCI	These assets are measured at fair value. Dividends are recognized as income in the income statement unless the dividend is to cover part of the cost of the investment. Other net gains or losses are recognized in other comprehensive income and are never reclassified to profit or loss. In 2019, this resulted in valuation effects of EUR 65,854 thousand (2018: EUR 250 thousand).

Financial liabilities are measured at amortized cost or at fair value through profit or loss (FVTPL). A financial liability is classified as FVTPL if it is held for trading, if it is a derivative or if it is designated as such at initial recognition. Financial liabilities at FVTPL are measured at fair value. Any resulting net gains or losses, including interest expense, are recognized in the income statement. Other financial liabilities are subsequently measured at amortized cost using the effective interest method. Interest expenses and foreign currency translation differences are recognized in the income statement. Gains or losses on derecognition are also recognized in the income statement.

(iii) Derecognition
The Group derecognizes a financial asset when the contractual rights to cash flows from the financial asset expire or it transfers the rights to receive the cash flows in a transaction that also transfers all material risks and rewards of ownership of the financial asset. A derecognition also occurs if the Group neither transfers nor retains all material risks and rewards of ownership and does not retain control over the transferred asset.

The Group derecognizes a financial liability if the contractual obligations have been met, canceled or expired. The Group also derecognizes a financial liability if its terms of contract are changed and the cash flows of the adjusted liability are significantly different. In this case, a new financial liability is recognized based on the adjusted conditions at fair value. When derecognizing a financial liability, the difference between the carrying amount of the redeemed liability and the consideration paid is recognized in the income statement.

(iv) Impairment
The Group recognizes impairment losses on expected credit losses (ECL) on the following financial assets:

- Financial assets that are measured at amortized cost
- Debt instruments valued at FVOCI

The Group measures the impairment losses over the life of the loan, except for the following allowances, which are measured at the expected 12-month credit loss:

- Bonds with a low default risk at the balance sheet date
- Other debt securities and bank deposits where the default risk has not significantly increased since the initial recognition

Value adjustments for trade receivables are always measured in the amount of the expected credit loss.

The Group assumes that the default risk of a financial asset has increased significantly if a financial asset is more than 30 days past due, an asset disappears from an active market and it is probable that insolvency and restructuring proceedings will be initiated against borrowers or there are other indicators of a significant increase in the default risk. The Group considers a financial asset to have defaulted if insolvency proceedings have been opened or if there are other significant reductions in liquidity. For probability of default the Group considers 20% and nine months overdue as significant.

The expected credit losses are generally measured as the present value of the probability-weighted estimates of defaults, discounted using the effective interest rate of the financial asset. Loans and advances to banks and cash and cash equivalents are measured using the expected credit losses on publicly available ratings. For trade receivables, the expected credit losses are measured using an impairment matrix based on experience.

The gross carrying amount of a financial asset is impaired if the Group no longer believes that the financial asset can be fully or partially realized.

(i) Derivative Financial Instruments and Hedge Accounting

The Group used derivative financial instruments during the year to reduce its financial exposure to operating financing and investing activities. In addition, the conversion option for the issued convertible bonds represents a derivative financial instrument.

Derivatives are initially measured at fair value. As part of the subsequent valuation, derivatives are measured at fair value. Any resulting changes are recognized in the income statement.

As not all of the criteria for hedge accounting in IFRS 9 are met, the Group does not apply hedge accounting as defined by IFRS 9.

Derivative financial instruments with positive fair values are reported under other receivables and assets and derivative financial instruments with negative fair values under other liabilities.

During the fiscal year 2017, the Company issued a convertible bond in USD which gives the bond-holders an option to purchase shares at a fixed price instead of repaying the redemption amount. This option is measured at fair value. For further information, please refer to Note 17. Regarding the fair value please refer to Note 20.

In fiscal year 2018, the Company issued a convertible bond in EUR, giving the holders of the bond an option to purchase shares at a fixed price instead of repaying the redemption amount. This option is recognized under equity amounting to the fair value at the grant date and is not remeasured. For further information see Note 17. For fair value see Note 20.

(j) Inventories

Inventories are stated at the lower of cost and net realizable value. Net realizable value is the estimated selling price in the ordinary course of business, less the estimated costs of completion and selling expense.

The cost of inventories is based on the moving average price formula and includes expenditures incurred in their acquisition as well as bringing them to their existing location and condition. For manufactured inventories and work in progress, cost includes an appropriate share of overhead based on normal operating capacity.

(k) Equity

Issued capital is the fully paid-in capital of ordinary shares (bearer shares).

Directly attributable costs regarding issue or repurchasing of shares are, considering tax effects, deducted from equity. If shares are bought back, the amount paid, including the directly attributable costs, will be deducted from equity as own shares. If treasury shares are sold later or issued again, the income including any difference to the carrying amount has to be recognized under equity.

(l) Impairment of Non-Financial Assets

At each balance sheet date the Group is required to assess whether there is any objective evidence of impairment. Therefore assets are grouped at the lowest levels for which there are separately identifiable cash flows (cash-generating units), that are largely independent of cash inflows from either assets or cash-generating units. Goodwill acquired in a business combination shall be allocated to each of the cash-generating units or groups of cash-generating units that are expected to benefit from the synergies of the combination. If there is an indication of a value impairment the recoverable amount of the asset or cash-generating unit is determined. At each balance sheet date the recoverable amount of intangible assets with an indefinite useful life and intangible assets not yet available for use is estimated. An impairment loss shall be recognized if the carrying amount of the asset or cash-generating unit, to which independent results can be attributed, exceeds the recoverable amount. An impairment loss is recognized in profit or loss.

(i) Calculation of recoverable amount
The recoverable amount is the higher value of their fair value less transaction costs or as the present value of expected future cash flows and value in use. In assessing value in use, the estimated future cash flows are discounted to their present value using a pre-tax discount rate that reflects current market rates of the time value of money and the risks specific to the asset. For assets that do not generate cash inflows largely independent of those from other assets, the recoverable amount is determined for the cash-generating unit to which the asset belongs. Goodwill acquired in a business combination shall be allocated to each of the cash-generating units, or groups of cash-generating units, that is expected to benefit from the synergies of the combination.

(ii) Reversals of impairment
An impairment loss recognized for an asset shall be reversed if there has been a change in the estimates used to determine the asset's recoverable amount. An impairment loss recognized for goodwill shall not be reversed.

An impairment loss is only reversed 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, when they are classified as held for sale.

(m) Non-Current Assets Held for Sale

Non-current assets or disposal groups, including assets and liabilities, are classified as held for sale if its carrying amount will be recovered principally through a sale rather than through continuing use. These non-current assets or disposal groups are recognized at the lower of its carrying amount and fair value less cost to sell. On initial recognition an impairment loss or reversal has to be recognized in the profit or loss. As soon as the intangible asset or property, plant and equipment are classified as held for sale they are no longer depreciated or amortized. Investments in associates are no longer recognized with the equity method.

(n) Employee Benefits

(i) Defined benefit plans
According to Austrian labor regulations, employees who joined the Company prior to December 31, 2002, are entitled to receive severance payments – depending on the job tenure - equal to a multiple of their monthly compensation, which comprises fixed plus variable amounts such as overtime and bonus payments. Maximum severance is equal to a multiple of twelve times the eligible monthly compensation. All employees of the Swiss companies are covered by pension funds at pension fund providers, with benefit contributions made by employers and employees. Because employers and employees are charged a "restructuring contribution" in the event that the fund does not have sufficient assets to cover the employees' entitlements, IAS 19 identifies this system as a defined benefit plan. The obligation for such severance payments is measured using the projected unit credit method. The discount rate is the yield at the balance sheet date on AAA or AA credit-rated bonds that have maturity dates approximating the terms of the Group's obligations. The assumptions for discount rates, salary increase and fluctuation used to calculate severance and pension provisions vary according to the country's economic situation. Life expectancy is calculated according to the respective country's mortality tables. Remeasurements of the defined benefit liability are recognized in other comprehensive income.

The conditions applied to calculate the severance and pension provisions for discounting, pay rises and fluctuation vary from country to country depending on the economic situation.

The defined benefit plans expose the Group to actuarial and financial risks such as longevity risk, currency risk, interest rate risk and investment risk.

(ii) Defined contribution plans
For all Austrian based employees who entered into an employment contract after December 31, 2002, the Company is obliged to contribute 1.53 % of their monthly remuneration to an employee benefit fund. There is no additional obligation for the Company. Therefore, this plan constitutes a defined contribution plan. Contributions are recognized as an expense in the income statement as incurred. There are no further obligations for the Company.

(iii) Other long-term employee benefits
All Austrian employees under the collective agreement are eligible for jubilee payments. Under this plan, eligible employees receive a cash payment after a specified service period. This payment equals one to three months salary, depending on the number of years of service. The amount recognized as a liability from this compensation is measured using the projected unit credit method. Actuarial assumptions are identical to those applied for defined benefit plans. All actuarial gains and losses are recognized immediately. Remeasurements of the defined benefit liability are recognized in profit and loss.

(iv) Stock Option Plan
ams has introduced several stock option plans for employees and executives, under which a defined number of options to purchase ams shares to employees and officers are issued subject to compliance with specified terms.

The stock options issued are recognized at fair value at the grant date. The determined value of the options will be spread over the period until vesting. The amount recognized as expense is adjusted, if expectations regarding the settlement of service conditions and independent performance conditions change, in such a way as recognized expenses are based on the options, which fulfill the service conditions and the independent performance conditions at the end of the vesting period respectively. The fair values for market condition based stock option plans are determined on the grant date including these conditions; an adjustment of occurring differences between expected and actual results is not being recognized.

The options were measured based on option-pricing models. The interpretation of market information necessary for the estimation of market values also requires a certain degree of subjective judgement. The expected volatilities were extrapolated from the historical stock-exchange price of the ams share (source: Bloomberg). This can result in a difference between the figures shown here and values subsequently realized on the marketplace.

(o) Provisions

A provision is recognized on the balance sheet when the Group has a legal or constructive obligation as a result of a past event, and it is probable that an outflow of economic benefits will be required to settle the obligation. If the effect is material, 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, where appropriate, the risks specific to the liability.

(i) Warranties
A provision for warranties is recognized when a warranty claim is received from a customer.

A provision for expected but not yet known warranties is not recognized because a sufficiently reliable estimate of the amount is not possible. The amount recognized for known warranty claims is the best estimate of the expenditure required to settle the claim based on historical experience.

(ii) Onerous contracts
A provision for onerous contracts is recognized when the expected benefits to be derived by ams from a contract are lower than the unavoidable cost of meeting its obligations under the contract.

(p) Trade and Other Payables

Trade and other payables are stated at amortized historical cost.

(q) Revenue from Contracts with Customers

The key sales of ams originate from the production and delivery of products in the consumer and non-consumer - segment as well as in the manufacture of products according to specific customer specifications ("Foundry").

Insofar as individual products can be used by several customers, customers generally gain control over the products when they are sent to customers. At this point in time, the invoices will be issued and the revenue is recognized. The transaction price for sales includes both fixed and variable price components. ams takes into account possible price adjustments due to contractual agreements, volume discounts, refunds and other price reductions.

For custom products in the Consumer, Non-Consumer and Foundry sectors, the products are typically manufactured based on customer pre-information and ordering, often based on existing framework agreements. The power of disposal over the products then passes to the customer, if an unconditional order is present and ams is - in case of a contract cancelation on the part of the customer - also entitled to the compensation of the incurred costs including an adequate margin. Then, revenue is to be recognized at the time of existence of these facts according to the stage of completion, which is determined using the cost-to-cost method. The invoices are usually issued according to the contractual agreements with delivery of the products. For longer production periods, ams issues partial invoices.

Work already carried out with the customer within the scope of the respective contract is reported as contractual assets, within inventory. Variable purchase price components and contract costs are insignificant within the customer contracts.
Due to the short lead time in the production of the products and the often relatively short-term binding orders made by the customers, there were no material instances as of January 1 and December 31, 2019, in which sales had to be recognized before the invoice or a partial invoice should have been issued.

(r) Government Grants

During the business year government grant was provided as R&D subsidy and R&D premium. The R&D premium is recognized as income under the item research and development expenses. If the grants are related to capitalized project costs they are according to the net method deducted from the initial costs. R&D subsidies are recognized as other operating income.

(s) Net Financing Cost

The financial result includes payments for interest on loans, interest expenses from leasing contracts, interest income on investments and dividends, foreign exchange gains and losses as well as gains and losses from derivative financial instruments and results from the adjustment of contingent purchase price liabilities.

Interest income is recognized in the income statement as it accrues, taking into account the asset's effective yield. Dividend income is recognized in the income statement on the date that the dividend is declared.

All interest and other expenses in connection with loans are recognised in the income statement using the effective interest rate method. The interest expense portion of lease liabilities is also recognized in the income statement using the effective interest method.

Costs incurred in connection with the provision of a loan are recognized in the effective interest rate for the portion of a credit line used. The commitment fee for unused credit lines is amortised on a straight-line basis over the term of the financing commitment.

(t) Income Tax

Income tax on the profit for the year comprises current and deferred tax. Income tax is recognized in the income statement except to the extent that it relates to items recognized directly within other comprehensive income or income taxes directly related to acquisitions or equity instruments.

(i) Current tax
Current tax is the expected tax payable on taxable income for the year, using tax rates enacted at the balance sheet date and all adaptions concerning earlier years.

(ii) Deferred tax
Deferred tax is accounted for using the balance sheet liability method, providing for temporary differences between the carrying amounts of assets and liabilities for IFRS financial reporting purposes and the amounts used for tax purposes as well as for tax assets existing at the balance sheet date. Deferred tax assets and liabilities for temporary differences relating to investments in subsidiaries to the extent that they will probably not reverse in the foreseeable future are not recognized.

The amount of deferred tax provided is based on the expected manner of realization or settlement of the carrying amount of assets and liabilities, using tax rates enacted or substantially enacted at the balance sheet date.

A deferred tax asset is only recognized, when it is probable, based on current tax planning, that within a foreseeable period, future taxable results can be used against unused tax losses and unused tax credits. Deferred taxes are offset within the same taxable entity.

2. Segment Reporting and Revenues

Segment information is presented on the basis of the internal reporting structure for the segments "Consumer", "Non-Consumer" and "Foundry" and determined according to valuation and accounting regulations of IFRS. The segments "Consumer" and "Non-Consumer" comprise the development and distribution of analog Integrated Circuits ("ICs") and sensors. The segments' customers are mainly "Consumer" and for "Non-Consumer" from Industrial, Medical and Automotive markets. Within the "Foundry" segment we report manufacturing of analog/mixed signal ICs based on our customers' designs.

The segment measure "Result from operations" consists of gross profit, expenses for research and development, expenses for selling, general and administrative as well as other operating income and expenses.

Segment assets include only those assets that are directly attributable to the respective segment, such as customer receivables and segment-specific tangible and intangible assets as well as rights of use under leases. For this reason, assets that are used by several segments due to their equipment are not allocated to a segment.

Business Segments

in thousands of EUR				2019				2018
	Consumer	Non Consumer	Foundry	Total	Consumer	Non Consumer	Foundry	Total
Consolidated revenues	1,403,603	439,019	42,643	1,885,265	1,002,950	377,810	45,545	1,426,306
Research & development	119,413	99,396	1,641	220,450	107,150	100,520	1,382	209,053
Depreciation	113,341	4,529	67	117,937	80,271	4,188	79	84,538
Result from operations	179,498	42,054	10,934	232,486	-22,298	39,383	12,614	29,699
Segment assets	1,006,656	63,743	3,688	1,074,087	799,278	55,611	6,778	861,667

Reconciliation of segments results to income statement

in thousands of EUR	2019	2018
Result from operations per segment reporting	232,486	29,699
Result from investments in associates	-1,846	-514
Depreciation due to business combinations	-66,586	-70,048
Unallocated research and development costs	-17,661	-772
Depreciation on assets held for sale	-12,950	0
Result from sale of a discontinued business unit	51,815	0
Subsidies not recognized under research and development	3,694	4,814
Unallocated income	139,764	49,707
Result from operations	**328,716**	**12,885**

The unallocated income is mainly due to the difference between the budgeted exchange rate used in the segment reporting and the actual exchange rate.

Reconciliation of segment assets to total assets

in thousands of EUR	2019	2018
Assets per segment reporting	1,074,087	861,667
Intangible assets deriving from PPA	1,017,735	1,140,938
Property, plant and equipment	390,358	461,703
Inventories	210,178	309,924
Cash, cash equivalents and short-term investments	500,414	625,158
Deferred tax asset	8,548	16,333
Intangible assets	87,091	83,569
Rights of use for leases for administration and sales	13,435	0
Investments in associates	27,878	2,953
Financial assets	886,033	35,645
Assets held for sale	86,097	0
Accrual for financial transaction costs	95,491	0
Other assets	36,066	46,643
Total assets	**4,433,412**	**3,584,534**

Revenue by primary geographic segment

The geographic regions are structured by the three regions in which sales occur: "EMEA" (Europe, Middle East and Africa), "Americas" and "Asia/Pacific". In presenting information on the basis of geographical regions, segment revenue is based on the geographical billing location of customers.

in thousands of EUR	Consumer		Non-Consumer		Foundry		Total	
	2019	2018	2019	2018	2019	2018	2019	2018
EMEA	95,438	33,524	189,329	193,833	31,111	32,032	315,879	259,390
Americas	4,450	51,125	30,202	25,410	2,490	1,474	37,142	78,009
Asia / Pacific	1,303,714	918,301	219,488	158,568	9,042	12,039	1,532,244	1,088,907
	1,403,603	**1,002,950**	**439,019**	**377,810**	**42,643**	**45,545**	**1,885,265**	**1,426,306**

Revenues per country

in thousands of EUR	2019	2018
Taiwan	843,884	555,943
Japan	417,914	277,277
Germany	120,179	127,591
Hongkong	109,995	86,818
United Kingdom	108,995	29,764
China	86,531	64,592
Austria	1,123	836
Rest of the world	196,645	283,485
	1,885,265	**1,426,306**

Long-term assets per geographical segments

in thousands of EUR	2019	2018
Austria	1,374,243	1,466,831
Singapore	849,665	798,785
Switzerland	83,433	109,615
Other countries	73,531	52,920
	2,380,873	**2,428,151**

The highest revenues came from a direct customer (a distributor) in the Consumer segment in the amount of EUR 394,578 thousand (2018: EUR 365,046 thousand), which also accounts for more than 10% of total revenues.

3. Other Operating Income

in thousands of EUR	2019	2018
Government grants related to R&D expenses	5,740	5,907
Result from disposal of a discontinued business unit	51,815	0
Gain from reversal of allowances	0	445
Gain from disposal of assets	265	157
Insurance refunds	110	442
Other	4,608	3,436
	62,537	**10,388**

On December 23, 2019, the Group sold high-quality designs and assets for MEMS microphone interfaces to its customer Knowles Corporation. In this context, a profit of EUR 51,815 thousand was realized.

4. Expenses

Other operating expenses

in thousands of EUR	2019	2018
Expenses for monetary transactions	489	383
Allowance for bad debts	2,961	198
Contract penalties	0	1,915
Loss from disposal of assets	1,036	722
Depreciation on assets held for sale	12,950	0
Other	1,329	529
	18,765	**3,747**

Expenses by nature

in thousands of EUR	2019	2018
Changes in inventories of finished goods and work in progress	-54,877	48,200
Material expenses	-618,697	-629,129
Personnel expenses	-499,816	-447,691
Scheduled depreciation	-280,205	-212,600
Expenses for other third-party services	-113,218	-102,750
Other expenses	-31,662	-75,577
Sum of cost of sales, selling, general and administrative expenses as well as research and development costs	**-1,598,475**	**-1,419,548**

In 2019 the amount shown in the personnel expenses includes EUR 33,342 thousand (2018: EUR 18,687 thousand) for options under SOP 2011, SOP 2013, LTIP 2014, SSOP 2017 and SLTIP 2018, SSOP 2019 and LTIP 2019.

The average number of employees in 2019 was 8,811 (2018: 10,322).

Share-based payment
The Group uses stock options to remunerate the members of the Management Board and selected groups of executives under various performance-related stock compensation plans. Key information on the individual plans is as follows:

Stock Option Plan 2011
In connection with the acquisition of TAOS, the Company has committed to grant options to certain employees of TAOS – by issuing a Stock Option Plan, which – as far as legally possible - matches the number of options and the option plan which has been granted to those employees under the TAOS - "Equity Incentive Plan 2000". To fulfil this obligation, the management board of ams AG has adopted a new Stock Option Plan 2011 (SOP 2011), which the company's Supervisory Board approved on July 9, 2011.

Each option granted entitles each employee to purchase one share of the company. For holders of unvested options the exercise price equals the original exercise price under the TAOS plan. This price is in the range of USD 0.19 and USD 3.96.

Certain employees of TAOS, who held a small number of TAOS shares ("Small Shareholders"), were granted exercisable options for shares of the Company as compensation for shares of TAOS held by them prior to the transaction (vested options). The option exercise price for these options is CHF 8.27 which is the average of the market price of the shares of the Company on the SIX Swiss Exchange within 30 days following the date of grant of options.

The term of the unvested options will remain unchanged compared to the original TAOS plan. The options will expire between September 3, 2017 and June 8, 2021.

The options of the Small Shareholders expire ten years after the date of issuance, therefore on July 12, 2021.

The options developed as follows during the business year 2019 and 2018 respectively:

SOP 2011	2019		2019	
	Options	weighted average exercise price (in EUR)	Options	weighted average exercise price (in EUR)
outstanding at January 1	51,182	3.38	145,610	2.29
granted during the period	0	-	0	-
forfeited during the period	0	-	0	-
exercised during the period	13,407	2.74	94,428	2.40
expired during the period	2,565	-	0	-
outstanding at the end of the period	35,210	2.83	51,182	3.38
exercisable at the end of the period	35,210	2.83	51,182	3.38
not yet granted	0	-	0	-
weighted average share price at the date of exercise (in EUR)	42.06		89.77	
range of exercise prices (in EUR)	0.45-6.98		0.54-7.12	
remaining contractual life	from Sept. 3, 2017 until July 12, 2021		from Sept. 3, 2017 until July 12, 2021	

Stock Option Plan 2013
The management board has decided to adopt the Stock Option Plan (SOP 2013) on August 28, 2013.

The SOP 2013 comprises a maximum of 2,000,000 options, of which (i) up to 1,575,000 options may be granted to employees and executive employees and (ii) up to 235,000 options may be granted to the Chief Executive Officer and up to 190,000 options may be granted to the Chief Financial Officer of the management board. This corresponds to 2.8% of the nominal capital of the Company at that time. Each option entitles the participants to acquire one no-par value ordinary share of ams AG. The available options shall be granted during the year 2013 after prior resolution by the SOP committee. All options granted can only be exercised by June 30, 2021. The exercise price for the new shares corresponds to the average strike price within the last three months before the granting of the stock options.

Regarding the earliest date of exercise for exercising 50% of the granted options, these vest to the extent of 33% on the first, second and third anniversary of the granting.

The earliest date for exercising the other 50% granted options is the third anniversary of the options grant date depending on the achievements of the following criteria:

(i) The benchmark growth of the market (sales growth of the analog semiconductor market as published by WSTS) has to be surpassed in the period 2013-2015 with stable gross margins (not less than in 2012; adjusted for extraordinary time impacts in relation with a positive, long lasting development of the business like e.g. acquisition costs, financing costs etc.). If this does not apply to the whole period but to single calendar years, 1/3 of exercisability for the relevant year has to be taken into account.

(ii) Over the period 2013-2015 an increase of earnings per share has to be achieved. If this does not apply to the whole period but to single calendar years, an aliquot of 1/3 of exercisability for the relevant year has to be taken into account.

Any options reverted to the company can be issued under the options of the SOP 2013 until the end of the term.

The options developed as follows during the business year 2019 and 2018 respectively:

SOP 2013	2019		2018	
	Options	weighted average exercise price (in EUR)	Options	weighted average exercise price (in EUR)
outstanding at January 1	207,830	11.86	300,070	11.86
granted during the period	0	-	0	-
forfeited during the period	0	11,86	0	11.86
exercised during the period	9,460	11.86	92,240	11.86
expired during the period	0	-	0	-
outstanding at the end of the period	198,370	11.86	207,830	11.86
exercisable at the end of the period	198,370	11.86	207,830	11.86
not yet granted	0	-	0	-
weighted average share price at the date of exercise (in EUR)	42.82		89.78	
range of exercise prices (in EUR)	11,86		11.86	
remaining contractual life	Until June 30, 2021		until June 30, 2021	

Long Term Incentive Plan 2014
On October 17, 2014 a Long Term Incentive Plan (LTIP 2014) was adopted by the Supervisory Board and the Management Board.

The LTIP 2014 comprises a maximum of 5,124,940 options.

This corresponds to approximately 7% of the share capital of the Company at the time. Each option granted entitles each participant to purchase one share of ams AG for an exercise price of EUR 1. The available options were to be granted during the year 2014 after prior resolution by the LTIP committee. All granted options can be exercised no later than 10 years after the grant date. The exercise price for the new shares is EUR 1.

Issuance of the options is subject to the following criteria:

- Approval during annual general meeting,
- 50% of the options are depending on an increase of earnings per share over a period of three years compared to the earnings per share between 2013 and 2016,
- 50% of the options are depending on the comparison of Total Shareholder Returns over a period of 3 years to a defined benchmark of companies.

The earliest date for exercising is three years after granting and the LTIP committee's decision of meeting the criteria. The LTIP 2014 expired in 2019.

The main basis data of the options granted in 2019 and 2018 under the Longterm Incentive Plan 2014 structures as follows

Valuation of options (weighted average)

		2019	2018
Market price at granting	in EUR	-	63.77
Term of options	in years	-	3
Risk-free interest rate	in %	-	0.15
Dividend yield	in %	-	0.56
Expected volatility	in %	-	40.00
Present value of option	in EUR	-	47.83

The options developed in the fiscal years 2019 and 2018 as follows:

LTIP 2014	2019		2018	
	Options	weighted average exercise price (in EUR)	Options	weighted average exercise price (in EUR)
outstanding at January 1	2,050,729	1.00	1,904,881	1.00
granted during the period	0	1.00	470,990	1.00
forfeited during the period	0	-	0	-
exercised during the period	117,161	1.00	121,890	1.00
expired during the period	753,942	-	203,252	-
outstanding at the end of the period	1,179,626	1.00	2,050,729	1.00
exercisable at the end of the period	302,598	-	425,431	-
not yet granted	0		2,218,670	
weighted average share price at the date of exercise (in EUR)	40.20		71.32	
range of exercise prices (in EUR)	1.00		1.00	
remaining contractual life	until June 30, 2028		until June 30, 2028	

Special Stock Option Plan 2017
On June 9, 2017 a Special Stock Option Plan (SSOP 2017) has been adopted by the Supervisory board and management board. The SSOP 2017 is setup that is has been economically effective as of Jan 24, 2017.

The SSOP 2017 comprises a maximum of 2,400,000 options. This corresponds to approximately 3% of the share capital of Company at the time. Each option granted entitles each participant to purchase one share of ams AG for an exercise price of EUR 27.56. The available options have been granted once in 2017 after prior resolution by the LTIP committees. All granted options must be exercised by June 30, 2027.

The exercise of all options is subject to the following criteria:

- 30% of the options are subject to the criterion of meeting certain sales targets over a six-year period
- 30% of the options are subject to the criterion of meeting certain EBIT targets over a six-year period
- 40% of options are subject to the criterion of meeting certain net result targets over a six-year period

During the financial year 2018, the approval criteria of the Supervisory Board were canceled.

In each case, 17% of the options can be exercised after one, two, three, four and five years after allocation, in conjunction with the decision of the LTIP Committee on the achievement of the criteria for the respective year. The remaining 15% of the options may be exercised after six years of assignment, along with the decision of the LTIP Committee to meet the criteria of that year.

The options developed in the fiscal years 2019 and 2018 as follows:

SSOP 2017	2019		2018	
	Options	weighted average exercise price (in EUR)	Options	weighted average exercise price (in EUR)
outstanding at January 1	1,988,540	27.56	2,362,000	27.56
granted during the period	0	-	0	-
forfeited during the period	0	-	0	-
exercised during the period	18,620	27.56	321,920	27.56
expired during the period	11,880	-	51,540	-
outstanding at the end of the period	1,958,040	27.56	1,988,540	27.56
exercisable at the end of the period	449,260	-	0	-
not yet granted	38,000	-	38,000	-
weighted average share price at the date of exercise (in EUR)	47.12		84.41	
range of exercise prices (in EUR)	27.56		27.56	
remaining contractual life	until June 30, 2027		until June 30, 2027	

Special Long Term Incentive Plan 2018
During financial year 2018, the Supervisory Board and the Management Board adopted a Special Long Term Incentive Plan (SLTIP 2018). The SLTIP is setup in a way that it has been economically effective as of October 11, 2018.

The SLTIP comprises a maximum of 350,000 options. This corresponds to approximately 0.5% of the share capital of Company at the time. Each option granted entitles each participant to purchase one share of ams AG for an exercise price of EUR 43.41. The available options have been granted once in 2018 after prior resolution by the LTIP committee. All granted options must be exercised by October 11, 2028.

One-third of the options can be exercised after one, two and three years after the grant. For the calculation of the option value of the first, second and third year following parameters were applied:

Valuation of options (weighted average)		1st year	2nd year	3rd year
Share price at grant	in EUR	41.07	41.07	41.07
Lifetime	years	1	2	3
Risk-free investment rate	in %	0.5	0.5	0.5
Dividend yield	in %	1.07	1.07	1.07
Expected volatility	in %	43.23	43.23	43.23
Value per option right	in EUR	5.96	8.66	10.60

The options developed in the fiscal years 2019 and 2018 as follows:

SLTIP 2018	2019		2018	
	Options	weighted average exercise price (in EUR)	Options	weighted average exercise price (in EUR)
outstanding at January 1	313,430	43.41	0	-
granted during the period	0	-	321,730	43.41
forfeited during the period	0	-	0	-
exercised during the period	0	-	0	-
expired during the period	7,160	-	8,300	-
outstanding at the end of the period	306,270	43.41	313,430	43.41
exercisable at the end of the period	103,010	-	0	-
not yet granted	36,570	-	36,570	-
weighted average share price at the date of exercise (in EUR)	-		-	
range of exercise prices (in EUR)	43.41		43.41	
remaining contractual life	until October 11. 2028		Until October 11. 2028	

Special Stock Option Plan 2019
In the 2019 financial year, the Supervisory Board and the Management Board resolved a Special Stock Option Plan (SSOP 2019), which took economic effect on 5 February 2019. The plan serves as a replacement for the expired options under LTIP 2014 from the 2016 grant.

The SSOP 2019 comprises a maximum of 660,510 options. This corresponds to 0.78% of the Company's share capital. Each granted option entitles the participants to acquire one no-par value share of ams AG for an exercise price of EUR 20.63. The available options will be granted once in 2019 following a resolution of the LTIP Committee. All options granted can be exercised until February 5, 2029 at the latest.

The options will become exercisable either after a period of 3 years, beginning on February 5, 2019, or as soon as the ams share price reaches a higher level of CHF 30 for 10 consecutive days, but earliest on August 5, 2019. For this reason, the plan became exercisable in the financial year 2019.

Valuation of options (weighted average)

		1st year
Share price at grant	in EUR	21.97
Lifetime	in years	10
Risk-free investment rate	in %	0.40
Dividend yield	in %	1.00
Expected volatility	in %	39.96
Value per option right	in EUR	9.92

The options developed in the fiscal year 2019 as follows:

SSOP 2019	2019	
	Options	weighted average exercise price (in EUR)
outstanding at January 1	0	-
granted during the period	660,510	20.63
forfeited during the period	0	-
exercised during the period	76,970	20.63
expired during the period	28,710	-
outstanding at the end of the period	554,830	20.63
exercisable at the end of the period	554,830	20.63
not yet granted	0	-
weighted average share price at the date of exercise (in EUR)	43.43	
range of exercise prices (in EUR)	20.63	
remaining contractual life	until February 5, 2029	

Long Term Incentive Plan 2019
On June 30, 2019, the Supervisory Board and the Executive Board granted a new Long Term Incentive Plan (LTIP 2019) to replace LTIP 2014. The economic effect of the grant in 2019 was achieved on September 9, 2019.

The allotment of LTIP 2019 comprises a maximum of 1,266,297 options in 2019. This corresponds to 1.5% of the Company's share capital. A total of 7.5% of the share capital was granted for the plan over the next 5 years. Three different options were granted PSU, RSU and SPSU (Performance Share Unit, Restricted Share Unit and Special Performance Share Unit). The PSUs depend on the development of the share price of ams AG compared to a defined peer group as well as the achievement of a certain level of earning per share and become exercisable after 3 years. The RSU and SPSU become exercisable within the next 4 years. Each year one quarter of the total tranche of RSUs and SPSUs become exercisable.

Each granted PSU and RSU entitles the participants to purchase one share of ams AG for an exercise price of EUR 1.00. Each granted SPSU entitles the participants to purchase one share for EUR 33.57. All granted options can be exercised until June 30, 2029 at the latest.

The following parameters were used to determine the option value for 1, 2 and 3 years.

Valuation of options (weighted average)		PSU	RSU	SPSU
Share price at grant	in EUR	40.79	40.79	40.79
Lifetime	years	10	10	10
Risk-free investment rate	in %	0.22	0.22	0.22
Dividend yield	in %	1.00	1.00	1.00
Expected volatility	in %	52.20	52.20	52.20
Value per option right	in EUR	38.64	38.83	23.36

The options developed as follows in the fiscal year 2019:

LTIP 2019		2019
	Options	weighted average exercise price (in EUR))
outstanding at January 1	0	-
granted during the period	1,266,297	6.67
forfeited during the period	0	-
exercised during the period	0	-
expired during the period	27,623	-
outstanding at the end of the period	1,238,674	6.67
exercisable at the end of the period	0	-
not yet granted	0	-
weighted average share price at the date of exercise (in EUR)	-	
range of exercise prices (in EUR)	1.00 – 33.57	
remaining contractual life	until June 30, 2029	

5. Net Financing Result

in tousends of EUR	2019	2018
Income from the buyback of convertible bonds	17,670	0
Valuation of the option right from convertible bond	0	82,769
Interest income	5,800	3,203
Exchange differences	14,903	0
Result from the revised structure of the contingent purchase price liability and the collar transaction	0	18,899
Change in the fair value of contingent purchase price liabilities	8,867	25,968
Other	1,092	87
Financial income	**48,331**	**130,926**
Transaction related financing expenses	-18,688	0
Interest expense	-42,283	-34,623
Exchange differences	0	-17,681
Valuation of the option right from convertible bond	-307	0
Other financial result	0	-179
Financial expense	**-61,278**	**-52,483**
	-12,947	**78,443**

Detailed information about the contingent purchase price liabilities can be found under note 16 and 19.

Interest expenses include interest expenses in connection with the compounding of leasing liabilities in the amount of EUR 2,117 thousand.

6. Income Tax

Recognized in the income statement

in thousands of EUR	2019	2018
Current tax		
Current year	-9,199	-7,372
from previous years	1,192	7,416
	-8,007	**43**
Deferred tax		
Change in temporary differences	-9,377	-19,825
Effect of previously unrecognized tax losses	1,431	21,869
	-7,947	**2,044**
Total expense/income tax result in income statement	**-15,953**	**2,088**

Reconciliation of effective tax expense

in thousands of EUR	2019	2018
Result before tax	315,769	91,328
Income tax using the domestic corporation tax rate (25%)	-78,942	-22,832
Effect of tax rates in foreign jurisdictions	37,421	4,518
Effect from change of US tax rate	0	0
Non-tax effective expenses/income	35,716	23,893
Tax incentives (mainly for R&D)	3,742	2,734
Current year result for which no deferred tax asset was recognized	-16,513	-35,510
Effect of previously unrecognized tax losses	1,431	21,869
Tax result from prior years	1,192	7,416
	-15,953	**2,088**

Recognized in other comprehensive income

in thousands of EUR	2019	2018
From remeasurements of defined benefit liability	876	-306
From exchange differences on translating foreign operations	2,910	-6,854

Deferred tax assets are recognized for all temporary differences and tax losses carry forwards only to the extent that it is probable that future taxable profit will be available within a foreseeable period. Therefore deferred tax asset from temporary differences' amounting to EUR 36,214 thousand (2018: EUR 40,093 thousand) as losses carried forward are not recognized in the balance sheet.

Tax liabilities relating to investments in subsidiaries amounting to EUR 59,650 thousand (2018: EUR 40,303 thousand) are not recognized in the consolidated financial statements.

7. Cash and Cash Equivalents

in thousands of EUR	2019	2018
Bank deposits	500,658	625,463
Cash on hand	113	95
Expected valuation allowances	-357	-400
	500,414	**625,158**

8. Trade Receivables, Net

in thousands of EUR	2019	2018
Trade receivables gross	203,185	121,780
Actual valuation allowances for doubtful accounts	-794	-442
Expected valuation allowances	-499	-323
	201,892	**121,015**

Expected valuation allowances at December 31, 2019 have been calculated as follows

in thousands of EUR	Not due	1 – 30 days overdue	31 – 60 days overdue	61 – 90 days overdue	> 90 days overdue	Total
Book value gross	179,887	20,092	1,908	718	580	203,185
Expected loss rate %	0.20%	0.55%	0.75%	1%	1.25%	
Expected loss	360	111	14	7	7	499

Expected valuation allowances at December 31, 2018 have been calculated as follows

in thousands of EUR	Not due	1 – 30 days overdue	31 – 60 days overdue	61 – 90 days overdue	> 90 days overdue	Total
Book value gross	102,154	15,027	3,782	462	355	121,780
Expected loss rate %	0.20%	0.55%	0.75%	1%	1.25%	
Expected loss	204	82	27	5	4	323

Expected loss rates have been derived from historical information.

The actual allowances for doubtful accounts are illustrated following:

In thousands of EUR	2019	2018
Balance at the beginning of the period	**442**	**868**
Consumptions during the year	-17	0
Reversal during the year	95	-445
Additions from business combinations	0	-13
Additions during the year	274	32
Balance at the end of the period	**794**	**442**

Trade receivables by regions

in thousands of EUR	2019	2018
Region		
EMEA	35,886	34,755
Americas	6,033	3,524
Asia / Pacific	159,974	82,736
	201,892	**121,015**

9. Inventories

in thousands of EUR	2019	2018
Unfinished goods	102,380	120,798
Finished goods	45,881	81,698
Raw materials and supplies	58,082	100,369
Contract costs	3,835	7,058
	210,178	**309,924**

Inventories stated at net realizable value were EUR 9,349 thousand as of December 31, 2019 and EUR 26,269 thousand as of December 31, 2018 respectively. The cumulative valuation allowance for inventories are as of December 31, 2019 EUR 69 million and as of December 31, 2018 EUR 66 million. In the fiscal year the amount of valuation allowance of around EUR 16 million (2018: EUR 4 million) were released, EUR 48 million (2018: EUR 24 million) were used and EUR 66 million (2018): EUR 66 million) were recognized. As of December 31, 2019 spare parts in the amount of EUR 9,068 thousand (2018: EUR 25,711 thousand) are included in the raw materials and supplies.

10. Other Receivables and Assets

in thousands of EUR	2019	2018
Financial assets		
Accrual for financial transaction costs	95,491	0
Other	11,737	9,716
	107,228	**9,716**
Non-financial assets		
Amounts due from tax authorities	11,659	14,666
Government grants related to R&D expenses	7,138	8,033
Prepaid expenses	3,529	5,363
Deferred interests	141	243
	22,468	**28,304**
Total other receivables and assets	**129,696**	**38,021**

In connection with providing the financing for the planned acquisition of the Osram Group, EUR 95,491 thousand financing fees were deferred.

Amounts due from tax authorities include receivables for corporate income taxes in the amount of EUR 5,915 thousand (2018: EUR 0 thousand).

11. Property, Plant and Equipment

in thousands of EUR	Land and buildings	Plant and equipment	Fixtures and equipment	Under construction	Government grants	Total
Cost						
Balance at January 1, 2019	**272,607**	**1,433,600**	**36,687**	**144,586**	**-27,093**	**1,860,387**
Currency translation differences	3,559	18,021	694	-9,407	0	12,867
Additions	11,498	93,501	2,612	13,915	0	121,527
Transfers	8,599	114,092	1,505	-124,197	0	0
Disposals	-273	-12,689	-1,686	-5,664	6	-20,306
Reclassification assets held for sale	0	-12,202	-177	-124	0	-12,504
Balance at December 31, 2019	**295,990**	**1,634,323**	**39,636**	**19,109**	**-27,087**	**1,961,971**
Depreciation and impairment losses						
Balance at January 1, 2019	**-97,267**	**-561,617**	**-20,924**	**0**	**25,938**	**-653,871**
Currency translation differences	-864	-3,679	-203	0	0	-4,747
Depreciation	-19,961	-155,565	-4,972	0	50	-180,448
Transfers	-27	-2	29	0	0	0
Disposals	3	5,770	1,406	0	-6	7,173
Balance at December 31, 2019	**-118,116**	**-715,094**	**-24,664**	**0**	**25,982**	**-831,892**
Carrying amount						
At January 1, 2019	**175,340**	**871,982**	**15,763**	**144,586**	**-1,155**	**1,206,516**
At December 31, 2019	**177,874**	**919,229**	**14,972**	**19,109**	**-1,105**	**1,130,078**

	Land and buildings	Plant and equipment	Fixtures and equipment	Under construction	Government grants	Total
Cost						
Balance at January 1, 2018	**219,760**	**1,212,725**	**32,754**	**106,670**	**-27,151**	**1,544,758**
Additions from business combinations	0	0	10	0	0	10
Currency translation differences	2,189	15,787	265	21,096	0	39,338
Additions	49,390	156,910	6,139	87,938	0	300,377
Transfers	2,452	68,484	181	-71,118	0	0
Disposals	-1,184	-20,306	-2,664	0	57	-24,097
Balance at December 31, 2018	**272,607**	**1,433,600**	**36,687**	**144,586**	**-27,093**	**1,860,387**
Depreciation and impairment losses						
Balance at January 1, 2018	**-84,870**	**-468,528**	**-20,429**	**0**	**25,946**	**-547,882**
Additions from business combinations	0	0	0	0	0	0
Currency translation differences	1,105	5,272	48	0	0	6,425
Depreciation	-14,575	-103,084	-3,022	0	50	-120,631
Transfers	0	0	0	0	0	0
Disposals	1,073	4,723	2,479	0	-57	8,217
Balance at December 31, 2018	**-97,267**	**-561,617**	**-20,924**	**0**	**25,938**	**-653,871**
Carrying amount						
At January 1, 2018	**134,890**	**744,197**	**12,325**	**106,670**	**-1,205**	**996,876**
At December 31, 2018	**175,340**	**871,982**	**15,763**	**144,586**	**-1,155**	**1,206,516**

As of December 31, 2019, commitments for the acquisition of property, plant and equipment amounted to EUR 16,191 thousand (2018: EUR 63,283 thousand) and intangible assets amounted to EUR 0 thousand (2018: EUR 2,490 thousand).

Government grants shown have been a one-time subsidy for equipment which is recognized through profit and loss during the useful life of the subsidized equipment.

The borrowing costs capitalized during the financial year amount to EUR 88 thousand (2018: EUR 1,034 thousand). The applied interest rates are between 1.5% and 4%.

12. Intangible Assets

in thousands of EUR	Goodwill	Customer base	Technology	Trademarks	Patents & Licences	Development costs	In development	Total
Cost								
Balance at January 1, 2019	**759,531**	**384,099**	**186,984**	**9,547**	**86,611**	**34,837**	**35,938**	**1,497,546**
Currency translation differences	3,284	3,477	-435	0	1,203	683	923	9,135
Additions	0	0	0	0	10,536	3,377	35,246	49,159
Transfers	0	0	0	0	5,457	-2,148	-3,309	0
Disposals	0	0	0	0	0	0	0	0
Reclassification assets held for sale	-45,896	-4,320	-9,160	0	-6,986	-1,384	-968	-68,713
Balance at December 31, 2019	**716,919**	**383,257**	**177,390**	**9,547**	**96,820**	**35,365**	**67,829**	**1,487,127**
Amortization and impairment losses								
Balance at January 1, 2019	**0**	**-136,641**	**-69,356**	**0**	**-65,030**	**-4,884**	**0**	**-275,911**
Currency translation differences	0	0	0	0	53	75	0	128
Amortization	0	-40,344	-22,152	-955	-12,458	-7,280	0	-96,139
Impairment lossses	-12,950	0	0	0	0	-2,692	-1,238	-3,930
Transfers	0	0	0	0	0	0	0	0
Disposals	0	0	0	0	3,049	701	0	3,750
Reclassification assets held for sale	12,950	0	0	0	0	0	0	12,950
Balance at December 31, 2019	**0**	**-176,985**	**-91,508**	**-955**	**-74,385**	**-14,081**	**-1,238**	**-359,152**
Carrying amount								
At January 1, 2019	**759,531**	**247,458**	**117,628**	**9,547**	**21,580**	**29,953**	**35,938**	**1,221,635**
At December 31, 2019	**716,919**	**206,272**	**85,882**	**8,592**	**22,435**	**21,284**	**66,591**	**1,127,975**

	Good-will	Custom-er base	Tech-nology	Trade-marks	Patents & Licences	Devel-opment costs	In de-velop-ment	Total
Cost								
Balance at January 1, 2018	**720,954**	**375,725**	**172,485**	**9,547**	**77,538**	**13,447**	**12,168**	**1,381,865**
Additions from business combinations	14,719	0	11,178	0	2	0	0	25,898
Currency translation differences	23,857	8,374	3,322	0	2,317	1,427	637	39,935
Additions	0	0	0	0	18,915	24,733	26,619	70,266
Transfers	0	0	0	0	-5,867	9,354	-3,487	0
Disposals	0	0	0	0	-6,294	-14,124	0	-20,418
Balance at December 31, 2018	**759,531**	**384,099**	**186,984**	**9,547**	**86,611**	**34,837**	**35,938**	**1,497,546**
Amortization and impairment losses								
Balance at January 1, 2018	**0**	**-93,364**	**-45,098**	**0**	**-59,033**	**-2,245**	**0**	**-199,739**
Additions from business combinations	0	0	0		0	0	0	0
Currency translation differences	0	0	0	0	-1,158	-494	0	-1,652
Amortization	0	-43,277	-24,258	0	-10,934	-5,768	0	-84,237
Transfers	0	0	0	0	0	0	0	0
Disposals	0	0	0	0	6,094	3,622	0	9,717
Balance at December 31, 2018	**0**	**-136,641**	**-69,356**	**0**	**-65,030**	**-4,884**	**0**	**-275,911**
Carrying amount								
At January 1, 2018	**720,954**	**282,361**	**127,387**	**9,547**	**18,505**	**11,203**	**12,168**	**1,182,125**
At December 31, 2018	**759,531**	**247,458**	**117,628**	**9,547**	**21,580**	**29,953**	**35,938**	**1,221,635**

For impairment testing, the goodwill has been allocated to the cash generating units (CGUs) as follows:

Cash generating unit	Book value as of Dec 31, 2019	Book value as of Dec 31, 2018
Integrated Optical Sensors	187,562	184,024
Optical Components (former Optical Sensor Solutions)	316,420	310,218
Environmental Sensors	0	39,808
Medical & Specialty Sensors	0	17,509
CMOS Imaging Sensors	130,560	130,560
Color & Spectral Sensors	27,374	26,089
Audio Sensors	3,296	3,135
Sensing Moduls & Solutions (former Illumination Systems)	49,113	48,187
	714,326	**759,531**

CGU Integrated Optical Sensors comprises TAOS Inc. which has been acquired during 2011. The goodwill determined during the acquisition of the Heptagon Group in 2017 has been allocated to the CGU Optical Components as well as the goodwills deriving from the acquisition of KeyLemon SA and ixellence GmbH. The goodwills resulting from the acquisition of AppliedSensor in 2014 and the CMOS business area acquired in 2015, as well as a proportionate goodwill arising from the acquisition of CCMOSS in 2016 have been allocated to the cash generating unit Environmental Sensors. CGU Medical & Specialty sensors includes a goodwill resulting from the acquisition of acam in 2014. CGU CMOS Imaging Sensors comprises the goodwill of CMOSIS International NV acquisition in 2015. The goodwill resulting from the acquisition of MAZeT in 2016 and a proportionate goodwill resulting from the CCMOSS acquisition in 2016 are allocated to CGU Color & Spectral Sensors. The CGU Audio Sensors comprises the goodwill from the acquisition of Incus Laboratories Ltd. The goodwill resulting from the acquisition of Princeton Optronics Inc. in 2017 has been allocated to CGU Sensing Moduls & Solutions.

Goodwill for the CGU Environmental Sensors and Medical & Specialty Sensors has been reclassified as assets held for sale (see Note 27).

As of September 30, 2019 an impairment test has been done for all CGUs. This did not result in any required impairment. The recoverable amount was calculated on the basis of fair value less cost of disposal.

The fair value has been calculated using multiples, which is based on EBITDA multiples. These multiples have been derived from a peer group of companies comparable to the relevant CGUs. Cost of disposal have been considered with a 1.5% discount. The fair value has been checked for plausibility by way of discounted cash flow method using a detailed planning period up to 2024. The cash flow surplus of the following planning periods is considered sustainable and used as a basis for the calculation of the present value of a perpetuity. For extrapolation of cash flows in the perpetuity, a growth rate of 2% has been assumed for all CGUs. The interest rate was determined based on the weighted average cost of capital (WACC). The valuation of the fair value based valuation method's input factors has been categorized as level 3 (See Note 25).

The determination of the fair value is based on the following significant parameters:

		2019		2018
	Multiple	Interest rate %	Multiple	Interest rate %
Integrated Optical Sensors	17.2	14.6	15.4	14.1
Optical Components	9.0	14.4	10.7	14.3
Environmental Sensors	NA	NA	11.4	11.3
Medical & Specialty Sensors	NA	NA	11.4	12.0
CMOS Imaging Sensors	13.8	12.7	13.7	12.0
Color & Spectral Sensors	12.3	12.8	13.6	12.4
Sensing Moduls & Solutions	9.0	14.4	10.7	14.3

A decrease of the multiples by 10% would not result in an impairment.

13. Rights of Use Assets

in thousands of EUR	Land and buildings	Fixtures and equipment	Total
Cost			
Balance at January 1, 2019	**66,756**	**1,538**	**68,294**
Currency translation differences	-4,500	1	-4,498
Additions and revaluations	81,299	330	81,629
Disposals	-3,129	-23	-3,152
Balance at December 31, 2019	**140,426**	**1,846**	**142,273**
Depreciation and impairment losses			
Balance at January 1, 2019	0	0	0
Currency translation differences	330	0	330
Depreciation	-19,394	-575	-19,968
Disposals	178	6	185
Balance at December 31, 2019	**-18,884**	**-568**	**-19,453**
Carrying amount			
At January 1, 2019	**66,756**	**1,538**	**68,294**
At December 31, 2019	**121,542**	**1,278**	**122,820**

In September 2019, ams has made the assessment that the extension option of the lease agreements for the buildings in Singapore will be used with sufficient certainty. This assessment resulted in an increase of the rights of use and the corresponding lease liability by EUR 73,430 thousand.

Rental expenses for low-value assets and short-term rents amount to EUR 4,149 thousand in fiscal year 2019.

As of 31.12.2019 ams has decided to conclude further leasing contracts in Switzerland and India, from which a right of use will arise in the following year on the date of use. The lease agreement in Switzerland will have an expected term of 14 years and an estimated monthly rent of CHF 42,000 (approximately EUR 38,500). The lease in India has an expected duration of 3 years, with an option for a further 3 years for an estimated INR 54,450 (approximately EUR 690) per month.

14. Investments in Associates

in thousands of EUR	Balance Jan 1, 2019	Additions	Proportional result	Impairment	Currency translation differences	Balance Dec 31, 2019
NewScale Technologies Inc.	557	0	74	0	9	641
RF Micron Inc.	152	0	-144	-12	4	0
Circadian Zirclight LLC	882	0	0	-903	21	0
7Sensing Software NV	1,362	0	-269	-593	0	500
Smart Sensing (JINAN) Sensor Technology Ltd.	0	27,011	0	0	-274	26,737
	2,953	**27,011**	**-338**	**-1,508**	**-240**	**27,878**

Summary of financial information for associated companies

in thousands of EUR For 100% of the shares						**2019**
	NewScale Technologies Inc.	**RF Micron, Inc.**	**Circadian Zirclight LLC**	**7Sensing Software NV**	**Smart Sensing (JINAN) Sensor Technology Ltd.**	**Total**
Reporting date	30.09.2019	30.09.2019	30.06.2019	30.09.2018	N/A	
Ownership %	29.00%	9.21%	6.13%	30.00%	49.00%	
Short term assets	1,315	1,072	458	2,523	54,543	59,911
Long term assets	189	187	3,116	64	0	3,556
Short term liabilities	319	3,251	6	608	0	4,184
Long term liabilities	74	2,266	0	1,530	0	3,870
Equity	1,110	-4,256	3,568	449	54,543	55,413
Revenues	2,178	2,648	0	1,325	0	6,151
Result of the year	**134**	**-813**	**-2**	**-770**	**0**	**-1,452**
% Share of equity	322	-392	219	135	26,726	
Goodwill/Impairment	-127	457	-399	365	285	
Currency translation differences	446	-65	181	0	-274	
Carrying amount	**641**	**0**	**0**	**500**	**26,737**	

in thousands of EUR For 100% of the shares					2018
	NewScale Technologies Inc.	RF Micron, Inc.	Circadian Zirclight LLC	7Sensing Software NV	Total
Reporting date	30.09.2018	30.09.2018	30.06.2018	30.09.2018	
Ownership %	34.00%	9.83%	6.13%	30.00%	
Short term assets	1,091	1,558	0	1,849	4,498
Long term assets	207	283	3,057	38	3,584
Short term liabilities	335	939	5	304	1,583
Long term liabilities	85	3,109	0	234	3,428
Equity	877	-2,207	3,052	1,349	3,070
Revenues	1,434	2,182	4	1,236	4,856
Result of the year	**-357**	**-1,916**	**2**	**-580**	**-2,851**
% Share of equity	298	-217	187	405	
Goodwill/Impairment	-178	437	514	957	
Currency translation differences	437	-68	160	0	
Carrying amount	**557**	**152**	**882**	**1,362**	

RF Micron Inc., Austin, Texas (US) is a developer of next generation RFID microchips and RFID platforms for itemized tracking applications and is an associated company of ams Sensors USA, Inc. Due to contractual agreements ams Sensors USA Inc., Inc. exercises significant influence although it owns 9.21%.

New Scale Technologies Inc., Victor, New York (USA) creates Piezo-based micro-motor technology and licenses products and technologies to industrial partners.

Circadian Zirclight LLC, Stoneham, Massachusetts (USA) is a developer of smart LED lighting systems, eyewear and systems for computer screen monitors that are spectrum-specific and adapted to the circadian rhythm, to offer solutions for night working places. Circadian Zirclight LLC is an associated company. Due to contractual agreements ams exercises significant influence although it owns 6.13%. In the 2019 financial year, the investment was fully written down on the basis of expected future developments.

7Sensing Software NV is a software and software licensing company that primarily develops software solutions and IP for optical, imaging, ambient and audio security solutions. In fiscal year 2019, the investment was written down by EUR 593 thousand due to expected future developments.

On 18 December 2019, ams acquired 49% of Smart Sensing (JINAN) Sensor Technology ltd, Ji'nan (China) for EUR 27,011 thousand. The company held no material assets at the time of acquisition. Smart Sensing (JINAN) Sensor Technology Ltd. is an at equity investment between ams and the private equity company. Wise Road Capital, China, to promote the development and sale of environmental, flow and pressure sensor solutions (see Note 27).

These investments are of strategic nature.

15. Deferred Tax Assets and Deferred Tax Liabilities

Deferred tax assets and deferred tax liabilities are allocated to the following items:

in thousands of EUR			2019			2018
	Net	Deferred Tax Assets	Deferred Tax Liabilities	Net	Deferred Tax Assets	Deferred Tax Liabilities
Intangible assets, property, plant and equipment	-71,811	0	-71,811	-74,399	0	-74,399
Other long term assets	-236	0	-236	-7,066	0	-7,066
Trade receivables and other assets	26,924	26,924	0	27,760	27,760	0
Interest-bearing loans and borrowings	-46,510	0	-46,510	-26,916	0	-26,916
Employee benefits	9,550	9,550	0	7,308	7,308	0
Liabilities	848	848	0	419	419	0
Provisions	2,558	2,558	0	392	392	0
Tax value of loss carry-forwards	24,753	24,753	0	23,322	23,322	0
Inventories	-139	0	-139	-154	0	-154
Deferred taxes before netting	-54,064	64,632	-118,696	-49,333	59,202	-108,535
Netting		-56,084	56,084		-42,869	42,869
Deferred taxes after netting		**8,548**	**-62,612**		**16,333**	**-65,666**

The tax loss carryforwards recognized as deferred tax assets essentially relate to ams. Tax loss carryforwards can be carried forward indefinitely in Austria and can be offset against a maximum of 75% of the current taxable income.

Based on the business plan and the related tax planning of the Company it is probable that deferred tax assets recognized in the balance sheet are recovered within a foreseeable period.

16. Other Long-Term Assets

in thousands of EUR	2019	2018
Financial assets		
Long-term financial assets		
Thereof Osram Licht AG	854,741	0
Thereof HLJ Technologies	30,326	28,877
Thereof other financial assets	966	6,768
	886,033	**35,645**
Non-financial assets		
Other long term financial assets	592	5,615
Advance payments for licenses	1,211	1,712
	1,803	**7,327**

Long term financial assets relate to strategic equity investments that does not result in having significant influence or control. The significant increase in long-term investments is due to the acquisition of 19.99% of the shares of Osram Licht AG.The changes in value recognized in other comprehensive income amounted to EUR 65,854 thousand as of December 31, 2019 (December 31, 2018: EUR -251 thousand). See Note 25.

The other long term financial assets include a contingent purchase price component of the sale of IP, technologies and product lines for NFC and RFID reader products to STMicroelectronics, valued at EUR 0 million (2018: EUR 4.6 million) at the balance sheet date (based on the expectation value of different scenarios).

17. Interest-Bearing Loans and Borrowings

in thousands of EUR	2019	2018
Non-current liabilities		
Bank loans	295,918	531,447
Promissory notes	268,400	268,400
Convertible bonds	736,279	799,166
	1,300,597	**1,599,013**
Current liabilities		
Current portion of bank loans	**781,594**	**220,022**

Terms and debt repayment schedule 2019

2019 in thousands of EUR	Total	1 year or less	2 – 5 years	More than 5 years
R & D loans				
EUR – fixed rate loans	14,148	4,230	9,918	0
Export loans				
EUR – floating rate loan	106,000	106,000	0	0
Unsecured bank facilities				
EUR – fixed rate	346,000	80,000	266,000	0
EUR – floating rate	170,000	150,000	20,000	0
Promissory note				
EUR – fixed rate loans	137,400	0	127,400	10,000
EUR – floating rate loans	131,000	0	131,000	0
Convertible bond				
USD – convertible bond	261,482	-4,004	265,486	0
EUR – convertible bond	470,793	0	0	470,793
Bridge loan				
EUR – fixed rate	445,368	445,368	0	0
	2,082,191	**781,594**	**819,804**	**480,793**

Information about the conditions of the loans can be found under Note 25.

2018 in thousands of EUR	Total	1 year or less	2 – 5 years	More than 5 years
R & D loans				
EUR – fixed rate loans	19,568	8,677	10,891	0
Export loans				
EUR – floating rate loan	106,000	106,000	0	0
Unsecured bank facilities				
EUR – fixed rate	366,000	20,000	346,000	0
EUR – floating rate	260,000	85,000	175,000	0
Promissory note				
EUR – fixed rate loans	137,400	0	44,000	93,400
EUR – floating rate loans	131,000	0	104,500	26,500
Convertible bond				
USD - convertible bond	271,523	345	271,178	0
EUR – convertible bond	527,543	0	0	527,543
	1,819,034	**220,022**	**951,570**	**647,443**

On September 25, 2017, ams AG issued a convertible bond with a nominal value of USD 350 million. The term of the bond is 5 years. Holders of convertible bonds have the right at any time to convert the bond into a total of 3,273,858 common shares (conversion price USD 106.9075 / share). As of December 31, 2019, no bonds had yet been converted.

On February 26, 2018, ams AG issued a convertible bond with a nominal value of EUR 600 million. The term of the bond is 7 years. Holders of convertible bonds have the right at any time to convert the bond into a total of 4,410,412 ordinary shares (conversion price EUR 136.0417 / share).

As of December 31, 2019, no bonds had yet been converted.

On March 12, 2019, the Group announced a repurchase program of its convertible bonds, under which both USD and EUR convertible bonds with a total volume of up to USD 100 million will be repurchased. The repurchase started on March 27, 2019 and ended on December 30, 2019. ams AG repurchased 148 USD convertible bonds and 378 EUR convertible bonds for a total of EUR 72,432 thousand. This resulted in financial income of EUR 17,670 thousand and a reduction of liabilities in the balance sheet of kEUR 90,102.

18. Provisions

in thousands of EUR	Warranties	Onerous contracts	Other personnel provisions	Other	Total
Balance at January 1, 2019	4,363	9,048	32,332	34,930	80,674
Provisions made during the year	9,797	8,080	74,896	18,614	111,388
Provisions used during the year	-2,363	-9,000	-32,330	-31,785	-75,478
Provisions reversed during the year	-1,000	-48	0	-2,826	-3,874
Balance at December 31, 2019	**10,797**	**8,080**	**74,898**	**18,933**	**112,711**

Warranties
A provision for warranties is recognized when a warranty claim is received from a customer. The group has recognized claims for repayment of insurance amounting to EUR 2,469 thousand (2018: EUR 3,000 thousand).

Onerous contracts
Provisions for onerous contracts are accrued when the expected benefits to be derived from a contract are lower than the unavoidable cost of meeting its obligations under the contract.

Other personnel provisions
Provisions for other personnel costs include profit sharing and bonuses payable within twelve months after the respective balance sheet date and sales incentives for current employees.

Other provisions
Other provisions contain mainly provisions for outstanding invoices and liabilities to vendors amounting to EUR 9,246 thousand (2018: EUR 3,440 thousand). Significant amounts of other provisions of EUR 18,933 thousand relate to one-time restructuring measures of EUR 321 thousand (2018: EUR 4,615 thousand). Of the supplier obligations amounting to EUR 21,345 thousand recognized in the previous year, EUR 19,584 thousand were used and the remaining amount was released.

19. Other Liabilities

	Current		Non-current	
in thousands of EUR	**2019**	**2018**	**2019**	**2018**
Finance lease liabilities	0	29	0	0
Employee related liabilities	6,999	12,216	0	0
Liabilities from license agreements	417	0	0	417
Derivative financial instruments	0	0	788	481
Contingent liabilities	279	5,236	5,861	17,318
IFRS lease liabilities	19,679	0	106,347	0
Accrued financial transaction costs	62,648	0	0	0
Financial liabilities	**90,022**	**17,482**	**112,996**	**18,216**
Accrued vacation days	13,202	13,116	0	0
Accrued expenses	39,862	21,729	0	0
Asset restoration obligation	244	0	13,980	11,095
Liabilities against tax authorities	1,418	1,632	0	0
Other	8,648	1,594	431	7,882
Non-financial liabilities	**63,374**	**38,071**	**14,411**	**18,977**
Total other liabilities	**153,396**	**55,552**	**127,407**	**37,193**

The contingent purchase price liabilities were measured as of the balance sheet date and result from the acquisition of KeyLemon S.A. in 2018 (EUR 2,303 thousand), and from the acquisition in 2016 of CCMOSS (EUR 1,182 thousand) and Incus Laboratories (EUR 2,655 thousand).

When KeyLemon S.A. was acquired in 2018, ams committed to make a sales-related payment. The fair value of this payment amounted to EUR 2,303 thousand (2018: EUR 4,437 thousand) as of December 31, 2019. The basis for the valuation is the sales of mobile phones up to and including 2021, which include KeyLemon software.

Another purchase price liability results from the acquisition of CCMOSS in 2016. The purchase price liability comprises a sales related earn-out model until 2020. The fair value of these payments amounted to EUR 1,182 thousand (2018: EUR 9,996 thousand) as of December 31, 2019. The basis for the valuation is the sales generated on the basis of the CCMOSS technology.

The acquisition of Incus in 2016 resulted in a contingent liability of EUR 2,655 thousand (2018: EUR 2,767 thousand). The purchase price liability includes a license earn-out model up to and including 2022. This model includes royalty payments to the seller for products based on Incus technology. The basis is the long-term sales planning for these products.

The acquisition of Princeton Optronics Inc. in 2017 resulted in a sales-related purchase price liability of EUR 4,917 thousand in 2018. In 2019, the purchase price liability was reversed in full as the conditions were not met.

In summary, the development of the conditional purchase price agreements is as follows:

	2019	2018
Balance at January 1, 2019	22,117	438,535
Revaluation	-15,977	14,397
Consideration	0	-366,654
Subsequent purchase price change	0	64,161
Balance at December 31, 2019	**6,140**	**22,117**

Upon acquisition of the Heptagon Group, ams undertook to pay a contingent consideration to the sellers. ams agreed a revised structure of the contingent consideration liability with the former shareholders on 8 March 2018. The original structure included a payment of USD 194,229 thousand and transfer of 2,954,694 ams shares and was modified into USD 14,521 thousand and 3,810,855 ams shares. The subsequent valuation of the original earn-out structure from January 1, 2018 to March 27, 2018 showed financial loss of EUR -39,817 thousand. The revised earn-out structure resulted in a financial income of EUR 63,724 thousand. This results in a financial gain of EUR 23,908 thousand for the Group in fiscal year 2018 from the revised structure.

The conversion right of the convertible bond issued in USD is recognized in other liabilities. The fair value amounted to EUR 43,581 thousand at the time of issue. The valuation of the option takes into account the conversion premium, the term, the development of the share price and the most recent dividend paid per share and amounts to EUR 788 thousand as of December 31, 2019 (2018: EUR 481 thousand).

20. Government Grants

As R&D premium EUR 15,225 thousand have been recognized in 2019 (2018: EUR 12,016 thousand), thereof EUR 1,093 thousand (2018: EUR 733 thousand) reduced acquisition costs of capitalized development costs. A total of EUR 6,896 thousand (2018: EUR 7,983 thousand) was recognized as R&D subsidies subject to certain conditions, of which EUR 1,157 thousand (2018: EUR 981 thousand) was deducted from capitalized development costs.

21. Employee Benefits

in thousands of EUR	2019		2018	
	Severance payments	Long-service benefits	Severance payments	Long-service benefits
Present values of obligations (DBO) January 1	35,219	5,100	35,728	4,487
Current service costs recognized in the income statement	7,017	1,626	2,183	723
Interest costs recognized in the income statement	331	68	310	56
Result from the actuarial revaluation	1,991	0	-2,115	0
Payments during the year	-1,953	-418	-888	-165
Present value of obligation (DBO) December 31	**42,605**	**6,377**	**35,219**	**5,100**

The obligation is not financed by a fund. The accumulated actuarial gains and losses amounted to EUR 14,493 thousand (2018: EUR 11,626 thousand) so far.

The expense is recognized in the following line items in the income statement:

in thousands of EUR	2019		2018	
	Severance payments	Long-service benefits	Severance payments	Long-service benefits
Cost of sales	3,013	695	1,187	371
Selling, general and administrative expenses	2,109	486	626	196
Research and development	2,227	513	680	213
	7,349	**1,694**	**2,493**	**779**

Main actuarial, demographic assumptions on the balance sheet date:

	2019	2018
Discount rate at December 31	0.29%	1.4%
Future salary increases	3.4%	2.7%
Fluctuation < 40 years of age	10.1%	8.3%
Fluctuation > 40 years of age	5.6%	3.4%
Retirement age – women	56.5-60	56.5-60
Retirement age – men	61.5-65	61.5-65

Expenses for the severance payment fund in the business year were EUR 1,393 thousand (2018: EUR 1,476 thousand).

The weighted average duration of severance payments is 10.76 (2018: 12.1) years. Contributions amounting to EUR 702 thousand to the plan are expected for the year 2020.

Regarding a change of the interest rate, salary increase and fluctuation a sensitivity analysis has been performed. A change of the corresponding parameters on balance sheet date would have the following effect on the debt benefit obligation.

Effect on debt benefit obligation

in thousands of EUR	decrease	increase
Change in the interest rate (+/- 20bp)	1,230	-1,980
Change in the salary increases (+/- 100bp)	-3,716	4,317
Change in the fluctuation (+/- 100bp)	354	-354

22. Shareholders' Equity

Share capital and share premium

in thousands of EUR	2019	2018
Share capital	84,420	84,420
Additional paid-in capital	719,056	709,958
	803,476	794,378

Share capital, unchanged to the previous year, comprises 84,419,826 bearer shares with a par value of EUR 1. The holders of ordinary shares are entitled to receive dividends based on the distributable net income ("Bilanzgewinn") presented in the separate financial statements of the parent company compiled in accordance with the Austrian Commercial Code (UGB) and as declared by shareholders' resolution and are entitled to one vote per share at general meetings of the Company. All shares rank equally with regard to the Company's residual assets.

In recent years the annual general meeting has regularly authorized the management board to issue a limited number of shares (contingent capital increase according to § 159 (2) AktG). The current authorization was given in June 2017 by the annual general meeting, which empowers the management board to increase the share capital in accordance to § 159 (2) Z3 AktG) by up to EUR 8,441,982.00 by issuing 8,441,982 new ordinary bearer and/or registered shares (no-par value shares) to creditors of financial instruments in accordance with § 174 AktG to the extent that the creditors make use of their conversion and / or subscription rights.

The Annual General Meeting of 6 June 2018 resolved to create a new authorized capital of 10% of the current share capital in the amount of EUR 84,419,826, which, with the approval of the Supervisory Board, authorizes the Board of Directors by issuing up to 8,441,982 new ordinary bearer or registered shares against cash and / or contribution in kind - if necessary in several tranches - and to fix the issue price, the terms of issue and the further details of the implementation of the capital increase in alignment with the Supervisory Board. Furthermore, the board is also authorized:

- If necessary, to offer the new shares to the shareholders by way of indirect subscription rights pursuant to §153 Abs 6 AktG

- to exclude the subscription rights of shareholders with the approval of the Supervisory Board, under certain circumstances

On January 24, 2020 the Extraordinary General Meeting approved a capital increase of up to EUR 1,649,000,000.00 pursuant to sections 149 et seq Austrian Stock Corporation Act (AktG) against contribution in cash respecting the shareholders' statutory subscription right, in connection with the partial financing of the takeover of OSRAM Licht AG.

The Company's share capital will be increased, against contribution in cash, by up to EUR 1,649,000,000.00 to up to EUR 1,733,419,826.00 in material protection of the shareholders' subscription right (section 153 para. 6 of the Austrian Stock Corporation Act/AktG), by issuing up to 1,649,000,000 new no-par-value bearer shares (ordinary shares), each representing a pro-rata amount of the share capital of EUR 1.00 (one euro), which carry the same dividend rights as the outstanding shares of the Company. The management board will be authorised to determine prior to the commencement of the rights offering the details of implementing the capital increase including the placement of any new shares not subscribed for. The subscription and offer price and the number of new shares offered to shareholders as part of the capital increase will be determined by the management board immediately prior to the start of the subscription period, taking into account the then prevailing market conditions as well as the financing interest of the company in achieving the Target Proceeds (therefore also at a substantial discount to the stock market price). The final volume of this capital increase is thus calculated by dividing the Target Revenue by the fixed subscription and offer price. The capital increase must be implemented within a period of six months from the date on which the general meeting adopts the resolution.

The item Additional paid-in capital affects the difference between paid-in capital when the shares were issued and the par value as well as expenses recognized according to IFRS 2 for share based payments.

The item Other reserves comprises all foreign exchange differences arising from the translation of the financial statements of foreign entities as of December 31, 2019 amounting to EUR 9,902 thousand (2018: -18,148 thousand).

Overview of accumulated other comprehensive income and foreign exchange reserve:

Accumulated other comprehensive income	Benefit oriented obligations	Valuation of equity instruments FVOCI	Foreign currency results
January 1, 2018	-13,741	550	-101,294
Change	2,115	-251	83,146
December 31, 2018	-11,626	299	-18,148

Accumulated other comprehensive income	Benefit oriented obligations	Valuation of equity instruments FVOCI	Foreign currency results
January 1, 2019	-11,626	299	-18,148
Change	-2,867	65,854	28,050
December 31, 2019	-14,493	66,153	9,902

Treasury Shares
In recent years the annual general meeting has authorized the management board to acquire treasury shares within the amounts given in the statutory regulations. The current authorization was given in June 2019 (according to § 65/1/4 and 8 AktG) by the annual general meeting, empowering the management board to buy bearer shares of ams AG, whereby the percentage of shares which are to be acquired, which were already acquired and treasury shares held from ams AG by the company should not exceed 10%. This authorization is valid until December 4, 2021.

Furthermore the management board has been authorized:
- to use treasury shares to serve stock options granted to employees, officers and members of the board of the company or affiliated companies,
- to use treasury shares to serve convertible bonds,
- to use treasury shares as consideration for the acquisition of companies, business operations or parts thereof or shares of one or more companies at home or abroad,
- to reduce the nominal capital of the company by withdrawing of shares without par value and to reduce bearer shares without further resolution of the general meeting. The supervisory board is authorized to resolve all necessary changes of the articles of incorporation and by-laws which result from this reduction, and,
- for a duration of 5 years – until June 8th, 2022 – to sell treasury shares through a stock exchange or any other public offering or any other legally permitted manner, even over the counter, with authorization of the supervisory board. The management board may decide on the exclusion of the general purchase opportunity.

Management of Equity
The economic equity matches equity as shown in the Company's balance sheet. The management board's policy is to maintain a strong capital base so as to maintain investor, creditor and customer confidence and to sustain future development of the business. Amongst other financial ratios the management board monitors equity ratio and return on equity. For establishing adequate capital resources, dividend payments and share buy-backs are considered appropriate. These aims have not changed during the business year of 2019. None of the group companies are subject to certain capital requirements.

The management board's long-term aim is to maintain a balance between profitability and liquidity. For this purpose a yearly return on equity (EBIT adjusted / equity) of 23 – 28% (2019: 20% 2018: 10%) and a return on assets ((EBIT adjusted + interest expenses) / total liabilities and equity) of 10 – 20% (2019: 7%; 2018: 5%) should be achieved. The EBIT has been adjusted by acquisition-related amortization and share-based compensation costs and one-time restructuring cost. Due to one-time effects in 2019 resulting from the planned takeover from OSRAM Licht AG, these targets were not achieved. Nevertheless these aims remain in the focus of the management board.

23. Cash Flow

The cash flow statement, which was prepared using the indirect method, shows the changes of cash and cash equivalents from operating activities, investing activities and financing activities. Cash and cash equivalents include cash on hand as well as bank deposits due at any time. Non-cash transaction are not shown. These mainly relate to not yet paid capital expenditures, company acquisitions (see item 1.c.ii and item 19) through issue of shares and valuation of financial liabilities.

In fiscal year 2019, the Group spent EUR 777,351 thousand on the acquisition of 19.99% of Osram Licht AG, which is shown under the item Acquisition of other financial assets.

In the same context, a sum of EUR 48,840 thousand was paid during 2019 financial year for the provision of financing, EUR 62,648 thousand was deferred as other liabilities for the following year, EUR 18,688 thousand was recognized under financial expenses and EUR 95,491 thousand was capitalized as other receivables.

24. Earnings per Share

in EUR	2019	2018
Net profit for the year	**299,815,816**	**93,415,740**
Result not attributable to the common stockholders	0	-391,978
Result attributable to the common stockholders	**299,815,816**	**93,023,762**
Weighted average number of shares outstanding	80,261,853	81,836,472
Earnings per share (basic)	**3.74**	**1.14**
Weighted average number of shares diluted shares	82,309,404	88,509,932
Earnings per share (diluted)	**3.64**	**0.61**
Dividends per share (paid in the business year)	**0.00**	**0.33**

The options granted according to the SOP 2005, SOP 2009, SOP 2011, SOP 2013, LTIP 2014, SSOP 2017, SLTIP 2018, LTIP 2019 and SSOP 2019 will generally have a dilutive effect. The dilution only occurs if the strike price is below the average stock-exchange price. An additional dilution effect results from convertible bond issued in USD. Dilution effects from the USD convertible bond are only to be considered if they result in lower earnings per share or a higher loss per share.

Furthermore, a dilution effect arose exclusively in the 2018 financial year from the conditional purchase price component to be paid with treasury shares in connection with the acquisition of Heptagon.

From the 2018 financial year onwards, dilution effects may result from the issue of the convertible bond in EUR. Such dilutive effects should only be taken into account if they result in lower earnings per share or a higher loss per share. When calculating the diluted earnings per share, no dilution effects were to be taken into account in the financial year 2019 because the effects of the EUR convertible bond did not result in lower earnings per share.

	2019	2018
Reconciliation of ordinary shares		
Outstanding shares as of January 1	**82,114,891**	**81,780,468**
Purchase and sale of treasury shares	-1,074,203	334,423
Outstanding shares as of December 31	**81,040,688**	**82,114,891**

	2019	2018
Reconciliation of weighted number of shares		
Weighted average number of issued shares	80,261,853	81,961,626
Obligation of buy-back of shares	0	-125,154
Weighted number of shares	**80,261,853**	**81,836,472**

	2019	2018
Reconciliation of number of diluted shares		
Weighted average number of shares outstanding as of Dec. 31	80,261,853	81,836,472
Dilution related to issue of stock options	2,047,551	2,640,379
Contingent liabilities from business combinations	0	758,682
Dilution related to the issue of convertible bonds	0	3,273,858
Weighted average number of shares diluted shares	**82,309,404**	**88,509,392**

	2019	2018
Reconciliation of treasury shares		
Treasury shares as of January, 1	**2,304,935**	**2,664,155**
Purchase of treasury shares	1,309,821	4,095,339
Sale of treasury shares	0	-3,820,448
Sale as part of share-based payment	-235,618	-634,111
Treasury shares as of December, 31	**3,379,138**	**2,304,935**

25. Financial Instruments

As part of its business, the company is exposed to a variety of risks from financial instruments. These relate to credit risk, interest rate risk, foreign currency risk and liquidity risk. We monitor and manage these risks on an ongoing basis.

All transactions in financial instruments are conducted centrally by the treasury department of the Group. In connection with these transactions, the company avails itself of consulting services from renowned national and international financial institutions.

Credit risk
According to the Management's credit policy the exposure to credit risk is continuously monitored. Credit evaluations are performed on all customers applying for a certain term of payment.

According to the Company's treasury and risk management policy, investments are allowed in liquid securities only, and solely with counter parties that have a credit rating equal to or better than the Group. Transactions involving derivative financial instruments are done with counter parties with high credit ratings.

To reduce credit risk ams limits its cooperation to financial partners with excellent credit ratings and limits the investment of cash and cash equivalents (as well as securities) to a common level.
Possible risks also exist for financial partners with excellent credit ratings, developments of financial markets are under continuous monitoring and investments of cash and cash equivalents as well as in securities are adjusted.

At the balance sheet date there were no concentrations of credit risk above average. The maximum exposure to credit risk is represented by the carrying amount of each financial asset, including derivative financial instruments in the balance sheet.

Interest rate risk
Interest rate risk – the possible fluctuations in value of financial instruments and changes in future cash flows due to changes in market interest rates – arises in relation to medium and long-term receivables and payables (especially borrowings). ams' treasury policy ensures that part of the cash flow risk is reduced by fixed-interest borrowings. On the liability side, 70% (2018: 51%) of all amounts owed to financial institutions are at fixed rates. Of the remaining borrowings on a floating rate basis 30% (2018: 49%) 42% (2018: 34%) will be repaid over the next two years. The remaining floating rate borrowings are checked on a continuing basis with regard to the interest rate risk.

Foreign currency risk
The group is exposed to currency risks arising from assets and liabilities of subsidiaries, which are denominated in a different currency than the functional currencies of the subsidiaries, as well as from net investments by the Group in subsidiaries and foreign entities in another currency than Group currency EUR. The largest risk positions are receivables, liabilities and net investments in USD and CHF. The risk of these transactions and portfolios is being constantly evaluated and minimized if necessary. As of December 31, 2019 as well as December 31, 2018 ams holds no foreign currency forward contracts to minimize its foreign currency exposure.

Liquidity risk
Liquidity risk is the risk for the Company not to be able to fulfill its financial obligations on maturity. The management's approach is to ensure sufficient liquidity for the Company under ordinary and extraordinary conditions. The management monitors constantly the cash demand and optimizes the cash flow. Detailed planning occurs for a period of at least 12 months in which also due payables and extraordinary circumstances as far as foreseeable are considered. Additionally the company has unused credit lines available.

Summary of financial instruments recorded on the balance sheet as of December 31, 2019:

in thousands of EUR	FVOCI	FVTPL	At amortized cost	Carrying amount	Fair value
Short-term financial assets					
Cash and cash equivalents	0	0	500,414	500,414	500,414
Trade receivables	0	0	201,892	201,892	201,892
Other receivables and assets	0	0	107,228	107,228	107,228
Long-term financial assets	855,707	30,326	592	886,625	886,625
	855,707	**30,326**	**810,126**	**1,696,159**	**1,696,159**

in thousands of EUR	Fair Value through P/L	At amortized cost	Carrying amount	Fair value
Short-term financial liabilities				
Interest bearing loans and borrowings	0	781,594	781,594	787,185
Trade payables	0	135,461	135,461	135,461
Other liabilities	279	89,743	90,022	90,022
Interest bearing loans and borrowings	0	1,300,597	1,300,597	1,309,900
Other long-term liabilities	6,671	106,347	113,018	113,018
	6,950	**2,413,743**	**2,420,693**	**2,435,586**

Summary of financial instruments recorded on the balance sheet as of December 31, 2018:

in thousands of EUR	FVOCI	FVTPL	At amortized cost	Carrying amount	Fair value
Short-term financial assets					
Cash and cash equivalents	0	0	625,158	625,158	625,158
Trade receivables	0	0	121,015	121,015	121,015
Other receivables and assets	0	0	9,716	9,716	9,716
Long-term financial assets	6,768	28,887	5,615	41,270	41,270
	6,768	**28,887**	**761,504**	**797,159**	**797,159**

in thousands of EUR	Fair Value through P/L	At amortized cost	Carrying amount	Fair value
Short-term financial liabilities				
Interest bearing loans and borrowings	0	220,022	220,022	217,857
Trade payables	0	175,887	175,887	175,887
Other liabilities	5,236	12,245	17,482	17,482
Interest bearing loans and borrowings	0	1,599,013	1,599,013	1,583,284
Other long-term liabilities	17,799	417	18,216	18,216
	23,036	**2,007,584**	**2,030,619**	**2,012,726**

Due to the short-term maturity of these items, the fair value of the financial assets of the category loans and receivables and of trade payables and current financial liabilities essentially corresponds to the book value.

The following table shows, for the financial assets and liabilities measured at fair value, which level in the fair value hierarchy is to be allocated to the fair value. The levels have the following meaning:

Level 1: Quoted prices (unadjusted) in active markets for identical assets and liabilities.
Level 2: inputs other than quoted prices included in Level 1 that are observable for the asset or liability, either directly (i.e. as prices) or indirectly (i.e. derived from prices).
Level 3: inputs for the asset or liability that are not based on observable market data (unobservable inputs).

2019 in thousands of EUR	Level 1	Level 2	Level 3	Total
Short-term financial assets				
Financial assets	0	0	0	0
Long-term financial assets				
Financial assets	886,033	0	592	886,625
	886,033	**0**	**592**	**886,625**
Short-term financial liabilities				
Other liabilities	0	0	19,958	19,958
Long-term financial liabilities				
Other liabilities	0	788	113,018	113,806
	0	**788**	**132,976**	**133,764**

2018 in thousands of EUR	Level 1	Level 2	Level 3	Total
Short-term financial assets				
Financial assets	0	0	0	0
Long-term financial assets				
Financial assets	29,730	0	5,915	35,645
	29,730	**0**	**5,915**	**35,645**
Short-term financial liabilities				
Other liabilities	0	0	5,236	5,236
Long-term financial liabilities				
Other liabilities	0	481	17,318	17,799
	0	**481**	**22,554**	**23,035**

The option to convert the bond into shares of ams AG (see Note 17), which is part of the convertible bond, is classified as non-current liabilities of Level 2. The fair value of the option is determined taking into account the conversion premium, the term, the development of the share price and the most recent dividend paid per share.

Other liabilities comprised in Level 3 relate to contingent considerations in connection with company acquisitions (see note 19). The valuation is based on the current assessment of the contractual payments.

Net gains and losses from financial instruments

2019 in thousands of EUR	Interest	Result from valuation	Foreign currency valuation	Result from divestment
Financial assets				
Financial assets FVTPL	0	-893	0	0
Financial assets FVOCI	0	65,854	0	0
Loans and receivables	5,800	-3,470	10,899	0
	5,800	**61,490**	**10,899**	**0**
Financial liabilities				
At fair value through profit & loss	-2,674	14,015	0	17,670
At amortized costs (other financial liabilities)	-58,296	0	4,004	0
	-60,970	**14,015**	**4,004**	**17,670**

Individual allowances on loans and receivables (trade receivables and other receivables) amounting to EUR 545 thousand (2018: EUR 500 thousand) have been recognized in other operating expenses.

2018 in thousands of EUR	Interest	Result from valuation	Foreign currency valuation	Result from divestment
Financial assets				
Derivatives	0	-5,009	0	0
Financial assets FVTPL	0	1,457	0	0
Financial assets FVOCI	631	-251	0	57
Loans and receivables	2,571	8,013	13,441	0
	3,203	**4,210**	**13,441**	**57**
Financial liabilities				
At fair value through profit & loss	-548	99,354	0	23,908
At amortized costs (other financial liabilities)	-34,075	0	-3,974	0
	-34,623	**99,354**	**-3,974**	**23,908**

Effective interest rates and liquidity analysis

In the following are the contractual maturities of financial liabilities including interest payments and the effective interest rates at the balance sheet date.

2019 in thousands of EUR	Effective interest rate	Carrying amount	Expected cash flow	0 – 1 year	2 – 5 years	More than 5 years
R & D loans						
EUR – Fixed rate loans	1.05%	14,148	14,411	4,373	10,037	0
Export loans						
EUR – floating rate loans	0.70%	106,000	106,738	106,738	0	0
Unsecured bank facilities						
EUR – Fixed rate loan	1.63%	346,000	353,043	85,239	267,804	0
EUR – Floating rate loan	1.75%	170,000	172,840	152,610	20,230	0
Promissory note						
EUR – Fixed rate loans	1.68%	137,400	145,587	2,299	133,024	10,264
EUR – Floating rate loans	1.68%	131,000	135,811	2,192	133,620	0
Convertible bond						
USD – Convertible bond	3.05%	261,482	279,369	2,419	276,949	0
EUR – Convertible bond	2.11%	470,793	524,400	0	524,400	0
Bridge loan						
EUR – fixed rate loan	3.08%	445,368	450,000	450,000	0	0
EUR – financial transaction costs		62,648	62,648	0	0	0
		2,144,839	**2,244,846**	**805,869**	**1,366,064**	**10,264**
Liabilities from leasing contracts						
EUR – fixed rate loan	2.56%	126,026	139,435	19,679	76,882	42,874
Contingent consideration						
EUR	0.18%	6,140	6,162	279	5,883	0
		2,277,006	**2,390,443**	**825,827**	**1,448,830**	**53,138**

2018 in thousands of EUR	Effective interest rate	Carrying amount	Expected cash flow	0 – 1 year	2 – 5 years	More than 5 years
R & D loans						
EUR – Fixed rate loans	1.17%	19,568	19,920	8,854	11,066	0
Export loans						
EUR – floating rate loans	0.70%	106,000	106,738	106,738	0	0
Unsecured bank facilities						
EUR – Fixed rate loan	0.87%	366,000	372,838	23,066	349,772	0
EUR – Floating rate loan	0.78%	260,000	262,626	86,678	175,948	0
Promissory note						
EUR – Fixed rate loans	1.60%	137,400	147,383	2,188	88,459	56,736
EUR – Floating rate loans	1.50%	131,000	137,237	1,952	129,738	5,548
Convertible bond						
USD – Convertible bond	3.88%	271,523	307,821	2,643	305,178	0
EUR – Convertible bond	2.11%	527,543	600,000	0	0	600,000
		1,819,034	**1,954,562**	**232,118**	**1,060,160**	**662,283**
Liabilities from finance lease						
USD – Fixed rate	1.69%	29	30	30	0	0
Contingent consideration						
EUR	0.84%	22,117	22,555	5,236	17,318	0
		1,841,181	**1,977,146**	**237,384**	**1,077,479**	**662,283**

Risk of change of interest rates

At the balance sheet date the interest bearing financial instruments carry the following values:

in thousands of EUR	2019	2018
Financial assets		
Fixed rate financial instruments	0	0
Financial liabilities		
Fixed rate loans	942,916	522,968
Floating rate loans	407,000	497,000
Convertible bond (fixed rate)	732,276	799,066
Fixed rate financial lease	126,026	29

Cash flow sensitivity analysis for variable rate financial instruments

A change of +/- 100 basis points (bp) in interest rates at the reporting date would have increased (decreased) equity and profit or loss by the amounts shown below. This analysis assumes that all other variables, in particular currency rates, remain constant. The analysis for the business year 2018 was performed on the same basis.

2019 in thousands of EUR	Profit & loss statement		Equity	
	100 bp increase	100 bp decrease	100 bp increase	100 bp decrease
Financial liabilities				
Floating rate loans	-5,985	5,985	-5,985	5,985

2018 in thousands of EUR	Profit & loss statement		Equity	
	100 bp increase	100 bp decrease	100 bp increase	100 bp decrease
Financial liabilities				
Floating rate loans	-8,602	8,602	-8,602	8,602

Foreign currency risk

The company's exposure to foreign currency risk at the balance sheet date was as follows based on notional amounts (without net investments in subsidiaries and investments in associated companies):

2019 in thousands of	USD	CHF	JPY	SGD
Trade receivables and other receivables	177,754	5,167	161,397	5,751
Trade liabilities and other liabilities	-261,760	-8,783	-310,575	-31,833
Net foreign currency risk	**-84,006**	**-3,615**	**-149,178**	**-26,082**

2018 in thousands of	USD	CHF	JPY	SGD
Trade receivables and other receivables	152,983	1,696	137,274	39,672
Trade liabilities and other liabilities	-128,362	-138,243	-926,401	-63,959
Net foreign currency risk	**24,622**	**-136,547**	**-789,127**	**-24,287**

Sensitivity analysis

A 10 percent strengthening/weakening of the EUR against the following currencies would have increased (decreased) equity and profit loss by the amounts shown below.

2019 in thousands of EUR	Profit & loss		Equity	
	10% Increase	10% Decrease	10% Increase	10% Decrease
USD	29,220	-35,713	29,220	-35,713
CHF	303	-370	303	-370
JPY	111	-136	111	-136
SGD	2,989	-3,653	2,989	-3,653

2018 in thousands of EUR	Profit & loss		Equity	
	10% Increase	10% Decrease	10% Increase	10% Decrease
USD	22,772	-27,832	22,772	-27,832
CHF	11,016	-13,463	11,016	-13,463
JPY	570	-697	570	-697
SGD	4,322	-52,819	4,322	-52,819

This analysis assumes that all other variables, in particular interest rates, remain constant. The analysis for the business year 2018 was performed on the same basis. The above table does not include the impact of currency translation effects on the translation of foreign currency financial statements into equity.

The following FX exchange rates were used during the business year:

	Annual average exchange rate		Period end exchange rate	
	2019	2018	2019	2018
USD	1.1195	1.1793	1.1234	1.1450
CHF	1.1111	1.1516	1.0854	1.1269
JPY	121.96	130.01	121.94	125.85
SGD	1.5253	1.5902	1.5111	1.5591

26. Reconciliation of Movements of Liabilities to Cash Flows Arising from Financing Activities

in thousands of EUR	Other loans and borrowings	Convertible notes	Finance lease liabilities	Total
Balance at 1 January 2019	**1,019,938**	**799,547**	**29**	**1,819,515**
Leasing liabilities (first-time application and changes in IFRS 16 during the year)	0	0	145,366	145,366
Changes from financing cash flow				
Received loans	571,971	0	0	571,971
Repayment of loans	-238,677	0	0	-238,677
Repayment of convertible notes	0	-72,432	0	-72,432
Payments for lease liabilities	0	0	-19,267	-19,267
Interest paid	-18,084	-2,674	-2,117	-22,875
Transaction costs of financial liabilities	-48,840	0	0	-48,840
Cash flow effective change of financial liabilities	**266,369**	**-75,106**	**-21,384**	**169,879**
The effect of changes in foreign exchange rates	**916**	**-3,954**	**0**	**-3,038**
Changes in fair value	**0**	**307**	**0**	**307**
Capitalised borrowing costs	0	-88	0	-88
Interest expenses and finance expenses	24,564	21,386	2,117	48,067
Accrued financing fee	-21,630	0	0	-21,630
Total other changes in the financial liabilities	**2,934**	**21,298**	**2,117**	**26,349**
Balance at 31 December 2019	**1,290,158**	**742,092**	**126,128**	**2,158,378**

The column "Convertible bonds" includes both the debt component included in the item Interest-bearing loans in the balance sheet and the option value of the USD convertible bond shown as other liabilities.

in thousands of EUR	Other loans and borrowings	Convertible notes	Finance lease liabilities	Total
Balance at 1 January 2018	**1,007,847**	**333,500**	**107**	**1,341,454**
Changes from financing cash flow				
Proceeds from issue of convertible notes	0	612,000	0	612,000
Received loans	329,448	0	0	329,448
Repayment of loans	-316,900	0	-77	-316,977
Interest paid	13,975	-2,560	-2	-16,536
Cash flow effective change of financial liabilities	**-1,427**	**609,440**	**-79**	**607,934**
The effect of changes in foreign exchange rates	**-457**	**15,149**	**0**	**14,692**
Changes in fair value	**0**	**-82,769**	**0**	**-82,769**
Capitalised borrowing costs	0	-1,034	0	-1,034
Interest expenses	13,975	18,831	2	32,808
Equity portion of the convertible bond	0	-93,570	0	-93,570
Total other changes in the financial liabilities	**13,975**	**-75,773**	**2**	**-61,796**
Balance at 31 December 2018	**1,019,938**	**799,547**	**29**	**1,819,515**

The column "Convertible bonds" includes both the debt component included in the item Interest-bearing loans in the balance sheet and the option value of the USD convertible bond shown as other liabilities.

27. Assets and Liabilities Held for Sale

In March 2019 ams signed an agreement to establish an investment in cooperation with Wise Road Capital, China, to jointly develop the environmental, flow and pressure sensor business for the global market. The structure of the established company reflects a minority shareholding of 49% (directly and indirectly) of ams. Under the terms of the agreement, ams will transfer employees, intellectual property, sensor products and solutions as well as associated customers to the founded company and simultaneously acquires direct and indirect minority interests in it. The closing of the transaction took place in January 2020.

For this reason, the assets and liabilities belonging to the transferred business were classified as a disposal group held for sale.

in thousands of EUR	Assets held for sale
Intangible assets	63,545
Property, plant and equipment	18,089
Inventories	4,463
	86,097

in thousands of EUR	Liabilities held for sale
Employee benefits	807
Other liabilities	529
	1.336

Due to the market-specific valuation of the transferred net assets resulting from the contractual agreements, the assets held for sale were written down by EUR 12,950 thousand.

28. Contingencies

The preparation of the consolidated financial statements in accordance with IFRS requires judgments for the application of accounting rules and estimates relating to the determination of assumptions about future developments by management, the recognition and value of assets and liabilities, disclosure of other commitments at the balance sheet date and presentation of income and expenses during the financial year.

Material judgments for the application of accounting rules relate to:

- The classification of the option rights from the USD convertible bond as debt (Note 17 and 19)
- The classification of the option rights from the EUR convertible bond as equity (Note 17, 19 and 22)
- Estimation uncertainties in the valuation of leases (Note 13).

Within the following assumptions risks exist which could lead to changes in the value of assets or liabilities during the following fiscal year:

- The assessment of the recoverability of goodwill (impairment tests); the calculation of the fair value of the respective CGUs is based on EBITDA multipliers, the plausibility calculation to assess the recoverability of capitalized goodwill based on a forecasted cash flow for the next few years using a discount rate adjusted to the entity's cash-generating unit (Note 12).
- The application of deferred tax assets is under the assumption that taxable income will be available to take advantage of existing tax loss carry forwards in the future. (see Note 6 and 15)
- The valuation of provisions for severance payments and long service benefits is made using assumptions concerning the discount rate, retirement age, fluctuations and future salary increases. (see Note 21)

29. Related Parties: Identification of Related Parties

The Company has a related party relationship with:
- the members of the Management Board of the Company (CEO, CFO, COO, CBO)
- the members of the Company's Supervisory Board (Aufsichtsrat)
- persons related to the Executive Board of the Company (CEO, CFO, COO, CBO)
- associated companies
- the not consolidated affiliated company ams Sensors Hong Kong Ltd.

Bodies of the company:

Management Board:
Alexander Everke, Michael Wachsler-Markowitsch, Thomas Stockmeier, Mark Hamersma.

Supervisory Board:
Hans Jörg Kaltenbrunner (Chairman), Michael Grimm (Deputy Chairman), Brian Krzanich (member), Monika Henzinger (member), Yen Yen Tan (member), Loh Kin Wah (member), Johann Eitner (employee representative), Andreas Pein (employee representative), Bianca Stotz (employee representative).

As of December 31, 2019 and December 31, 2018 respectively, the remuneration for the Management Board was as follows:

Remuneration (in thousands of EUR)	2019	2018
Salary		
Salary, not variable	1,974	1,839
Salary, variable	4,272	240
Options		
Options (value at allocation)	14,437	4,000
Non cash benefit		
Car	33	26
Other non cash benefits	203	0
Expense for precautionary measures		
Contribution to accident insurance	0	4

The Company recorded an amount of EUR 2,684 thousand in the profit and loss from accrual for severance payments for the Management Board (2018: Allocation of EUR 421 thousand).

During the business year 0 call options (2018: 77,380) of LTIP 2014 for the Management board were allocated during the year as well as 0 call options (2018: 0) of SSOP 2017 as well as 0 call options (2018: 35,560) were allocated of SLTIP 2018. In addition, 425,235 call options were allocated under the LTIP 2019 and 201,950 call options were allocated under the SSOP 2019.

The strike price amounts to EUR 1 (2018: EUR 1.00) for LTIP 2014, EUR 27.56 for SSOP 2017, EUR 43.41 for SLTIP 2018, EUR 1 or EUR 33.57 for LTIP 2019 and EUR 20.63 for SSOP 2019.
For conditions and valuations of the call options for shares of ams AG based on the LTIP 2014, SSOP 2017, SLTIP 2018, SSOP 2019 and LTIP 2019 please refer to Note 4.

The Company's Executive Officers hold 34,400 shares and call options for the purchase of 1,925,994 shares as of December 31, 2019 (34,400 shares and call options for the purchase of 1,861,259 shares as of December 31, 2018).

Persons related to the Management Board held 1,250 shares and no options of ams AG as of December 31, 2019 and 1,250 shares and no options as of December 31, 2018, respectively.

The remuneration of the company's Supervisory Board amounted to EUR 780 thousand (2018: EUR 538 thousand). All remunerations were or are paid directly by the Company. The remuneration shown relates to the amounts actually paid in the financial year. The remuneration for the 2019 financial year will be determined at the Annual General Meeting on 3 June 2020. The Company has not concluded any consultancy agreements with members of the Company's Supervisory Board.

The shares and options holdings of the Supervisory board are as follows:

in thousands of EUR	2019	2018
Number of		
Shares as of Dec, 31	0	54,000
Options as of Dec, 31	335	335

As of December 31, 2019 persons related to the Supervisory Board held no shares (2018: 0) and no options of ams AG (2018: 0).

There are no open loan agreements with members of the Supervisory Board and the Management Board.

Related party transactions

	Transaction value for the business year		Balance outstanding as of Dec, 31	
in thousands of EUR	**2019**	**2018**	**2019**	**2018**
New Scale Technologies Inc., New York				
Sale of goods and services	16	12	0	4
Purchased services	-165	-83	-10	0
7Sensing Software				
Sale of goods and services	0	0	0	0
Purchased services	-22	0	0	0

ams has a loan agreement with 7sensing Software amounting to EUR 2,500 thousand which can be drawn anytime by 7Sensing Software. As of December 31, 2019, EUR 1,500 thousand of the credit agreement was exercised, which was written down in the consolidated financial statements 2019.

These investments are of strategic nature.

30. Remuneration for the Auditors

The expense for the auditor's remuneration for the audit of the financial statements and annual consolidated financial statements 2019 amounted to EUR 341 thousand. For other consultancy services EUR 117 thousand have been additionally expensed.

31. Group Enterprises

	Accounting method	Country of incorporation	Functional currency	Ownership interest	
				2019	**2018**
ams France S.à.r.l.	fully consolidated	France	EUR	100%	100%
ams Italy S.r.l.	fully consolidated	Italy	EUR	100%	100%
ams International AG	fully consolidated	Switzerland	CHF	100%	100%
ams R&D Spain, S,L.	fully consolidated	Spain	EUR	100%	100%
ams R&D UK Ltd.	fully consolidated	U, K,	GBP	100%	100%
ams Japan Co, Ltd.	fully consolidated	Japan	JPY	100%	100%
ams Semiconductors India Pvt Ltd.	fully consolidated	India	INR	100%	100%
ams China Co Ltd	fully consolidated	China	RMB	100%	100%
ams Asia Inc,	fully consolidated	Philippines	PHP	100%	100%
Aspern Investment Inc.	fully consolidated	USA	USD	100%	100%
ams Sensors USA Inc.	fully consolidated	USA	USD	100%	100%
ams Korea Co, Ltd.	fully consolidated	Korea	KRW	100%	100%
ams R&D doo	fully consolidated	Slovenia	EUR	100%	100%
AppliedSensor Holding AB	fully consolidated	Sweden	SEK	100%	100%
ams Sensors Netherlands BV	fully consolidated	Netherlands	EUR	100%	100%
ams sensors Hong Kong Ltd.	at amortized costs	Hong Kong	HKD	100%	100%
ams Finland Oy	fully consolidated	Finland	EUR	100%	100%
ams Sensors Belgium BVBA	fully consolidated	Belgium	EUR	100%	100%
CMOSIS International NV	fully consolidated	Belgium	EUR	100%	100%
AWAIBA Holding SA	fully consolidated	Switzerland	CHF	100%	100%
ams Sensors Portugal Unipessoal Lda	fully consolidated	Portugal	EUR	100%	100%
ams Sensors Germany GmbH	fully consolidated	Germany	EUR	100%	100%
ams Sensors UK Ltd.	fully consolidated	UK	GBP	100%	100%
Incus Laboratories Ltd.	fully consolidated	UK	GBP	100%	100%
ams Cayman Inc.	fully consolidated	Cayman Island	USD	100%	100%
Heptagon Advanced Micro-Optics Pte Ltd.	fully consolidated	Singapore	USD	100%	100%
ams Sensors Singapore Pte. Ltd.	fully consolidated	Singapore	USD	100%	100%
Heptagon Oy	fully consolidated	Finland	EUR	100%	100%
Heptagon Holding Switzerland AG	fully consolidated	Switzerland	CHF	100%	100%
Heptagon Micro Optics Technologies Sdn Bhd	fully consolidated	Malaysia	MYR	100%	100%
AMK Inv Systems Pte. Ltd.	fully consolidated	Singapore	USD	100%	100%
Heptagon Holding CA Inc.	fully consolidated	USA	USD	100%	100%
RF Digital Corp.	fully consolidated	USA	USD	100%	100%
Simblee Corp.	fully consolidated	USA	USD	100%	100%
RFDuino Inc.	fully consolidated	USA	USD	100%	100%
Princeton Optronics Inc.	fully consolidated	USA	USD	100%	100%
ams Holding USA Inc.	fully consolidated	USA	USD	100%	100%
ams Sensors Asia Pte. Ltd.	fully consolidated	Singapore	USD	100%	100%
KeyLemon SA	fully consolidated	Switzerland	CHF	100%	100%
Ams Sensors Taiwan Pte. Ltd.	fully consolidated	Taiwan	TWD	100%	0%
Sciosense BV	fully consolidated	Netherlands	EUR	100%	0%
Sciosense Germany GmbH	fully consolidated	Germany	EUR	100%	0%
Sciosense Italy S.r.l.	fully consolidated	Italy	EUR	100%	0%
Opal Bidco GmbH	fully consolidated	Germany	EUR	100%	0%
ams Offer GmbH	fully consolidated	Germany	EUR	100%	0%

32. Associated Companies and Investments

	Accounting method	Establishing State	Functional currency	Ownership share	
				2019	2018
7Sensing Software NV.	At equity method	Belgium	EUR	30%	35%
NewScale Technologies Inc.	At equity method	USA	USD	29%	34%
Circadian Zirclight LLC	At equity method	USA	USD	6.13%	7.8%
RF Micron Inc. d/b/a Axzon	At equity method	USA	USD	9.21%	9.83%
Jinan Smart Sensing Sensor Co. Ltd.	At equity method	China	CNY	49%	0%
Greentropsim	FVOCI	France	EUR	10.06%	9.31%
Personify Inc.	FVOCI	USA	USD	13.06%	13.10%
Leman Micro Devies	FVOCI	Switzerland	CHF	15.43%	17.30%
HLJ Technologies Co. Ltd.	FVTPL	Taiwan	TWD	12.50%	15.20%
Osram Licht AG	FVOCI	Germany	EUR	19.99%	0%
Silicon Alps Cluster GmbH	FVOCI	Austria	EUR	4%	0%
Bellus 3D	FVOCI	USA	USD	3.26%	3.26%

33. Events After the Balance Sheet Date

The closing of the transaction in connection with the investment in Jinan Smart Sensing Sensor Co in cooperation with Wise Road Capital on January 13, 2020, to which ams transferred its portfolio of environmental sensor solutions, has to be mentioned as a significant event after the balance sheet date.

In early 2020, the rapid spread of corona viruses and associated responses have negatively affected manufacturing and supply chain processes in a number of countries in the Asia, Australia and the Pacific region ("Asia/Pacific") on which the ams Group depends for its raw materials and parts or as a major customer base. It is not yet clear whether or to what extent this will continue to impact consumer behaviour, purchasing and demand trends, or manufacturing and supply chains in the affected countries and regions or whether the affected countries and regions will expand. If precautionary measures, such as the closure of manufacturing facilities or travel limitations, continue for a significant length of time, or if additional measures are implemented that would have a further negative impact, this will negatively impact the ams Group's ability to source component parts utilized in its production activities or may negatively impact the demand from customers for ams product to be used in the assembly of their products. In addition, if coronavirus (or precautionary measures put in place in response to coronavirus) has a negative impact on end-market consumer demand, in particular in key end-markets, this may result in reduced demand for the ams Group's products. At the time of statement of the consolidated financial statements, the Management Board of the Company is not aware of any material negative effects of the corona virus on the Group.

On January 24, 2020, the shareholders' extraordinary general meeting approved a capital increase of up to EUR 1,649,000,000.00, according to § 149 ff AktG against cash contribution and while maintaining the subscription right of the shareholders, in connection with the financing the transaction of OSRAM Licht AG (see note 22 in the notes to the consolidated financial statements).

Premstaetten, February 24, 2020

Alexander Everke Management Board Member CEO	Michael Wachsler-Markowitsch Management Board Member CFO	Dr. Thomas Stockmeier Management Board Member COO	Mark Hamersma Management Board Member CBO

Auditor's Report

Report on the Consolidated Financial Statements

Audit Opinion
We have audited the consolidated financial statements of ams AG, Premstätten, Austria, and its subsidiaries ("the Group"), which comprise the Consolidated Balance Sheet acc. to IFRS as at 31 December 2019 and the Consolidated Income Statement acc. to IFRS, the Consolidated Statement of Comprehensive Income, the Consolidated Statement of Cash Flows acc. to IFRS and the Statement of Changes in Shareholders' Equity for the year then ended, and the Notes to the Consolidated Financial Statements.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the Group as at 31 December 2019, and its consolidated financial performance and consolidated cash flows for the year then ended in accordance with International Financial Reporting Standards (IFRS) as issued by the International Accounting Standards Board and as adopted by the EU and the additional requirements pursuant to Section 245a UGB (Austrian Commercial Code).

Basis for our Opinion
We conducted our audit in accordance with Austrian Standards on Auditing. These standards require the audit to be conducted in accordance with International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the "Auditor's Responsibilities" section of our report. We are independent of the audited Group in accordance with Austrian company law and professional regulations, and we have fulfilled our other responsibilities under those relevant ethical requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

Key Audit Matters
Key audit matters are those matters that, in our professional judgment, were of most significance in our audit of the consolidated financial statements. These matters were addressed in the context of our audit of the consolidated financial statements as a whole, however, we do not provide a separate opinion thereon.

Transactions / M&A
Refer to notes 3, 16, 27 and 33

Risk for the Financial Statements
ams AG frequently engages in acquisitions and disposals of business components. In the context of the planned acquisition of OSRAM Licht AG, Germany, the company has already acquired 19,359,929 shares or 19.99% no-par value registered shares in OSRAM Licht AG in the 2019, which are presented under financial investments and other assets. The fair value of these shares was EUR 854.7 million as of 31 December, 2019.

In March 2019, the company signed an agreement to establish a company in cooperation with Wise Road Capital, China. Under the agreement, the Company will transfer a business with employees, intellectual property, property, plant and equipment, sensor products and solutions, and associated customers to the founded company. The agreement also provides for the acquisition of directly and indirectly held minority interests in this company totaling 49%. The transaction was closed on 13 January 2020. In the consolidated financial statements as of 31 December 2019, the company classifies the assets belonging to this business in the amount of EUR 86.1m (primarily property, plant and equipment, intangible assets and inventories) and liabilities in the amount of EUR 1.3m (employee benefits) as a disposal group held for sale. This disposal group held for sale is measured at the lower of its previous carrying amount and the fair value less costs to sell. This measurement resulted in an impairment loss of EUR 13.0m.

In December 2019, the Company sold the business operations comprising the design activities for high-performance interfaces for MEMS (microelectromechanical systems) microphones to its customer, the Knowles Group, in the form of an asset deal. From this transaction, the Company realized a gain of EUR 51.8m.

Accounting for disposals and acquisitions requires the application of complex accounting policies. For the consolidated financial statements, this leads to the risk that the transactions are not correctly reflected in the consolidated financial statements.

Our Response
We have assessed the accounting for acquisitions and disposals of business as follows:

We have read the relevant parts of the purchase/sale agreements, obtained an understanding of the deal structure and assessed whether the accounting treatment has been consistent with the terms of the agreements. This comprises, among other aspects, assessing the date from which a significant influence or control over a business is acquired or lost, the amount of consideration given or received (purchase or sale prices), and how any transaction and financing costs are to be recognized.

Regarding the measurement of the disposal group classified as held for sale, we have retraced the derivation of the fair value less costs to sell and verified its mathematical accuracy.

In addition, we have assessed whether the presentation and disclosures of the transactions in the consolidated financial statements are reasonable and appropriate.

Goodwill impairment testing
Refer to notes section 12

Risk for the Consolidated Financial Statements
Under IAS 36, the Company is required to allocate its goodwill to cash-generating units (CGUs) and to test goodwill for impairment annually and whenever there is a triggering event that goodwill may be impaired ("impairment test"). As of December 31, 2019, the carrying amount of goodwill was EUR 714,3 million.

The impairment test is performed on a fair value less costs to sell basis. Fair value was calculated using the multiples approach. This method uses EBITDA multiples derived from a group of companies comparable to the respective CGU. Resulting fair values are evaluated for reasonableness (plausibility check) by a valuation on the basis of discounted future cash flows (DCF method).

The impairment test requires an appropriate valuation method and the definition of significant assumptions and other relevant inputs.

This gives rise in particular to the risk that
- cash-generating units are not properly defined,
- methods used are not in accordance with the requirements of IAS 36, or
- assumptions and inputs are not appropriate

and that, consequently, an impairment loss is not appropriately recognized in the financial statements.

Our Response
We have assessed the recoverability of goodwill as follows:

We have gained an understanding of the approach and the valuation techniques used for the impairment test.

We have reviewed the determination of the cash-generating units and assessed their appropriateness.

We have assessed whether the valuation methods used are in accordance with the requirements of IAS 36, retraced the derivation of the multiples used for the valuation and the interest rates and planning assumptions used for the plausibility check and tested the valuations for their mathematical accuracy. This assessment was carried out in consultation with valuation specialists.

In addition, we have assessed whether the notes on goodwill in the consolidated financial statements are appropriate.

Responsibilities of Management and the Audit Committee for the Consolidated Financial Statements
Management is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards (IFRSs) as issued by the International Accounting Standards Board and adopted by the EU, the additional requirements pursuant to Section 245a UGB (Austrian Commercial Code) and for such internal controls as management determines are necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

Management is also 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 management either intents to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

The audit committee is responsible for overseeing the Group's financial reporting process.

Auditor's Responsibilities
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 audit opinion. Reasonable assurance represents a high level of assurance, but provides no guarantee that an audit conducted in accordance with Austrian Standards on Auditing (and therefore ISAs), will always detect a material misstatement, if any. Misstatements may result from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

As part of an audit in accordance with Austrian Standards on Auditing, we exercise professional judgment and maintain professional skepticism throughout the audit.

Moreover:

- We identify and assess the risks of material misstatement in the consolidated financial statements, whether due to fraud or error, we design and perform audit procedures responsive to those risks and obtain sufficient and appropriate audit evidence to serve as a basis for our audit opinion. The risk of not detecting material misstatements resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or override of internal control.
- We 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.
- We evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.
- We conclude on the appropriateness of management's 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 audit report to the respective note in the consolidated financial statements. If such disclosures are not appropriate, we will modify our audit 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.
- We evaluate the overall presentation, structure and content of the consolidated financial statements, including the notes, and whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- We obtain sufficient appropriate audit evidence regarding the financial information of the entities and 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 audit committee regarding, amongst other matters, the planned scope and timing of our audit as well as significant findings, including any significant deficiencies in internal control that we identify during our audit.

- We communicate to the audit committee that we have complied with the relevant professional requirements in respect of our independence, that we will report any relationships and other events that could reasonably affect our independence and, where appropriate, the related safeguards.
- From the matters communicated with the audit committee, we determine those matters that were of most significance in the audit i.e. key audit matters. We describe these key audit matters in our auditor's report unless laws or other legal regulations preclude public disclosure about the matter or when in very rare cases, we determine that a matter should not be included in our audit report because the negative consequences of doing so would reasonably be expected to outweigh the public benefits of such communication.

Report on Other Legal Requirements

Group Management Report
In accordance with Austrian company law, the group management report is to be audited as to whether it is consistent with the consolidated financial statements and prepared in accordance with legal requirements.

Management is responsible for the preparation of the group management report in accordance with Austrian company law.

We have conducted our audit in accordance with generally accepted standards on the audit of group management reports as applied in Austria.

Opinion
In our opinion, the group management report is consistent with the consolidated financial statements and has been prepared in accordance with legal requirements.

Statement
Based on our knowledge gained in the course of the audit of the consolidated financial statements and our understanding of the Group and its environment, we did not note any material misstatements in the group management report.

Other Information
Management is responsible for other information. Other information is all information provided in the annual report, other than the consolidated financial statements, the group management report and the auditor's report. We expect the annual report to be provided to us after the date of the auditor's report.

Our opinion on the consolidated financial statements does not cover other information and we do not provide any kind of assurance thereon.

In conjunction with our audit, it is our responsibility to read this other information as soon as it becomes available, to assess whether, based on knowledge gained during our audit, it contains any material inconsistencies with the consolidated financial statements or any apparent material misstatement of fact.

Engagement Partner
The engagement partner is Mr. Helmut Kerschbaumer

Vienna, 25 February 2020

KPMG Austria GmbH
Wirtschaftsprüfungs- und Steuerberatungsgesellschaft

signed by:

Helmut Kerschbaumer
Wirtschaftsprüfer
(Austrian Chartered Accountant)

This report is a translation of the original report in German, which is solely valid.

The consolidated financial statements together with our auditor's opinion may only be published if the consolidated financial statements and the group management report are identical with the audited version attached to this report. Section 281 Paragraph 2 UGB (Austrian Commercial Code) applies.

Glossary

3D sensing — Sensing technologies incorporating the acquisition of depth information to capture image or spatial data in three dimensions

ANC — Active Noise Cancellation; technologies which improve the sound quality by significantly reducing background ambient noise

ASSP — Application-Specific Standard Product; integrated circuit which implements a specific function that appeals to a wide market and is intended for use by multiple OEMs as opposed to a specific design for a single customer (ASIC)

ASV — Active Stereo Vision; 3D sensing technology which uses two cameras for stereo image capture to calculate depth information by triangulation and employs pattern projection based on an IR light emitter (VCSEL laser) to enable high accuracy in the depth calculation process

BOLED — Behind-OLED; technology that enables sensors to be placed behind an OLED display and still accurately measure

CMOS — Complementary Metal-Oxide-Semiconductor; a widely used technology for constructing integrated circuits (ICs)

ESG — Environmental Social Governance

Global shutter — CMOS image sensor technology which is able to expose and readout all pixels to an image at the same time. By contrast, rolling shutter sensors do not expose all pixels at the same time, reading out from top to bottom. Global shutter technology allows for excellent quality imaging at high speeds

Internet of Things (IoT) — Network of physical objects fitted with electronics including sensors and network connections that enables these objects to collect and exchange data for remote sensing and control

IR — Infrared Radiation; an electromagnetic radiation with longer wavelengths than those of visible light and therefore generally invisible to the human eye

LIDAR — Light Detection And Ranging; measuring technology that measures distance by illuminating the target with pulsed laser light and processing the reflected pulses with a sensor. Differences in laser return times and wavelengths can then be used to make digital 3D representations of the target (3D LIDAR)

MEMS microphone — Microphone based on a pressure-sensitive diaphragm etched into a silicon wafer as a micro-electromechanical structure

OLED — Organic Light-Emitting Diode (LED); LED where the emissive electroluminescent layer is an organic compound that emits light in response to an electric current. OLEDs are used to create high performance digital displays for devices such as smartphones, television screens, and computer displays

QE — Quantum Efficiency; measure of the effectiveness of an imaging device to convert incident photons into electrons

SL — Structured Light; 3D sensing technology which projects a known pattern (often dots) onto a scene by emitting IR light provided by a VCSEL laser. The deformation of the pattern when striking surfaces allows vision systems to calculate the depth and surface information of the objects in the scene

ToF (iToF & dToF) — Time-of-Flight; 3D sensing technology which is able to resolve distance between the camera and an object for each point of the scanned image, by measuring the time between emission of a light signal provided by a laser (VCSEL) and detection of the reflected signal. Measurement can be achieved via a direct (dToF) or an indirect (iToF) method requiring different sensing systems

VCSEL — Vertical-Cavity Surface-Emitting Laser; laser diode with laser beam emission perpendicular to the top surface allowing high quality laser beam shape and emission

Imprint

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Design and layout: Rubikon Werbeagentur, Graz (www.rubikon.at)

This report has been printed on Munken Polar 130g and 300g which is FSC certified.

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